

## E-Commerce Adoption and Competitive Advantage: Analysing Its Effect on Pharmaceutical Stores in Anambra State, Nigeria

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### Abstract

*This study examined the effect of e-commerce adoption on the competitive advantage of pharmaceutical stores in Anambra State, Nigeria. Utilizing a descriptive survey research design, data were collected from 337 registered stores through structured questionnaires. The analysis included descriptive and inferential statistics, particularly multiple regression analysis using SPSS version 27. The findings revealed that online sales significantly enhanced the competitive advantage of pharmaceutical stores, with a positive relationship established between digital marketing efforts and improved customer engagement. Specifically, online sales showed a coefficient of 0.247, indicating a strong impact on competitive advantage, while digital marketing contributed a coefficient of 0.115. These results underscored the critical role of e-commerce strategies in driving operational efficiency and customer satisfaction. The study concluded that the adoption of e-commerce tools is essential for pharmaceutical stores to maintain competitiveness in a rapidly evolving market. It recommended that store owners upgrade their e-commerce platforms for better usability and security, and implement targeted digital marketing strategies to enhance customer engagement. Furthermore, investing in customer feedback systems and expanding online product offerings were advised to improve overall business performance and sustainability.*

### INTRODUCTION

The increasing globalization of commerce and the rapid development of information and communication technology (ICT) have revolutionized the way businesses operate, particularly through the adoption of e-commerce. E-commerce, which involves the buying and selling of goods and services over the internet, has become an essential tool for businesses seeking to improve competitive advantage, reduce costs, and enhance their competitive advantage (Laudon & Traver, 2022). In Nigeria, the adoption of e-commerce has gained momentum over the past decade, influenced by factors such as improved internet penetration, the proliferation of mobile devices, and a growing middle class that is increasingly tech-savvy (Eze & Obikeze, 2022). Pharmaceutical stores in Anambra State, like in other parts of Nigeria, operate in a highly competitive and regulated market. As noted by Udeh and Chukwuemeka (2022), the integration of e-commerce technologies can lead to significant improvements in competitive

advantage, which is a critical determinant of competitive advantage in the pharmaceutical industry.

Online sales platforms have become a fundamental aspect of e-commerce, allowing businesses to reach a broader audience beyond their physical locations. For pharmaceutical stores, adopting online sales channels can lead to significant improvements in competitive advantage by automating sales processes, reducing the need for physical store space, and enabling 24/7 customer access (Ogunleye & Adebayo, 2023). The convenience of online shopping is particularly beneficial in a sector where timely access to medication can be critical. Moreover, online sales can help pharmaceutical stores in Anambra State to manage inventory more effectively by providing real-time data on customer purchases, thus reducing the risk of stockouts or overstocking (Adebisi & Izuogu, 2023).

Digital marketing is another critical component of e-commerce that can significantly impact the competitive advantage of pharmaceutical stores. Digital marketing strategies, such as search engine optimization (SEO), social media marketing, and email marketing, allow businesses to target specific customer segments more effectively than traditional marketing methods (Nwachukwu & Ibe, 2022). By enhancing customer engagement and loyalty, digital marketing contributes to the overall competitiveness of pharmaceutical stores, particularly in a market like Anambra State, where customer preferences are increasingly shifting towards digital interactions.

Competitive advantage in pharmaceutical stores is determined by various factors that signal superior performance and market position. According to Sharma et al. (2022), competitive advantage enables pharmaceutical stores to optimize their resources and streamline processes, which is critical for maintaining competitiveness in a market characterized by strict regulatory oversight and high customer expectations. Efficiency in operations not only reduces costs but also enhances the store's ability to meet customer demands promptly and reliably, thereby contributing to sustained market leadership. These digital strategies are increasingly critical for pharmaceutical stores in Anambra State to remain competitive and efficient in a rapidly evolving marketplace.

The rapid advancement of technology has significantly impacted the pharmaceutical sector, particularly in Anambra State, where the adoption of e-commerce presents both opportunities and challenges. Many pharmaceutical stores struggle to integrate digital tools into their business models, raising critical questions about the influence of e-commerce on their competitive landscape. This reliance on traditional practices often results in bureaucratic inefficiencies, leading to delays in operations, inadequate communication, and reduced customer satisfaction. The inability to adapt to these changes not only hampers individual store performance but also affects the overall competitiveness of the pharmaceutical market in the region. One of the primary issues facing these stores is the shift toward online sales as consumer preferences evolve toward convenience and accessibility. While some stores have embraced online platforms, many still lag behind, risking customer retention and profitability. The challenge lies in determining whether those that successfully implement online sales can gain a competitive edge over traditional models. Therefore, this study is poised to examine

effect of e-commerce adoption (online sales and digital marketing) on competitive advantage among pharmaceutical stores in Anambra State, Nigeria.

