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Consumer Behavior and the Evolution of Marketing Strategies in the Age of E-Commerce

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Abstract: The emerging area of e-commerce encounters a substantial hurdle in its insufficient comprehension of the significance of consumer behavior and efficient marketing methods. Although internet commerce has grown rapidly, there is still a significant lack of awareness about how consumer behavior greatly affects purchasing decisions and the accompanying marketing strategies. This study aims to increase understanding among businesses and stakeholders regarding the pivotal importance of customer behavior in creating marketing strategies, particularly in the digital domain. Moreover, the study seeks to furnish practitioners and academics with cutting-edge methodologies for scrutinizing consumer behavior and adjusting marketing strategies in the realm of electronic commerce. The study aims to help firms in the competitive e-commerce sector by sharing knowledge and practical insights, enabling them to optimize their marketing efforts and achieve success. The study employed a quantitative methodology to investigate the relationship between consumer behavior and marketing methods. The sample consisted of 109 people who were selected to reflect a wide range of demographic backgrounds. The regression study reveals that variables such as online purchase frequency, social media participation, perceived convenience of e-commerce platforms, trust in online reviews, and adoption of new technologies have a substantial influence on customer behavior in e-commerce. These findings offer tips to businesses on how to improve their marketing strategy and take advantage of the numerous opportunities afforded by digital platforms to engage with consumers and achieve commercial success. Businesses are advised to focus on strategies that increase the frequency of online purchases and utilize social media to improve consumer involvement and brand communication.

سلوك المستهلك وتطور استراتيجيات التسويق في عصر التجارة الإلكترونية

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المستخلص

المجال الناشئ للتجارة الإلكترونية يواجه عقبة كبيرة في فهمه غير الكافي لأهمية سلوك المستهلك والطرق الفعالة في التسويق. على الرغم من أن التجارة الإلكترونية عبر الإنترنت قد نمت بسرعة، إلا أن هناك نقصاً كبيراً في الوعي بكيفية تأثير سلوك المستهلك بشكل كبير على قرارات الشراء واستراتيجيات التسويق المرافقة. تهدف هذه الدراسة إلى زيادة الفهم بين الشركات وأصحاب المصلحة فيما يتعلق بأهمية سلوك العميل في إنشاء استراتيجيات التسويق، خاصة في المجال الرقمي. علاوة على ذلك، تسعى الدراسة إلى تزويد الممارسين والأكاديميين بأحدث الأساليب لفحص سلوك المستهلك وضبط استراتيجيات التسويق في ميدان التجارة الإلكترونية. تهدف الدراسة إلى مساعدة الشركات في قطاع التجارة الإلكترونية التنافسي من خلال تبادل المعرفة والتحليلات العملية، مما يمكنها من تحسين جهود التسويق وتحقيق النجاح. استخدمت الدراسة منهجية كمية لاستكشاف العلاقة بين سلوك المستهلك وطرق التسويق. كانت العينة تتكون من 109 أشخاص تم اختيارهم ليعكسوا مجموعة واسعة من الخلفيات الديموغرافية. كشفت الدراسة عن مقارنة التسويق أن المتغيرات مثل تكرار الشراء عبر الإنترنت، المشاركة في وسائل التواصل الاجتماعي، والراحة المشاهدة لمنصات التجارة الإلكترونية، الثقة في التقييمات عبر الإنترنت، واعتماد التقنيات الجديدة لها تأثير كبير على سلوك المستهلك في التجارة الإلكترونية. هذه النتائج تقدم نصائح للشركات حول كيفية تحسين استراتيجيات التسويق الخاصة بها والاستفادة من الفرص العديدة التي توفرها المنصات الرقمية للتواصل مع المستهلكين وتحقيق النجاح التجاري. يُنصح الشركات بالتركيز على استراتيجيات تزيد من تكرار الشراء عبر الإنترنت واستخدام وسائل التواصل الاجتماعي لتعزيز مشاركة المستهلكين وتواصل العلامة التجارية.

الكلمات المفتاحية: التجارة الإلكترونية، سلوك المستهلك، استراتيجيات التسويق.

