

A Study on Consumer Buying Behaviour Towards E-Pharmacy

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ABSTRACT

The rapid advancement of information technology has significantly transformed various sectors, including healthcare, leading to the emergence of e-pharmacy services. E-pharmacy refers to online platforms that enable consumers to purchase medicines and healthcare products through websites or mobile applications with doorstep delivery facilities. These platforms integrate pharmaceutical services with digital technology, offering features such as online prescription uploads, medicine price comparison, digital payments, health information access, and convenient home delivery. The increasing penetration of smartphones, internet connectivity, and digital literacy has accelerated the adoption of e-pharmacy services, particularly among urban populations and working individuals.

The primary objective of this study is to analyze consumer awareness, perception, usage behavior, advantages, challenges, and satisfaction levels associated with e-pharmacy services. The research adopts a descriptive research design based on both primary and secondary data sources. Primary data was collected through a structured questionnaire distributed among respondents familiar with online healthcare services, while secondary data was gathered from research articles, healthcare reports, and digital publications. The collected data was organized and analyzed using tabulation and percentage analysis techniques to identify trends and patterns in consumer behavior.

The findings of the study indicate that convenience, time-saving benefits, availability of discounts, and easy accessibility are the major factors encouraging consumers to adopt e-pharmacy platforms. Home delivery services and the ability to order medicines at any time significantly enhance customer satisfaction. However, the study also identifies key challenges such as concerns regarding medicine authenticity, data privacy, delayed deliveries, and lack of direct interaction with pharmacists. These factors influence consumer trust and limit complete dependence on online pharmacy services.

The research concludes that e-pharmacy has strong potential to transform healthcare delivery by improving accessibility and efficiency, especially in urban and semi-urban areas. Nevertheless, strengthening regulatory frameworks, ensuring strict quality control, enhancing delivery reliability, and increasing consumer awareness are essential for building long-term trust and sustainable growth. With continuous technological advancements and supportive government policies, e-pharmacy services are expected to become an integral component of the digital healthcare ecosystem in the future.

Keywords: E-Pharmacy, Digital Healthcare, Online Medicine Delivery, Consumer Behaviour, Healthcare Technology, Customer Satisfaction, Online Pharmacy Services.

CHAPTER 1: INTRODUCTION

The healthcare industry has undergone significant transformation with the advancement of digital technology and increasing internet accessibility. One of the major developments in this sector is the emergence of e-pharmacy, which allows consumers to purchase medicines and healthcare products through online platforms such as websites and mobile applications. E-pharmacy services provide features including online ordering, prescription uploads, digital payments, and home delivery of medicines. These services aim to improve accessibility, convenience, and efficiency in healthcare delivery, especially for individuals with busy schedules, elderly patients, and people living in remote areas.

The rapid growth of smartphones and digital payment systems has encouraged consumers to adopt online services in various sectors, including healthcare. The COVID-19 pandemic further accelerated the acceptance of e-pharmacy platforms as consumers preferred contactless purchasing methods to minimize health risks. Online pharmacies became an essential solution during lockdown periods when physical mobility was restricted. As a result, e-pharmacy platforms gained popularity and became an important component of the digital healthcare ecosystem.

Despite the increasing adoption of e-pharmacy services, several challenges continue to influence consumer acceptance. Concerns related to medicine authenticity, prescription verification, delivery reliability, and data privacy remain significant issues. Many consumers still prefer traditional pharmacies because of immediate medicine availability and direct interaction with pharmacists. Therefore, it becomes important to study consumer perception, satisfaction levels, and factors influencing the adoption of e-pharmacy services.

The main purpose of this research is to understand the concept and growth of e-pharmacy, analyze consumer awareness and usage behavior, identify advantages and challenges associated with online pharmacy services, evaluate customer

satisfaction, and examine the future potential of e-pharmacy in the healthcare sector. The study focuses on consumer perception regarding convenience, accessibility, pricing, delivery efficiency, and trust in digital healthcare platforms. The research is based on survey responses and secondary information collected from academic articles, reports, and online sources related to digital healthcare services.