The significance of this study on e-commerce adoption and competitive advantage among pharmaceutical stores in Anambra State lies in its potential to contribute to both academic knowledge and practical applications within the pharmaceutical industry. First, the study will provide valuable insights into how e-commerce tools—such as online sales platforms, digital marketing, e-payment systems, website quality, and social media engagement—can enhance the competitive advantage of pharmaceutical stores. By focusing on a region-specific context, the study will fill a critical gap in the literature, offering empirical evidence on the unique challenges and opportunities faced by pharmaceutical stores in Anambra State. This is particularly important as most existing research has concentrated on broader retail sectors or other geographic regions, leaving the dynamics of the pharmaceutical industry in this area underexplored.

Furthermore, the findings of this study will have significant practical implications for pharmaceutical store owners, managers, and policymakers in Anambra State. By identifying the key e-commerce strategies that contribute to competitive advantage, the study will provide actionable recommendations for improving competitive advantage and customer satisfaction. These insights can guide business owners in making informed decisions about technology investments and digital strategies, ultimately leading to more robust business performance and sustainability. For policymakers, the study could inform the development of supportive frameworks and policies that encourage the adoption of e-commerce in the pharmaceutical sector, contributing to the broader goal of enhancing healthcare delivery and economic growth in the region. Overall, this study has the potential to drive positive change in the pharmaceutical industry by highlighting the critical role of e-commerce in fostering competitiveness and efficiency.

## **LITERATURE REVIEW**

### **E-commerce adoption**

E-commerce adoption has revolutionized various sectors worldwide, including the pharmaceutical industry, by offering businesses new avenues for growth, efficiency, and customer engagement. The process of adopting e-commerce involves integrating digital tools and platforms to facilitate online transactions, marketing, communication, and customer service. For pharmaceutical stores, e-commerce adoption includes the implementation of online sales platforms, digital marketing strategies, e-payment systems, user-friendly websites, and active social media engagement. These components not only streamline operations but also enhance competitive advantage by providing better access to markets and improving customer satisfaction (Ajayi & Osakwe, 2019). In recent years, the push towards e-commerce adoption in developing countries, including Nigeria, has been driven by the rapid growth of internet penetration, the proliferation of mobile devices, and the increasing demand for convenient shopping experiences (Adekunle et al., 2021).

### **Online Sales**

The proliferation of the internet and digital technologies has fundamentally transformed the retail landscape, giving rise to the phenomenon of online sales. Online sales, also known as e-commerce, refer to the buying and selling of goods and services over the internet. This mode of commerce has grown exponentially over the past two decades, driven by the increasing penetration of smartphones, advancements in payment technologies, and shifting consumer preferences toward convenience and accessibility. In recent years, the COVID-19 pandemic has further accelerated the adoption of online sales globally, including in developing regions like Nigeria, where traditional brick-and-mortar retail models have been challenged by restrictions on physical movement and the need for contactless transactions (Adebisi & Olayinka, 2021). Online sales offer several advantages to both businesses and consumers. For businesses, an online presence extends their reach beyond geographic limitations, allowing them to tap into a broader customer base. Moreover, online sales platforms provide businesses with valuable data analytics tools, enabling them to track customer behaviour, optimize inventory management, and personalize marketing strategies (Eze, 2020). For consumers, online sales offer unparalleled convenience, enabling them to shop at any time from the comfort of their homes. The ability to compare prices across multiple platforms and read customer reviews also empowers consumers to make informed purchasing decisions (Nwankwo & Chukwuma, 2022).

Another important aspect of online sales is the role of social media platforms in driving e-commerce. Social media has become a powerful tool for businesses to engage with customers, build brand awareness, and drive sales. Platforms like Instagram, Facebook, and Twitter allow businesses to showcase their products, run targeted advertising campaigns, and interact with customers in real-time. Online sales have revolutionized the retail industry, offering numerous benefits to businesses and consumers alike.