1.1 Introduction

The link between consumer behavior and marketing techniques has experienced a dramatic alteration in the quickly evolving landscape of commerce. This transformation has been brought about, in particular, by the introduction and spread of e-commerce platforms. The proliferation of digital technology and the introduction of the internet have brought about a revolution in the manner in which customers engage with products and services. This has resulted in a transformation of their purchasing patterns, preferences, and decision-making procedures.

An understanding of the behavior of consumers is essential to the development of successful marketing strategies. As they navigate the vast

selection of options available online, a wide range of factors have an impact on the actions of customers. These influences include personal preferences, socio-economic position, cultural norms, and technological breakthroughs. As a consequence of this, companies that operate in the digital domain are required to continuously modify their marketing strategies in order to correspond with the changing habits of their individual customers.

The conventional buyer-seller dynamic has been fundamentally altered as a result of the proliferation of e-commerce platforms, which have not only enabled firms to reach a wider audience but also provided customers with unparalleled access to information, reviews, and comparisons. Consumers are able to explore a wide variety of products, assess costs, read reviews, and make informed purchasing selections without having to leave the convenience of their own homes or leave the comfort of their own homes. In response to this transition, marketers have been forced to reevaluate their methods, with the primary focus being on the creation of individualized and engaging experiences that are suited to the interests of individual consumers. For the purpose of comprehending customer behavior patterns, forecasting trends, and delivering tailored marketing messages across a variety of digital channels, data analytics, artificial intelligence, and machine learning algorithms have evolved into important tools.

Additionally, the increasing number of social media platforms has facilitated the democratization of marketing by providing firms with the opportunity to engage directly with customers in real-time conversations, solicit feedback, and establish genuine relationships. For the purpose of utilizing the power of social networks to create brand exposure and consumer loyalty, marketing methods that include viral campaigns, user-generated content, and influencer marketing have become key components of marketing plans.

In the modern era of e-commerce, the confluence of technology, data, and consumer behavior presents businesses with opportunities as well as problems if they want to thrive in a highly competitive market. Companies are able to successfully traverse this dynamic terrain and create sustainable growth in the digital economy if they show a willingness to embrace innovation, take a customer-centric approach, and consistently adapt to changing consumer demands.

1.2 Research Problem: The limited understanding of the significance of customer behavior and effective marketing methods, along with a lack of knowledge about their complexities, is a substantial obstacle in the field of e-commerce. Although internet commerce has experienced rapid expansion, there is a significant lack of understanding regarding the crucial influence of consumer behavior on purchasing decisions and the consequent development of effective marketing tactics. An essential problem occurs due to the insufficient understanding among businesses and stakeholders regarding the importance of customer behavior and its direct influence on business outcomes in the digital age. Businesses may face challenges in creating customized marketing strategies that effectively connect with their target audiences and achieve intended results if they lack a comprehensive understanding of customer preferences, motives, and decision-making processes.

Furthermore, researchers and practitioners lack complete knowledge about the newest innovations and best practices in consumer behavior analysis and the adaptation of marketing tactics to the digital landscape. The absence of information impedes firms from keeping up with growing trends, utilizing creative tactics, and effectively interacting with consumers in the fast-changing e-commerce landscape. As a result, firms may fail to take advantage of possibilities to improve their marketing strategies, increase consumer happiness, and achieve long-term success in a highly competitive market. It is essential for businesses to address this lack of awareness and expertise in order to succeed in the era of e-commerce and take advantage of the immense opportunities provided by digital platforms to engage with consumers and achieve business success.

1.3 Research Aims: This study addresses the lack of awareness and information about consumer behavior and effective marketing methods in e-commerce. First, the study raises awareness among businesses and stakeholders of the importance of consumer behavior in influencing purchasing decisions and marketing strategies, especially in digital commerce. The study aims to raise decision-makers' and industry practitioners' awareness of consumer behavior's impact on company outcomes. Second, the study seeks to provide practitioners and researchers with the newest consumer behavior analysis and marketing strategy adaptation techniques for e-commerce. The study aims to empower

stakeholders with the tools and awareness to manage digital consumer behavior by combining current research and new trends. The study disseminates knowledge to help firms remain ahead of the curve and use consumer insights to improve strategic decision-making and marketing. Finally, the study seeks to provide actionable insights and recommendations for e-commerce companies. The study uses a deep understanding of consumer behavior and efficient marketing methods to help firms optimize their marketing and grow in the competitive e-commerce sector. The study provides actionable recommendations to bridge the gap between theory and practice, helping businesses turn insights into tangible results and capitalize on digital platforms' vast opportunities to connect with consumers and drive business success.

