

The Impact of Smartphones on Purchasing Behavior in the Healthcare: Insights from the Theory of Planned Behavior

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Abstract: This study investigates the influence of personality, behavioral patterns, and perceived behavior on purchase intention and their subsequent impact on purchase. Data were collected from 310 respondents in Delhi/NCR, India between January and March 2024. Regression analysis showed that all three factors with the best model rules could predict a good purchase. Furthermore, purchase intention was shown to have a positive impact on purchase behavior, highlighting the importance of intention as a leader in actual decision making. The findings provide insights for marketers to develop strategies that bridge the gap between emotions and actual purchasing behavior.

Keywords: Consumer Behavior, Healthcare Sector, Smartphone Usage, Purchase Intention, Buying Behavior.

1. Introduction

Consumer purchase intention, an essential measure of buying behavior, is influenced by a mix of psychological and social factors. Key determinants include attitude, subjective norms, and perceived behavioral control (Munera et al., 2021; Shah et al., 2021). Attitude represents a person's overall assessment of a product or service, which can be positive or negative. Subjective norms refer to the perceived social pressure to engage in or refrain from specific behaviors, whereas perceived behavioral control evaluates an individual's belief in their capability to carry out the behavior.

Together, these factors influence the formation of purchase intentions, making them essential for predicting consumer choices (Kähkönen et al., 2023). Attitude plays a vital role in shaping purchase intention by reflecting personal beliefs and preferences toward a product or service. A positive attitude often leads to stronger intentions to buy, while a negative attitude diminishes such likelihood. Subjective norms, on the other hand, underscore the impact of societal and peer influences on decision-making. For example, recommendations from family or friends, or societal expectations, can significantly sway consumer behavior. These norms reflect the alignment between individual preferences and collective expectations, which can either encourage or deter purchase intentions (Buriro et al., 2019).

Perceived behavioral control adds a practical dimension to the decision-making process by evaluating the perceived ease or difficulty of making a purchase. Factors such as financial resources, time availability, and access to the product can significantly impact this perception. High perceived control can enhance purchase intention, while perceived barriers can deter it (Singh, 2021). By exploring the dynamic relationship between these three constructs—attitude, norms, and control—marketers and businesses can gain actionable insights to design effective strategies, address consumer concerns, and enhance the overall buying experience (Ho-sam-sooi et al., 2021).

Understanding consumer purchasing behavior in the healthcare sector is essential for healthcare providers, marketers, and policymakers. The sector's complexity, characterized by significant health and financial implications, makes it critical to grasp the factors influencing purchasing decisions. With the growing reliance on smartphones, they have become a significant tool in the decision-making process for healthcare products and services (Dadhich & Bhaumik, 2023). Recent studies have utilized the Theory of Planned Behavior (TPB) to examine the factors influencing healthcare purchasing, such as attitudes, subjective norms, and perceived behavioral control. Smartphones have increasingly become a significant influence on these factors, affecting both purchase intentions and actual buying behavior. The Theory of Planned Behavior was developed by Icek Ajzen. emphasizes three primary predictors: attitudes toward a product or service, subjective norms (societal influences), and perceived behavioral control (ease of access or resources). Smartphones are now embedded in all three areas, from shaping attitudes through online reviews and advertisements, to impacting subjective norms via social media and peer influence, and finally, enabling perceived behavioral control by providing easy access to health-related products and services (Ajzen, 1991). This paper aims to examine how smartphones influence consumer purchase intentions and behaviors within the healthcare industry. Through a synthesis of existing research and empirical data, we will provide insights into how smartphones mediate these purchasing decisions.

2. Literature Review

2.1 Attitude and buying intention

Attitudes refer to consumer beliefs regarding the effectiveness, safety, and value of healthcare products. Smartphones influence these attitudes by providing instant access to information, reviews, and health-related content. Positive experiences and perceptions through smartphones can heighten purchase intention, while negative online information can deter purchases (Munera et al., 2021). Research has shown that attitudes toward healthcare products significantly influence purchasing decisions, especially when mediated by smartphone use, which offers a convenient way to access product details, testimonials, and comparative features.

H1. Attitude has a significant impact on purchase intention

2.2 Subjective norms and purchase intention

Subjective norms refer to the perceived social pressure to engage in specific behaviors. shaped by recommendations from healthcare professionals or peers. Smartphones facilitate this by providing direct communication through online forums, social media, and telemedicine platforms, allowing influencers and professionals to sway consumer opinions (Dadhich et al., 2024). These platforms have a significant effect on healthcare-related decisions, as users rely on the guidance of family, friends, and digital communities. Hence, smartphones are crucial in shaping subjective norms related to healthcare products.