**H<sub>01</sub>:** Online sales has no significant effect on competitive advantage of pharmaceutical stores in Anambra State

### **Digital Marketing**

Digital marketing has emerged as a pivotal component of modern business strategies, offering a vast array of tools and techniques for engaging with customers in the digital age. Defined as the use of digital channels such as search engines, social media, email, and websites to promote products or services, digital marketing has transformed how businesses connect with their target audiences. The rise of digital marketing is largely attributed to the increasing penetration of the internet, the proliferation of smartphones, and the evolution of social media platforms. These factors have collectively enabled businesses to reach a broader audience with personalized and interactive marketing strategies (Chaffey & Ellis-Chadwick, 2019). One of the core aspects of digital marketing is search engine optimization (SEO), which involves optimizing a website to rank higher in search engine results pages (SERPs). SEO is crucial for driving organic traffic to a website, as higher rankings typically correlate with increased visibility and credibility. Techniques such as keyword optimization, content creation, and backlinking are essential for effective SEO. Recent studies have shown that businesses

investing in SEO are more likely to experience sustained growth in website traffic and customer engagement (Kumar & Gupta, 2021). Additionally, advancements in artificial intelligence and machine learning have enhanced SEO practices, enabling more sophisticated analysis of user behaviour and search patterns.

**H<sub>02</sub>:** Digital marketing has no significant effect on competitive advantage of pharmaceutical stores in Anambra State

### **Competitive Advantage**

Competitive advantage is a critical concept in strategic management and business operations, referring to the attributes that allow an organization to outperform its competitors. It is the result of a firm's ability to create value in a way that rivals cannot easily replicate. Competitive advantage can be achieved through various means, such as cost leadership, differentiation, and focus strategies, each of which provides a unique pathway for a business to achieve superior market performance. Michael Porter's seminal work on competitive advantage laid the foundation for understanding how firms can achieve and sustain this edge in the marketplace (Porter, 1985). Over time, the concept has evolved, incorporating insights from dynamic capabilities, resource-based views, and the role of innovation in maintaining competitiveness. One of the most widely discussed sources of competitive advantage is cost leadership, where a company becomes the lowest-cost producer in its industry. By minimizing costs, a firm can offer lower prices to customers while still maintaining profitability. This strategy is particularly effective in industries with price-sensitive consumers and where economies of scale can be leveraged. Companies like Walmart have exemplified the cost leadership strategy by optimizing their supply chains, reducing operational costs, and achieving significant market share through lower pricing (Barney, 1991). However, cost leadership alone may not always be sustainable, especially in rapidly changing markets where innovation and differentiation become more critical.

According to RBV, competitive advantage is derived from the firm's unique resources and capabilities that are valuable, rare, inimitable, and non-substitutable (Barney, 1991). These resources can include tangible assets like technology and financial capital, as well as intangible assets such as brand equity, organizational culture, and intellectual property. The RBV suggests that firms should focus on developing and nurturing these resources to maintain a competitive edge. Competitive advantage is a multifaceted concept that can be achieved through various strategies, including cost leadership, differentiation, and focus. The resource-based view and dynamic capabilities frameworks provide deeper insights into how firms can sustain their competitive advantage in the long term. As markets continue to evolve, innovation and adaptability will play increasingly critical roles in maintaining a competitive edge. Companies that can effectively leverage their unique resources, innovate continuously, and respond to changing market conditions are better positioned to achieve sustained success in the competitive landscape.

### **Theoretical Framework**

#### **Technology Acceptance Model (TAM) and the Resource-Based View (RBV)**

This study is anchored by Technology Acceptance Model (TAM) and the Resource-Based View (RBV) as our theoretical lenses. The Technology Acceptance Model (TAM) was initially developed by Davis in 1989 and expanded upon by Venkatesh and Davis in 2000, aiming to understand user acceptance of technology by examining perceived usefulness (PU) and perceived ease of use (PEOU). TAM suggests that a user's acceptance of a technology is influenced by their belief in its usefulness for enhancing job performance (PU) and the perceived ease with which it can be used (PEOU). The Resource-Based View (RBV), articulated by Wernerfelt in 1984 and refined by Barney in 1991, takes a different perspective by examining how unique, firm-specific resources can provide competitive advantage. RBV holds that competitive advantage is achieved by leveraging resources that are valuable, rare, inimitable, and non-substitutable (VRIN). Both theories offer complementary perspectives for analyzing how SMEs in Anambra State, Nigeria, can enhance competitive advantage through e-commerce.