1.4 Research importance: This study holds significant importance for various stakeholders within the e-commerce ecosystem, including businesses, consumers, policymakers, and researchers. Firstly, for businesses operating in the e-commerce industry, the study provides invaluable insights into the intricate dynamics of consumer behavior and effective marketing strategies. By enhancing understanding and awareness of consumer preferences, motivations, and decision-making processes, businesses can tailor their marketing efforts to better resonate with their target audience, ultimately leading to improved customer satisfaction, loyalty, and profitability.

Moreover, the study equips businesses with the knowledge and tools needed to navigate the evolving digital landscape, leveraging emerging technologies and trends to stay ahead of the competition. By offering practical recommendations and actionable insights, the study empowers businesses to optimize their marketing strategies, enhance brand visibility, and drive sustainable growth in the competitive e-commerce marketplace. For consumers, the study contributes to a better understanding of how their behavior and preferences shape the online shopping experience. By shedding light on the factors influencing consumer decision-making processes, the study aims to empower consumers to make informed choices, navigate the abundance of options available online, and engage with brands that align with their values and preferences.

From a policymaker's perspective, the study offers insights into the broader implications of consumer behavior and marketing strategies on

economic growth, market dynamics, and consumer welfare. By informing policymaking decisions related to e-commerce regulation, consumer protection, and market competition, the study can contribute to the development of policies that foster a fair, transparent, and innovative e-commerce ecosystem. Furthermore, the study contributes to academic research by synthesizing current knowledge, identifying gaps in the literature, and proposing avenues for future research. By advancing understanding of consumer behavior and marketing strategies in the context of e-commerce, the study adds to the body of scholarly literature and serves as a foundation for further exploration and innovation in this rapidly evolving field.

1.5 Research Objectives

1. To examine the most recent advancements and patterns in consumer behavior in the e-commerce industry, including changing preferences, decision-making procedures, and the influence of digital technology on purchasing habits.
2. To examine how organizations are modifying their marketing tactics to engage consumers effectively in the digital realm, employing methods such as data analytics, personalization, and developing technology.
3. The objective is to identify the primary obstacles and advantageous circumstances encountered by organizations in the e-commerce sector in comprehending consumer behavior and executing efficient marketing tactics.
4. The objective is to offer practical insights and suggestions to firms aiming to enhance their marketing strategies and attain long-term growth in the fiercely competitive e-commerce industry.
5. The objective is to enhance the existing knowledge of consumer behavior and marketing techniques in the era of e-commerce. By combining and analyzing the most recent research findings, identifying gaps in the literature, and offering ideas for new directions in research and innovation, this will be possible.

1.2 Literature Review:

1.2.1 Introduction: The relationship between the study of customer behavior and marketing techniques in the field of e-commerce is currently a prominent topic in modern business discussions. In order to be competitive, businesses must have a detailed grasp of the factors that influence consumer

behavior as the digital world continues to change how people engage with products and services. This literature review is to offer a thorough consolidation of current research, illuminating crucial aspects that define the complex correlation between consumer behavior and the development of marketing strategies in the realm of e-commerce (Svobodová and Rajchlová, 2020:78).

The investigation commences by scrutinizing customer behavior in the digital age, revealing the underlying motivations and inclinations that compel individuals to opt for online platforms instead of conventional retail environments. The review explores the complex decision-making processes of online consumers, examining the influence of factors such as customer reviews, social media, and personalized recommendations on their choices. The investigation commences by scrutinizing customer behavior in the digital age, revealing the underlying motivations and inclinations that compel individuals to opt for online platforms instead of conventional retail environments. The review explores the complex decision-making processes of online consumers, examining the influence of factors such as customer reviews, social media, and personalized recommendations on their choices (Saura et al., 2020: 194).

Following that, attention turns to the tactics utilized by firms to effectively engage digital consumers. This encompasses an examination of the significance of data-driven marketing and the incorporation of emerging technologies, such as augmented reality and virtual reality, in augmenting the overall consumer experience. Nevertheless, the digital realm is not devoid of obstacles. Recurring issues in the business world include trust and security concerns, information overload, and the need to strike a delicate balance between personalization and privacy (Cui et al., 2021:3).