This study is significant because it helps businesses understand changing healthcare purchasing behavior and supports e-pharmacy companies in improving service quality. It also provides insights for policymakers in developing appropriate regulations for online pharmaceutical services. Furthermore, the research contributes to academic understanding of technology adoption in healthcare and the growing role of digital platforms in improving healthcare accessibility.

CHAPTER 2: LITERATURE REVIEW

The literature review examines existing studies related to e-pharmacy services and the growing adoption of digital healthcare platforms. With technological advancement and increased internet penetration, healthcare delivery systems have gradually shifted toward digital solutions. Researchers have identified e-pharmacy as an innovative model that integrates pharmaceutical services with e-commerce technology, allowing consumers to order medicines online and receive them at their doorstep. Earlier studies suggest that online pharmacies improve accessibility to medicines, particularly for individuals living in remote areas and patients requiring regular medication.

Several studies have highlighted the rapid expansion of online healthcare services due to widespread smartphone usage and improved digital payment infrastructure. The development of mobile applications and efficient logistics networks has made online medicine delivery faster and more reliable. Researchers also observed that the COVID-19 pandemic played a significant role in accelerating consumer acceptance of e-pharmacy services, as people preferred contactless purchasing options to reduce physical interaction and health risks. This shift contributed to increased awareness and trial usage of online pharmacy platforms.

Consumer behavior toward e-pharmacy adoption has been widely studied, with findings indicating that convenience and time-saving benefits are major motivating factors. Online platforms allow customers to compare prices, access product information, and place orders at any time, which enhances user experience. Studies show that younger consumers and working professionals are more inclined to use e-pharmacy services due to busy lifestyles and familiarity with digital technology. However, trust remains a critical factor influencing adoption, as consumers often question the authenticity and safety of medicines purchased online.

Previous research has emphasized several advantages of e-pharmacy services, including home delivery, availability of discounts, easy prescription management, and improved access to healthcare information. These features contribute to higher customer satisfaction and encourage repeat usage. Online pharmacies also support medication adherence by providing reminders and digital records, which can improve patient health outcomes.

Despite these benefits, researchers have identified various challenges associated with e-pharmacy platforms. Concerns regarding counterfeit medicines, delayed deliveries, lack of personal interaction with pharmacists, and data privacy risks continue to affect consumer confidence. Regulatory uncertainty and the need for strict prescription verification systems have also been highlighted as major issues in several studies. Many consumers still rely on traditional pharmacies for urgent medical needs because of immediate product availability and face-to-face consultation.

Existing literature indicates that while e-pharmacy adoption is increasing globally, there remains limited research focusing on consumer perception and satisfaction in developing markets where traditional pharmacies continue to dominate. Therefore, this study aims to analyze consumer awareness, usage behavior, benefits, and challenges associated with e-pharmacy services in order to better understand their future growth potential within the healthcare industry.

CHAPTER 3: RESEARCH METHODOLOGY

Research methodology refers to the systematic process used to collect, organize, and analyze data in order to achieve the objectives of the study. The present research adopts a descriptive research design to understand consumer perception and behavior toward e-pharmacy services. Descriptive research is suitable for this study because it focuses on explaining existing conditions, opinions, and attitudes of consumers regarding online medicine purchasing rather than testing any experimental relationship. The methodology helps in presenting reliable findings related to awareness, usage patterns, satisfaction levels, and challenges associated with e-pharmacy platforms.

The study is based on both primary and secondary data sources. Primary data was collected directly from respondents through a structured questionnaire designed to gather information about consumer awareness, frequency of usage, convenience factors, pricing perception, delivery experience, and trust toward e-pharmacy services. The questionnaire included close-ended questions to ensure clarity and ease of analysis. Secondary data was collected from academic

journals, research articles, online publications, healthcare reports, and relevant websites to support theoretical understanding and provide background information about digital healthcare and online pharmacy systems.

The data collection method used in this research was the survey method, as it allows information to be gathered from a large number of respondents within a limited time period. Respondents were selected using a convenience sampling technique, where participants were chosen based on accessibility and willingness to participate in the survey. This sampling method was appropriate due to time limitations and the exploratory nature of the study. The sample consisted of individuals from different age groups and occupations who were familiar with online services or had experience purchasing medicines.