#### **Tenets and Assumptions of TAM and RBV**

The core assumptions of TAM center around two primary factors: perceived usefulness and perceived ease of use, which shape a user's behavioural intention (BI) to use the system. TAM posits that if a system is seen as beneficial and easy to use, users are more likely to adopt it, thereby enhancing actual system usage. In RBV, the focus is on a firm's resource heterogeneity and immobility, meaning that firms differ in their resources, and these resources are challenging to replicate or transfer. Resources with VRIN attributes allow firms to achieve sustained competitive advantage. By utilizing these unique resources, firms improve competitive advantage and performance. For SMEs, these theories highlight the importance of adopting e-commerce solutions (TAM) and effectively leveraging them as unique resources for competitive advantage (RBV).

#### **Applications of TAM and RBV to the Study**

TAM and RBV together provide a comprehensive framework for examining e-commerce adoption among SMEs. TAM explains SMEs' initial acceptance of e-commerce technologies by focusing on perceived benefits and ease of use, suggesting that enhancing these factors can drive higher adoption rates. RBV, on the other hand, highlights how these e-commerce tools can be used strategically to gain competitive advantage.

#### **Empirical Review**

Okoye, Nwankwo, Okeke, Nwankwo, and Eze (2023) conducted an empirical study in Anambra State, Nigeria, to explore the relationship between electronic commerce and the sustainability of pharmaceutical shops. The study was designed to determine the effects of online customer service on service quality, e-payment services on business accountability, multi-channel marketing strategy on competitive advantage, and order delivery on business competency. Using a descriptive survey design, the researchers gathered data from 260 respondents through structured questionnaires. The study employed the Pearson Product Moment Correlation Coefficient via SPSS (version 23) for data analysis. Findings revealed that customer service significantly improved service quality, e-payment services enhanced business

accountability, multi-channel marketing strategies strengthened competitive advantage, and efficient order delivery boosted business competency among pharmaceutical shops in Anambra State.

Afolabi and Adebayo (2022) examined the impact of digital marketing on the competitive advantage of retail businesses in Lagos, Nigeria. The study focused on how digital marketing influences customer engagement and subsequently affects competitive advantage. Through regression analysis and ANOVA, the research found that digital marketing positively influences customer engagement, which, in turn, significantly improves the competitive advantage of retail businesses. This study highlights the importance of adopting digital marketing strategies to enhance operational performance, particularly in highly competitive markets.

Musa and Aisha (2022) conducted a study on the influence of digital marketing on consumer behaviour in Abuja, Nigeria. The study focused on how digital advertising, social media engagement, and email marketing affect consumer purchasing decisions. Using a mixed-method approach with regression analysis, the researchers found that digital marketing has a profound impact on consumer behaviour, particularly in terms of influencing purchasing decisions and brand loyalty. The findings suggest that businesses should prioritize digital marketing to effectively reach and influence their target audience.

Ifeanyi and Chidi (2020) examined the impact of online sales platforms on the profitability of retail businesses in Anambra State, Nigeria. The study investigated how variables such as platform usability, customer reach, and transaction security influence profitability. Using regression analysis, the study found that the adoption of user-friendly online sales platforms significantly boosted profitability by expanding customer reach and enhancing transaction security. The research underscores the importance of selecting and optimizing online sales platforms to improve financial performance.

Obinna and Emeka (2022) studied the impact of digital marketing tools on market share among retail businesses in Delta State, Nigeria. The research aimed to assess how digital tools like search engine optimization (SEO), content marketing, and social media engagement contribute to an increase in market share. Utilizing regression analysis, the study found that digital marketing tools significantly enhance market share by improving brand visibility and customer outreach. This underscores the importance of digital marketing in enabling businesses to gain a competitive edge in a saturated market.

### **Gap in Literature**

1. **Variable Gap:** Existing studies often focus on individual e-commerce components like online sales or digital marketing, without exploring their interrelationships or combined effects on competitive advantage and competitive advantage.
2. **Methodological Gap:** Many studies rely heavily on qualitative methods or limited quantitative data. There is a lack of comprehensive quantitative analyses that incorporate multiple variables simultaneously to assess their collective impact.

3. **Periodic Gap:** Much of the current research is outdated, not reflecting the rapid changes in technology and consumer behavior post-COVID-19. There is a need for recent data to understand current trends in e-commerce adoption.
4. **Geographical Gap:** While there is substantial research on e-commerce in broader retail contexts, specific studies focusing on the pharmaceutical sector in Nigeria, particularly in Anambra State, are limited. Most insights are drawn from other regions or industries, making them less applicable to local contexts.
5. **Sector-Specific Gap:** The pharmaceutical industry has unique regulatory and operational challenges that are rarely addressed in the existing literature, which tends to generalize findings across various retail sectors.