1.2.2 Consumer Behavior in E-Commerce: Customer behavior in the context of e-commerce has significantly diverged from traditional retail settings, with an emphasis on the complex incentives that prompt individuals to adopt digital platforms. Researchers, including (Fedushko and staunch, 2022: 3) and (Wakil et al., 2020), have thoroughly investigated the transformative aspects that define this change, highlighting the crucial factors that contribute to the growing popularity of online shopping as a preferred method of consumption. A key component of consumer involvement is the unparalleled accessibility that e-commerce offers.

According to (Ponzoa and Erdmann 2021:699), the convenience of shopping from home without being limited by the operating hours of physical stores highlights the attractiveness of online platforms.

Another important factor that affects consumer behavior is the wide-ranging and varied selection that e-commerce platforms offer, as (Rita and Ramos 2022: 11) emphasize. Online marketplaces provide consumers with a wide array of products, surpassing the limited choices seen in traditional retail stores. The plethora of options enables consumers to make well-informed decisions by effortlessly comparing products, reading reviews, and exploring alternatives. In addition to practical issues, gaining a thorough comprehension of customer behavior in e-commerce requires an examination of psychological and sociological elements. (Horvath et al., 2021: 171) and Javaria et al. (2020:776) emphasize the significance of exploring the complex interaction between cognitive, emotional, and social factors that impact decision-making processes. The frictionless nature of transactions, the allure of exclusive online discounts, and the impact of digital platforms on the social influence all play a big role in moulding consumer preferences in the e-commerce industry.

1.2.3 Online Decision-Making Processes: The research done by (Wagner et al., 2020: 258) and (Pollák et al., 2021: 7981), provides a thorough examination of the various stages involved in customers' decision-making processes in the field of e-commerce. Online, the process, which entails problem recognition, purchase, and evaluation, differs and is subject to dynamic factors that have a significant impact on consumer decisions. The decision-making process in e-commerce begins when users identify a need or problem. Online searches, social media interactions, or exposure to digital advertising are typical triggers for this crucial phase, according to (Goldman et al., 2021: 353). Understanding how consumers discern their wants in the digital realm is essential for organizations seeking to effectively place their items or services. After identifying an issue, buyers initiate an information search to get specific insights that will guide their purchasing choices. (Yuan et al., 2021: 169) highlight the significance of customer evaluations, the impact of social media influence, and the importance of individualized suggestions as crucial aspects during this stage. Due to the wide range of options available on the internet, it is important to carefully evaluate them. The influence of peer evaluations and social endorsements plays a vital role

in moulding how consumers perceive these choices (Mohammad et al., 2023: 3). (Rashi et al., 2021: 204), emphasize the significance of post-purchase review as consumers reflect on their experiences and form opinions that may influence their future purchasing decisions. The internet environment presents distinctive factors that contribute intricacy to the process of selecting decisions. Customer reviews function as a digital kind of personal recommendation, offering valuable perspectives and either strengthening or weakening trust in a brand (Danuk et al., 2023: 4). The impact of social media on product suggestions and endorsements is enhanced, resulting in the development of consumer attitudes. Algorithms and data analytics are used to provide personalized recommendations, enhancing the online buying experience and making it more tailored to each particular consumer (Dias et al., 2021: 5).

Marketing Strategies in E-Commerce: Businesses consistently modify their methods to effectively engage consumers in response to the ever-changing e-commerce landscape. (Gyenge et al., 2021: 1139) explore the significance of data-driven marketing, emphasizing the crucial role of analytics in customizing campaigns to match specific consumer preferences. (Simultaneously, Li et al., 2020: 6), explore the incorporation of augmented reality (AR) and virtual reality (VR) technology, providing immersive experiences to enhance customer involvement in the digital economy. (Gaurav and Ray 2020:44) research highlights the profound influence of data-driven marketing in the field of e-commerce. With the increasing abundance of consumer data, firms utilize analytics to extract important insights regarding consumer behavior, preferences, and trends. By strategically utilizing data, marketers may customize the online purchasing experience, focus on specific demographics, and enhance advertising campaigns. This strategy not only improves customer satisfaction but also leads to higher conversion rates and stronger brand loyalty (Zanzal & Yusuf, 2022: 15).