After collecting the responses, the data was organized using tabulation methods and analyzed through percentage analysis and comparative interpretation. These techniques helped in identifying patterns, trends, and consumer preferences related to e-pharmacy usage. The analysis focused on understanding factors influencing adoption, customer satisfaction, and perceived advantages and challenges of online pharmacy platforms.

Although every effort was made to ensure accuracy, the study has certain limitations. The sample size was limited and may not fully represent the entire population. The responses were based on personal opinions, which may include bias. Time constraints and geographical limitations also restricted wider data collection. Despite these limitations, the methodology provides a reasonable basis for understanding consumer perception toward e-pharmacy services.

CHAPTER 4: DATA PRESENTATION AND ANALYSIS

This chapter presents the analysis and interpretation of data collected through the survey conducted for the study on e-pharmacy services. The purpose of data presentation is to organize the responses in a systematic manner and interpret them to understand consumer awareness, usage behavior, satisfaction level, and perception toward online pharmacy platforms. The collected data was arranged using tabulation and percentage analysis methods to identify trends and patterns related to consumer preferences and experiences.

The analysis indicates that a majority of respondents are aware of e-pharmacy services, mainly through mobile applications, social media advertisements, and online platforms. Increased internet usage and digital literacy have played an important role in spreading awareness about online medicine delivery services. Younger respondents showed higher awareness levels compared to older age groups, suggesting that familiarity with technology influences adoption.

The findings also reveal that consumers primarily use e-pharmacy platforms for convenience and time-saving benefits. Many respondents prefer ordering medicines online because it eliminates the need to visit physical stores and wait in queues. Home delivery services were considered highly beneficial, especially for working individuals and patients requiring regular medication. However, some respondents reported using e-pharmacy services only occasionally, mainly during emergencies or when discounts were available.

Pricing and discounts emerged as another important factor influencing consumer behavior. Several respondents perceived online pharmacies as cost-effective due to promotional offers, cashback options, and price comparisons. Despite this advantage, a section of respondents believed that delivery charges sometimes reduce overall savings, particularly for small orders. This indicates that price sensitivity continues to influence consumer decisions.

The study also examined consumer trust and safety perception regarding e-pharmacy platforms. While many users expressed satisfaction with service quality and ordering convenience, concerns were raised about medicine authenticity and reliability of delivery timelines. Some respondents still preferred traditional pharmacies for urgent medical needs because medicines are immediately available and professional advice can be obtained directly from pharmacists.

Customer satisfaction levels were generally moderate to high, depending on delivery speed, product availability, and app usability. Respondents who experienced timely delivery and accurate orders reported higher satisfaction and were more likely to recommend e-pharmacy services to others. On the other hand, delayed deliveries and stock unavailability negatively affected user experience.

Overall analysis suggests that e-pharmacy services are gaining acceptance due to convenience, accessibility, and competitive pricing, but challenges related to trust, delivery reliability, and consumer awareness remain important factors influencing adoption. The results indicate that online and traditional pharmacy models currently coexist, with consumers choosing between them based on urgency, cost considerations, and personal preference.

CHAPTER 5: FINDINGS

The analysis of collected data highlights several important findings regarding consumer perception and adoption of e-pharmacy services. The study reveals that awareness of e-pharmacy platforms is relatively high among respondents, mainly due to increased internet usage, mobile applications, and digital advertising. Younger consumers and working

professionals demonstrate greater familiarity and acceptance of online medicine purchasing compared to older individuals, indicating that technological exposure plays a significant role in adoption.

Convenience emerged as the most influential factor encouraging consumers to use e-pharmacy services. Respondents appreciated the ability to order medicines anytime without visiting physical stores, especially during busy schedules or health-related limitations. Home delivery services were considered highly beneficial for patients requiring regular medication and for individuals seeking contactless purchasing options. Time-saving benefits significantly contributed to positive consumer perception.

Pricing and discount offers were also identified as strong motivating factors. Many respondents believed that online pharmacies provide better price comparisons and promotional benefits, making medicines more affordable. However, delivery charges and minimum order requirements sometimes reduced perceived savings, particularly for smaller purchases. This indicates that consumers remain price-sensitive while choosing between online and offline pharmacy options.