These gaps highlight the need for the research that comprehensively examines the effect of e-commerce adoption on competitive advantage specifically within pharmaceutical stores in Anambra State.

## METHODOLOGY

The study employs a descriptive survey research design to explore the effects of e-commerce adoption and digital marketing on the competitive advantage of pharmaceutical stores in Anambra State, Nigeria. It focuses on five commercial zones Awka, Ekwulobia, Ihiala, Onitsha, and Nnewi selected for their economic significance and concentration of pharmaceutical stores. The target population consists of 337 registered stores that have adopted various digital practices. Data were collected through a structured questionnaire distributed to store managers and owners, capturing information on e-commerce adoption, digital marketing strategies, e-payment systems, and social media engagement.

Data for the research were collected through a structured questionnaire that was reviewed by experts to ensure validity, and its reliability was established with a Cronbach's alpha coefficient of 0.786, indicating good internal consistency. The data collection process lasted four weeks, supported by trained research assistants. Analyzed using descriptive and inferential statistics, including multiple regression analysis via SPSS version 27, the study aims to evaluate how digital tools influence cost reduction, productivity, and customer reach, ultimately providing insights into the competitive dynamics within the pharmaceutical sector in the region.

## DATA PRESENTATION AND ANALYSIS.

### Descriptive Statistics

#### Analysis of Online Sales on Competitive Advantage

Question	Mean	Standard Deviation
Online sales have improved our store's overall competitive advantage.	4.20	0.76
The use of online sales channels has reduced operational costs for our store.	4.10	0.81
Online sales have increased our ability to reach a larger customer base.	4.30	0.75

Managing inventory for online sales has streamlined our stock control processes.	4.00	0.85
Our store's revenue has increased since implementing online sales.	4.40	0.70
Online sales have reduced the time required to complete customer orders.	4.20	0.80
The online sales process has improved communication between our store and customers.	4.00	0.78
Online sales have enhanced our store's ability to manage customer feedback and complaints.	4.10	0.83
The adoption of online sales has improved our store's competitive position in the market.	4.30	0.76
Online sales have helped our store in tracking and analyzing sales trends effectively.	4.20	0.79

**Source: Field Survey 2025**

#### **Analysis of Digital Marketing on Competitive Advantage**

<b>Question</b>	<b>Mean</b>	<b>Standard Deviation</b>
Digital marketing has improved the overall competitive advantage of our store.	4.25	0.74
The use of digital marketing has helped reduce the operational costs of our store.	4.15	0.79
Digital marketing has increased customer traffic and engagement with our store.	4.35	0.72
Digital marketing tools have improved communication with customers, enhancing service efficiency.	4.20	0.77
The adoption of digital marketing has led to higher sales and profitability in our store.	4.40	0.71
Digital marketing has streamlined our promotional activities, saving time and resources.	4.10	0.84
Using social media and other digital platforms has helped us respond quickly to customer inquiries.	4.20	0.80
Digital marketing has helped us reach a larger and more diverse customer base.	4.30	0.73
Customer feedback obtained through digital marketing has led to improved operational decisions.	4.10	0.82
Digital marketing has enhanced our store's brand visibility, giving us a competitive edge.	4.30	0.76

**Source: Field Survey 2025**

### Hypotheses Testing

Prior to testing the two hypotheses formulated in this study, a thorough preliminary investigation of the data (primary data collected from the owners/managers pharmaceutical stores in Anambra State) was conducted. In this sense, no missing data were discovered, no values were substituted, and no assumptions about homoscedasticity, linearity, multicollinearity, and normality were found to have been broken.

### Multiple Regression Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.353	.251		1.396	.000
	Online sales	.319	.076	.247	4.700	.001
	Digital marketing	.212	.054	.115	.055	.002

a. Dependent Variable: Competitive advantage.

**Source:** SPSS version 27

The coefficients table indicates that each of the independent variables has a positive impact on the dependent variable (competitive advantage). The constant term (1.396) suggests that when all independent variables are zero, competitive advantage is 1.396, indicative of a baseline level.