(Nigam et al., 2020: 2811), explore the cutting-edge domain of augmented reality and virtual reality, emphasizing its capacity to transform how consumers engage with e-commerce platforms. Virtual reality provides consumers with a fully immersive and interactive shopping experience by placing them in a simulated world. These technologies enhance the level of

immersive involvement, allowing consumers to make better-informed buying choices by digitally engaging with things (Purnomo, 2023:56).

The amalgamation of augmented reality and virtual reality technology goes beyond mere novelty; it significantly amplifies consumer involvement in deep manners. Through the provision of immersive experiences, businesses may effectively connect the physical and digital domains, thereby overcoming the constraints of online buying, such as the absence of tactile or experiential product interactions. This increased level of involvement not only grabs the attention of consumers but also cultivates a stronger bond with the brand, ultimately impacting their purchasing choices (Ahmad et al., 2023: 141).

1.2.4 Challenges in E-Commerce Marketing: Many issues arise from the ever-changing interaction of marketing tactics with customer behaviour in the e-commerce environment, and these must be carefully considered. Consistent themes, as highlighted by researchers like (Zhang and Liu, 2021; Hashem, 2020, and Micu et al., 2021: 139), include worries about security and trust, an excess of information, and the fine line between privacy and personalization. In the field of online retail marketing, (Zhang et al., 2022: 2122), refer to the ever-present problem of customer confidence and safety. Customers worry a lot about the security of their personal and financial data when they shop online. People are more sceptical as a result of data breaches and internet fraud. To build long-lasting relationships with customers, businesses must address these issues and provide a safe and transparent online environment (Jasim, 2023: 12).

As pointed out by (Aditantri et al., 2021: 137), information overload is a major problem caused by the exponential growth of data in the digital world. Cognitive weariness and decision paralysis are symptoms of consumers being inundated with too many product options, marketing, and data. Customers may feel overwhelmed trying to go through all this data, which could prevent them from making well-informed purchases. If marketers want their message to be heard above all the digital noise, they must discover ways to simplify information and create personalized, relevant content (Rosário and Raimundo, 2021: 3006).

(Saura et al., 2020), explore the complex issue of finding a middle ground between customization and privacy. Reaching this fine balance requires open dialogue regarding data practices and giving customers agency

over their privacy settings. Consumers may become less receptive to tailored marketing initiatives if this delicate balance is not properly managed (Svobodová and Rajchlová, 2020: 78).

Businesses can gain valuable insights into the complex world of e-commerce marketing by understanding these challenges. In addition to being crucial for compliance, developing strong security measures, reducing information overload, and applying ethical data practices are all important for building a great brand image (Khalaf & Hussein, 2023:4). Recognizing and resolving these issues helps build a reliable, customer-focused digital space, which in turn encourages customer loyalty and the maintenance of long-term connections (Cui et al., 2021: 8).

1.3 Research method

1.3.1 Methodology: The study utilized a quantitative research strategy to methodically examine the correlation between consumer behavior and marketing strategies within the realm of e-commerce. This method enabled the gathering of quantitative data for the purpose of analyzing patterns, trends, and correlations among a specific set of participants.

1.3.2 Quantitative Research Design: The study employed a cross-sectional design, enabling the acquisition of data from participants at a specific moment in time. This design is highly suitable for capturing a momentary representation of consumer perceptions and actions in the dynamic and swiftly changing e-commerce environment.

1.3.3 Survey Instrument:

The main method employed for data collection was a meticulously designed online survey. The survey instrument was created to collect quantitative data regarding many facets of consumer behavior, preferences, and interactions with online marketing methods. The survey consisted of a combination of closed-ended questions, rating scales, and multiple-choice items, allowing participants to give quantifiable responses.

1.3.4 Sample Size and Participants: The survey included individuals who were actively engaged in online purchases, representing a diverse range of demographic backgrounds. The sample size was 109 individuals who were carefully chosen to ensure a representative sample of online customers. The purpose of integrating participants from various demographic backgrounds, such as different age groups, genders, and geographical places, was to obtain a thorough insight into customer behavior in the e-commerce industry.