The study further found that trust and safety concerns continue to influence consumer decisions. Although users appreciated convenience and accessibility, some respondents expressed doubts regarding medicine authenticity and delivery reliability. Traditional pharmacies were still preferred in urgent situations due to immediate availability of medicines and direct interaction with pharmacists. Customer satisfaction levels were generally positive but depended heavily on delivery speed, product availability, and service reliability.

Overall, the findings suggest that e-pharmacy services are steadily gaining acceptance, but consumer trust, regulatory assurance, and consistent service quality are essential for long-term growth and wider adoption.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

The present study examined the concept, growth, consumer perception, and adoption of e-pharmacy services within the evolving digital healthcare environment. The findings indicate that e-pharmacy has emerged as an important innovation in the healthcare sector by combining pharmaceutical services with digital technology to improve accessibility and convenience for consumers. The increasing penetration of smartphones, internet connectivity, and digital payment systems has significantly contributed to the expansion of online pharmacy platforms. Consumers are gradually becoming more comfortable using digital services for healthcare needs, reflecting a broader shift toward technology-driven lifestyles.

The research shows that convenience is the primary factor influencing the adoption of e-pharmacy services. Consumers value the ability to order medicines from home without the need to visit physical stores, particularly during busy schedules, health emergencies, or mobility limitations. Home delivery services not only save time but also provide comfort to elderly individuals and patients requiring regular medication. The availability of medicines at any time and easy access through mobile applications further enhance user satisfaction and encourage repeat usage.

Another important conclusion derived from the study is the role of pricing and promotional strategies in attracting customers. Online pharmacy platforms often provide discounts, cashback offers, and price comparisons that make medicines appear more affordable. These financial benefits motivate consumers to try e-pharmacy services, especially for non-urgent purchases. However, the study also indicates that delivery charges and minimum order conditions can influence purchasing decisions, suggesting that consumers remain highly price-conscious when selecting healthcare services.

Despite the advantages offered by e-pharmacy platforms, trust and safety concerns continue to present challenges for widespread adoption. Some consumers remain hesitant due to doubts regarding medicine authenticity, prescription verification, and data privacy. The absence of direct interaction with pharmacists also creates uncertainty for individuals who rely on professional advice before purchasing medicines. As a result, traditional pharmacies continue to hold importance, particularly for urgent medical needs where immediate availability and personal consultation are essential. This demonstrates that the transition toward digital healthcare is gradual rather than complete.

The study further concludes that customer satisfaction with e-pharmacy services depends largely on delivery efficiency, product availability, user-friendly applications, and reliable customer support. Positive service experiences increase the likelihood of recommendations and long-term usage, while delayed deliveries or incorrect orders negatively affect consumer trust. Therefore, maintaining service consistency is critical for sustaining customer loyalty in a competitive digital healthcare market.

Based on the findings, several recommendations can be made to enhance the effectiveness and acceptance of e-pharmacy services. Online pharmacy platforms should strengthen quality assurance systems to ensure authenticity and safety of medicines. Strict prescription verification processes and transparent information about medicine sources can help build

consumer confidence. Improving logistics networks and delivery tracking systems can enhance reliability and reduce customer dissatisfaction. Companies should also focus on educating consumers about safe online medicine purchasing practices through awareness campaigns and digital guidance.

Regulatory authorities play a crucial role in supporting the growth of e-pharmacy services by establishing clear guidelines and monitoring mechanisms. Strong legal frameworks can protect consumers from counterfeit medicines and ensure ethical practices within the industry. Collaboration between healthcare professionals, pharmacists, and digital platforms can further improve service quality and create a balanced healthcare ecosystem.

In conclusion, e-pharmacy has strong potential to reshape the future of healthcare delivery by improving accessibility, affordability, and efficiency. While traditional pharmacies continue to remain relevant, the integration of digital solutions into pharmaceutical services represents a progressive step toward modern healthcare systems. With improved regulation, enhanced consumer trust, technological innovation, and consistent service quality, e-pharmacy services are expected to play a vital role in advancing healthcare accessibility and supporting the ongoing digital transformation of the healthcare industry.

CHAPTER 7: REFERENCES

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