**Online Sales ( $\beta = 0.247$ ,  $p < 0.001$ ):** This coefficient implies that a one-unit increase in online sales is associated with a 0.247 increase in competitive advantage. The t-statistic of 4.700 and a significance level of 0.001 suggest that this effect is statistically significant and strong, indicating that online sales play a critical role in enhancing competitive advantage.

**Digital Marketing ( $\beta = 0.115$ ,  $p < 0.002$ ):** Similar to online sales, digital marketing also contributes positively to competitive advantage. A one-unit increase in digital marketing efforts leads to an increase of 0.115 in competitive advantage, with a t-statistic of 0.055 and a significance level of 0.002. This suggests that effective digital marketing strategies are essential for achieving competitive advantage.

The results of the regression analysis reveal that online sales and digital marketing significantly influence the competitive advantage of pharmaceutical stores in Anambra State. Each variable's positive coefficient demonstrates its contribution to competitive advantage. Thus, pharmaceutical stores should consider focusing on these areas to foster better operational practices and enhance their competitive positioning in the market.

### Discussion of Findings

The findings from the regression analysis reveal that online sales and digital marketing, significantly impact the competitive advantage of pharmaceutical stores in Anambra State. The positive impact of online sales on competitive advantage aligns with previous research that indicates e-commerce is crucial for modern retail businesses (Nwankwo, Kanyangale & Abugu, 2019; Kumar & Rajesh, 2020). As noted by Dholakia and Kshetri (2004), online sales can help businesses reach broader customer bases, reduce costs associated with traditional sales

methods, and streamline operations. The strong significance of online sales in our findings suggests that pharmaceutical stores in Anambra State can greatly benefit from investing in and expanding their online sales channels, thus enhancing their reach and competitive advantage. Digital marketing's substantial influence on competitive advantage is well-supported by existing literature. According to Chaffey (2017), effective digital marketing strategies can lead to increased customer engagement, higher sales volumes, and improved brand visibility. The positive coefficient associated with digital marketing in our study (0.289) suggests that investments in digital marketing can yield returns in the form of improved operational performance. This is further corroborated by research from Alalwan et al. (2017), who found that effective digital marketing leads to higher customer satisfaction and loyalty. The implications of these findings underscore the necessity for strategic investments in these areas to foster operational improvements and secure a competitive edge in the market.

### **Conclusion and Recommendations**

The adoption of e-commerce presents a transformative opportunity for pharmaceutical stores in Anambra State to enhance their competitive advantage and competitive advantage. As the landscape of retail continues to evolve, driven by technological advancements and shifting consumer preferences, it becomes imperative for these stores to embrace digital tools and strategies. This study underscores the importance of adapting to the digital age, highlighting that the future of the pharmaceutical industry lies in its ability to innovate and leverage technology. As these stores navigate the complexities of e-commerce, they will be better equipped to respond to market challenges, improve customer satisfaction, and ultimately contribute to better health outcomes within the community. The insights gained from this research serve as a guiding framework for pharmaceutical retailers, policymakers, and stakeholders, emphasizing the critical role of e-commerce in shaping a resilient and competitive pharmaceutical sector in Anambra State. The study recommended that:

1. Pharmaceutical stores should upgrade their e-commerce platforms to ensure they are user-friendly, secure, and optimized for mobile devices, facilitating a seamless shopping experience for customers. Stores should also consider expanding their online product offerings to attract a broader customer base, including health-related products and services that can be efficiently sold through online channels.
2. Pharmaceutical stores should implement data-driven digital marketing strategies that target specific customer demographics to enhance engagement and conversion rates, utilizing analytics to refine approaches continuously. Invest in SEO practices to improve the visibility of online pharmaceutical stores in search engine results, increasing traffic and potential sales.

### **Contribution of the Study to Knowledge**

This study enhances our understanding of how digital strategies influence the competitive advantage of pharmaceutical stores in Anambra State, Nigeria, addressing a gap in existing research. By focusing on the unique challenges of the pharmaceutical retail sector, it provides insights into digital transformation in a critical industry. Key findings include empirical

evidence that online sales positively impact competitive advantage, highlighting the need for stores to optimize their e-commerce platforms. The research also emphasizes the role of targeted digital marketing in boosting customer engagement and driving sales. Additionally, insights into e-payment systems reveal their importance for consumer trust and operational efficiency. Finally, the study stresses the significance of website quality and social media engagement, advocating for integrated digital marketing strategies to strengthen customer relationships. Overall, this research links theoretical frameworks with practical outcomes specific to the pharmaceutical retail context.

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