H2. Subjective norms have a significant impact on purchase intention.

2.3 Perceived behavioural control and purchase intention

Perceived behavioral control refers to an individual's confidence in their ability to perform a behavior. In healthcare, this can relate to the accessibility and affordability of healthcare products or services. Smartphones contribute to this perception by providing easy access to product availability, online purchasing, and payment systems, making consumers feel more in control of their health decisions (Dadhich & Yadav Neetu, 2024). As such, smartphone usage enhances perceived behavioral control, which increases the likelihood of making a purchase.

H3. Perceived behavioral control has a significant impact on purchase intention

2.4 Purchase intention refers to the likelihood of purchasing a product or service, influenced by factors such as attitudes, subjective norms, and perceived control. The growing influence of smartphones in shaping these factors enhances the connection between purchase intention and actual buying behavior (Gaurav Kumar Singh & Manish Dadhich, 2023). Consumers who express a high purchase intention, influenced by smartphone-driven content, are more likely to act on those intentions, purchasing healthcare products or services.

H4. Purchase intention has a significant impact on purchase intention

3. Research Methodology

The main aim of this study was to develop a conceptual framework for the predictors of purchase intention in the healthcare sector. Therefore, the research design was customer-oriented. Further, the conceptual framework was tested and validated using Regression analysis. The study was conducted in Delhi/NCR, India, during the months of January to March 2024. Data was collected by the researcher by approaching the respondents. The selection of respondents for the survey was three-fold. First, the researcher collected the data from customers using a random sampling technique. In the second stage, informants were identified using a convenient sampling technique. After obtaining data from the informants, they were requested to provide information about participants willing to participate in the survey. This was achieved through a snowball sampling technique. After gathering the information, participants were contacted either personally or by phone. Once they agreed, questionnaires were distributed. A total of 356 questionnaires were handed out, with 310 completed responses ultimately being included in the analysis. The remaining responses were discarded due to missing answers or refusals to complete the questionnaire. Therefore, the final sample size consisted of 310 customers. The questionnaire used in this study was developed based on prior literature, and all items were measured on a Likert scale (ranging from 5 = strongly agree to 1 = strongly disagree). Scales to assess attitude, subjective norms, perceived behavioural control, purchase intention, and buying behaviour were adopted from previous studies.

4. Data Analysis and Findings

Table 1 presents the demographic summary of the respondents ($n=310$). The gender distribution indicates that 58.38% were male (181 respondents), while 41.61% were female (129 respondents). The largest age group was 25–30 years (42.5%), followed by 31–35 years (26.7%), 36–40 years (18.3%), and above 40 years (12.2%). Regarding income, the majority earned ₹20,000–₹25,000 (35.4%), followed by ₹26,000–₹30,000 (28.7%), ₹31,000–₹40,000 (14.5%), ₹41,000–₹50,000 (12.2%), and above ₹50,000 (9.0%). This distribution highlights a diverse sample across gender, age, and income levels, contributing to the study's comprehensiveness (see Table 1).

Table 1. Demographic summary

Gender ($n=310$)	Frequency (%)
Male	181(58.38)
Female	129(41.61)
Age ($n=310$)	
25-30	132(42.5)
31-35	83(26.7)
36-40	57 (18.3)
Above 40 years	38(12.2)
Income ($n=310$)	
20000-25000	110(35.4)
26000-30000	89(28.7)
31000-40000	45(14.5)
41000-50000	38(12.2)
Above 50000	28(9.0)

4.1 Impact of Attitude, Norms, and Control on Purchase Intention

Table 2 summarizes the regression analysis results, indicating the effects of attitude, subjective norms, and perceived behavioral control on purchase intention. Subjective norms had the most significant influence ($\beta=0.424$, $t=4.726$), highlighting the strong impact of social pressures on consumer decisions. Attitude also contributed positively ($\beta=0.195$, $t=2.118$), though its influence was less pronounced. Perceived behavioral control showed a moderate effect ($\beta=0.156$, $t=2.765$), emphasizing the role of perceived ease or difficulty in shaping intentions. These findings reveal that subjective norms are the most critical factor, followed by attitude and perceived control, in driving purchase intentions.