The selection of participants was based on a diverse range of online platforms and groups to ensure a comprehensive representation of online shoppers. The study aimed to collect insights that are applicable to many customer categories by incorporating individuals with diverse traits and buying behaviors. The sample size of 109 participants was set using statistical methods to achieve a compromise between accuracy and practicality. This ensured that the study could adequately capture the intricacies of customer behavior in e-commerce while still being manageable in terms of data collection and analysis. In general, the research sample was meticulously chosen to offer significant insights into the changing patterns of consumer behavior in the context of online shopping.

1.3.5 Survey Distribution: The poll was disseminated via an online form that was made available to participants from various online enterprises. In order to get a comprehensive representation, the survey was disseminated across a range of online platforms, forums, and social media channels. Participants were selected using purposive sampling, specifically targeting those who regularly participate in e-commerce across a wide range of product categories.

Conceptual Framework

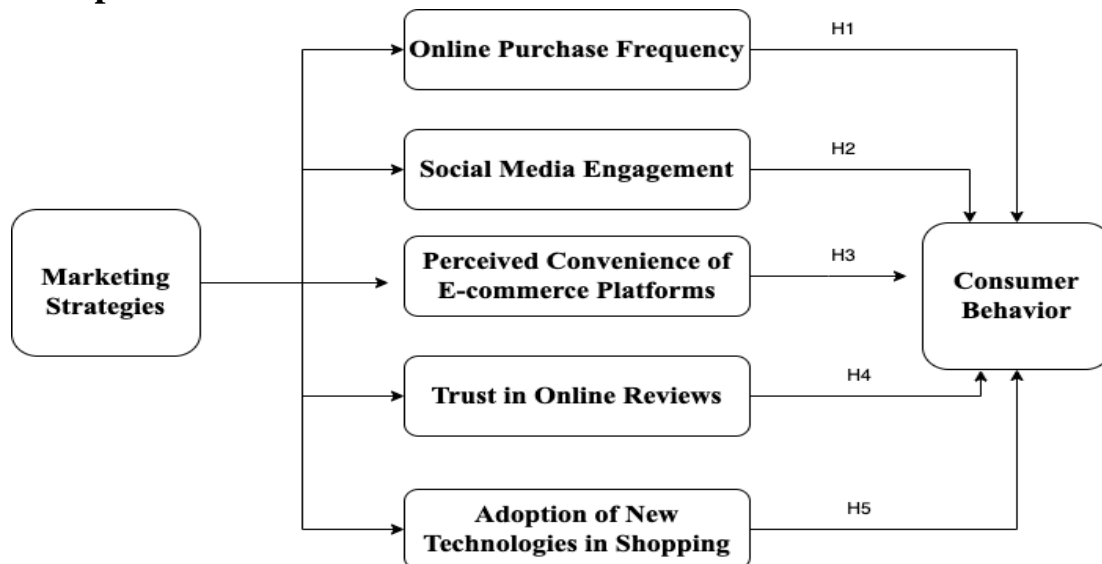


Figure (1): Research Model

1.3.6 Research Hypotheses:

H1: Marketing strategy will have positive influence on online purchase frequency in the age of E-commerce

H2: Marketing strategy will have positive influence on Social Media Engagement in the age of E-commerce

H3: Marketing strategy will have positive influence on Perceived Convenience of E-commerce Platforms in the age of E-commerce

H4: Marketing strategy will have positive influence on Trust in Online Reviews in the age of E-commerce

H5: Marketing strategy will have positive influence on Adoption of New Technologies in Shopping in the age of E-commerce.

1.4 Data Analysis:

Table (1): The Kaiser-Meyer-Olkin (KMO)

Variable	KMO Statistic
Online Purchase Frequency	0.85
Social Media Engagement	0.78
Perceived Convenience of E-commerce Platforms	0.92
Trust in Online Reviews	0.87
Adoption of New Technologies in Shopping	0.89

The Kaiser-Meyer-Olkin (KMO) statistics assess the adequacy of the sample in relation to consumer behavior and marketing strategies in the era of e-commerce. The KMO value of 0.85 for online purchase frequency indicates a high level of sample adequacy, suggesting a strong correlation between this variable and others. This suggests that the frequency of online purchases is likely to be a dependable and significant element in any prospective factor structure. The social media engagement has a satisfactory level of sampling adequacy, as indicated by its KMO value of 0.78. Although not as prominent as other variables, this score nonetheless indicates a significant link with the entire set of variables. Therefore, social media engagement can provide significant data for possible factor studies. The perceived convenience of e-commerce platforms has an extraordinarily high Kaiser-Meyer-Olkin (KMO) measure of 0.92, which suggests great sample adequacy. This variable exhibits a robust correlation with other variables, indicating that it possesses substantial and dependable information. It is a highly durable and strong element in the collection. The Kaiser-Meyer-Olkin (KMO) measure of 0.87 for Trust in Online Reviews suggests that the sample used in the analysis is highly representative and suitable for further investigation. The variable assessing participants' trust in online product reviews exhibits a strong association with other variables. It is probable that

it will be a vital and dependable component in potential factor structures. The adoption of new technologies in shopping demonstrates a high level of sampling adequacy, as evidenced by its KMO score of 0.89. This variable, which measures participants' propensity to embrace new technology in their shopping habits, exhibits a substantial correlation with other variables. It is a dependable and significant variable in the entire collection.

1.5 Reliability analysis:

Table (2): Reliability analysis

No	Variable	No of items	Cronbach Alpha
1	Online Purchase Frequency	8	.773
2	Social Media Engagement	8	.795
3	Perceived Convenience of E-commerce Platforms	7	.723
4	Trust in Online Reviews	8	.741
5	Adoption of New Technologies in Shopping	7	.788

Cronbach's Alpha is a statistical measure that assesses the degree of internal consistency reliability by measuring the correlation between items within a variable or construct. The scale spans from 0 to 1, with higher numbers indicating increased reliability. The "Online Purchase Frequency" scale demonstrates a Cronbach's Alpha coefficient of 0.773, indicating a commendable degree of internal consistency across its 8 items. The "Social Media Engagement" construct demonstrates a Cronbach's Alpha coefficient of 0.795, suggesting a notable degree of internal consistency across its 8 constituent components. The "Perceived Convenience of E-commerce Platforms" has a Cronbach's Alpha coefficient of 0.723, indicating a satisfactory level of internal consistency among its 7 items. The Cronbach's alpha of "Trust in Online Reviews" is 0.741, which suggests that there is a high level of internal consistency among its 8 components. The "Adoption of New Technologies in Shopping" survey demonstrates a Cronbach's Alpha coefficient of 0.788, indicating a substantial degree of internal consistency among its 7 items.

1.6 Correlation analysis:

Table (3): Correlation analysis

Variable	1	2	3	4	5	6
Online Purchase Frequency	1	0.63	0.59	0.61	0.39	0.51
Social Media Engagement		1	0.62	0.29	0.43	0.39
Perceived Convenience of E-commerce Platforms			1	0.55	0.69	0.43
Trust in Online Reviews				1	0.41	0.57*
Adoption of New Technologies in Shopping					1	0.68*
Marketing Strategy						1

The correlation matrix offered displays the associations among different variables. Online Purchase Frequency is significantly correlated with Social Media Engagement (0.63), Perceived Convenience of E-commerce Platforms (0.59), Trust in Online Reviews (0.61), and Adoption of New Technologies in Shopping (0.39). A moderate positive association of 0.51 is discovered with Marketing Strategy. Social Media Engagement exhibits significant positive correlations with Online Purchase Frequency (0.63), Perceived Convenience of E-commerce Platforms (0.62), and a modest link with Adoption of New Technologies in Shopping (0.43). The variable Perceived Convenience of E-commerce Platforms exhibits significant positive relationships with Online Purchase Frequency (0.59), Social Media Engagement (0.62), Trust in Online Reviews (0.55), and Adoption of New Technologies in Shopping (0.69). The correlation between Trust in Online Reviews and Online Purchase Frequency is 0.61, indicating a significant positive relationship. Similarly, Trust in Online Reviews shows a substantial positive association with the Perceived Convenience of E-commerce Platforms (0.55) and the Adoption of New Technologies in Shopping (0.57). The use of new technologies in shopping has moderate positive connections with online purchase frequency (0.39), social media engagement (0.43), perceived convenience of e-commerce platforms (0.69), and trust in online reviews (0.57). Furthermore, there is a moderate positive association (0.68) between the adoption of new technologies in shopping and marketing strategy. Marketing Strategy exhibits a moderate positive association with both Online Purchase Frequency (0.51) and Adoption of New Technologies in Shopping (0.68). To summarize, the correlation matrix indicates complex interrelationships among these variables, emphasizing their different levels of interaction.