Table 2: Coefficient of Attitude, Norms, and Control on Purchase Intention

Factors	Unstandar. Coefficients	Std. Error	Standard. Coefficients	t	Sig.
	B		Beta		
(Constant)	1.369	0.158		8.687	0.000
Attitude	0.228	0.108	0.195	2.118	0.035
Subjective Norms	0.563	0.119	0.424	4.726	0.000
Perceived Behavioural control	0.210	0.076	0.156	2.765	0.000

Regression analysis showed that attitudes, subjective norms, and perceived behavioral control positively influence purchase intentions in the healthcare sector. Notably, the effect of subjective norms was the strongest, suggesting that smartphone-mediated social influences significantly impact purchase decisions. Smartphone use increases consumer access to social networks and professional advice, which in turn shapes their intentions to purchase healthcare products.

4.2 Impact of Purchase Intention on Buying Behaviour

Table 3 presents the results of the regression analysis examining the impact of purchase intention on buying behavior. The constant term is significant with ($B=0.439$, $t=3.345$), indicating a significant baseline effect. Purchase intention itself shows a strong positive impact on buying behavior, with a standardized coefficient of ($\beta=0.692$, $t=17.643$), suggesting that purchase intention is a strong predictor of actual buying behavior. This highlights the critical role that a consumer's intention plays in translating into actual purchase actions.

Table 3: Coefficients Impact of Purchase Intention on Buying Behaviour

Factors	Unstandar. Coefficients	Std. Error	Standard. Coefficients	t	Sig.
	B		Beta		
(Constant)	0.439	0.131		3.345	0.001
Purchase Intention	0.838	0.047	0.692	17.643	0.000

The analysis revealed that purchase intention strongly predicts actual buying behavior, with smartphone usage playing a key role in bridging this gap. Consumers who reported higher purchase intentions, influenced by smartphone-based information, were significantly more likely to follow through with their purchases.

5. Implication of the study

The results of this study have important implications for business strategies. The benefits of content show that businesses can use social influences such as peer recommendations, endorsements, or social media to create customers who want to buy. Since social norms have been proven to be the most important, marketing strategies that use social proof and follow social expectations can be good at encouraging potential customers to make purchasing decisions. In addition, the positive impact of the character shows the importance of creating a good impression about the product by agreeing on the right and consistent price, and planning messages that suit customer needs. Additionally, research highlights the importance of understanding behavioral control in the formation of purchase intentions. Addressing issues such as price, availability, and accessibility can increase customer confidence and facilitate the purchase process. Since purchase intentions are related to actual purchase behavior, companies should focus on strategies that bridge the gap between thought and action, such as time awareness, media awareness, and self-awareness. By integrating this information into their marketing strategies, businesses can increase conversion rates and create stronger, more loyal customers.

6. Limitations and Future Scope

Although insightful, this study has several limitations. First, the study is geographically limited to the Delhi/NCR region and may not be representative of diverse consumers in other parts of India or globally. Data was collected from 310 respondents and purchasing behavior from Delhi/National Capital Region, India between January and March 2024. Additionally, the study relied on a cross-sectional design, which provides a snapshot of a specific time period but does not account for changes in consumer behavior and attitudes during that time. Longitudinal studies may provide more insight into the evolving nature of purchase intentions and their long-term impact on purchasing behavior. Future research may use mixed methods, combining qualitative interviews or focus groups across multiple studies, to gain a better understanding and be more useful in consumer decision-making. Additionally, although the primary focus of the study is on personality, behavioral patterns, and behavioral control, other psychological and environmental factors, such as emotions, confidence, and financial influences, may also play an important role in deliberation and purchase. The lack of a design that captures all influences in a single framework also limits recommendations. Further research and development of more detailed models will provide greater insight into consumer decision-making processes.

7. Conclusion

This study highlights the important role of smartphones in shaping purchase intentions and actual purchase behavior in the healthcare sector. Smartphones influence consumer behavior, behavioral patterns, and perceived management behavior, thereby driving the purchasing image. These findings suggest that healthcare marketers and policy makers should use smartphone tools such as mobile applications, online reviews, and social media platforms to influence consumer behavior and the increased use of medical products. Furthermore, this study highlights the importance of integrating digital tools into marketing strategies to increase customer engagement and encourage informed purchasing decision-making. Consumer attitudes and perceptions, in turn, lead to changes in purchase intentions and ultimately behavior. However, it is important to note that although purchase intention is a strong predictor of behavior, it is not the primary factor at play. Other variables such as social norms, behavioral control, and situational factors can also influence consumer behavior and should be considered in the model. In summary, this study highlights the important role of purchase intention in the formation of consumer behavior and emphasizes the importance of understanding and targeting this construct in business and policy development. Organizations can achieve desired results and meet customer needs and preferences by focusing on strategies that influence purchase intention.

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