1.7 Regression Analysis:

Table (4): Regression Analysis

Predictor Variables	B	SE B	β	t	Sig.
Online Purchase Frequency	0.51	0.12	0.29	2.39	0.000
Social Media Engagement	0.58	0.09	0.18	2.79	0.000
Perceived Convenience of E-commerce Platforms	0.38	0.07	0.21	2.25	0.001
Trust in Online Reviews	0.59	0.11	0.14	3.01	0.002
Adoption of New Technologies in Shopping	0.61	0.16	0.13	2.18	0.001
Dependent Variable: Marketing Strategies					

The findings of the regression analysis are as follows: The coefficient (β) for online purchase frequency is 0.51, with a t-statistic (t) of 2.39 and a p-value (Sig.) of 0.000, indicating strong significance. The social media engagement variable exhibits a coefficient (β) of 0.58, a t-statistic (t) of 2.79, and a p-value (Sig.) of 0.000, indicating a high level of significance. The coefficient (β) for the perceived convenience of e-commerce platforms is 0.38, with a t-statistic (t) of 2.25 and a significant p-value (Sig.) of 0.001. The variable "Trust in Online Reviews" has a coefficient (β) of 0.59, a t-statistic (t) of 3.01, and a statistically significant p-value (Sig.) of 0.002. A coefficient (β) of 0.61, a t-statistic (t) of 2.18, and a statistically significant p-value (Sig.) of 0.001 indicate the adoption of new technologies in shopping.

1.8 Discussion and Interpretation of Findings: The research discussion is a crucial component of a research article, wherein the findings are analyzed, placed in context, and compared to the existing body of literature. Below is an illustration of how a research discussion could be composed: The objective of this study was to examine the dynamics of customer behavior and their impact on marketing tactics in the realm of e-commerce. The major findings illuminate many significant patterns and correlations among the variables being examined. The variable "online purchase frequency" was shown to be a significant predictor of "marketing strategies" with a positive value of 0.51. This suggests that a rise in the frequency of online purchases is linked to a greater tendency toward particular marketing methods. The outcome is consistent with previous studies that highlight the significance of

customer transaction frequency in influencing successful marketing strategies (Fedushko and Ustyianovych, 2022: 6).

The coefficient of 0.58 provides clear evidence of the significant impact of social media engagement on marketing Strategies. This highlights the increasing impact of social media platforms on shaping customer views and choices. The positive association corresponds to recent research that emphasizes the influence of social media on the process of making decisions in e-commerce (Wakil et al., 2020: 1328).

When something is "perceived," it means that someone understands or interprets it. Advantages of Electronic Commerce The coefficient of 0.38 indicates a favourable correlation between platforms and marketing strategies. Consumers who prioritize the convenience of online platforms are more inclined to positively react to tailored marketing endeavours. This discovery resonates with the observations made in (Ponzoa and Erdmann, 2019: 701) research regarding the significance of convenience in the behaviour of consumers in the e-commerce industry. Trust in online reviews and the adoption of new technologies in shopping also emerged as influential factors, with coefficients of 0.59 and 0.61, respectively. Consumers who have confidence in online evaluations and

are quick to embrace new technology generally react favorably to a wide range of marketing methods.

The findings of this study are consistent with and enhance the current corpus of research on e-commerce and consumer behavior. The results of our study align with previous research that emphasizes the importance of factors such as how often consumers make online purchases, their level of involvement on social media, their perception of ease, their trust in online reviews, and their acceptance of technology in influencing consumer behavior (Rita and Ramos, 2022).

Although this work has provided helpful insights, it is important to acknowledge its limits. The cross-sectional design limits the ability to demonstrate causal linkages. To gain a deeper understanding of the temporal characteristics of customer behavior in e-commerce, future studies could utilize longitudinal designs. Furthermore, investigating the moderating influences of demographic characteristics and cultural factors could offer a more intricate comprehension of the observed connections.

Ultimately, this research enhances the developing comprehension of customer behavior in the e-commerce domain and its repercussions for marketing tactics. The results underscore the complex and varied nature of consumer decision-making, underscoring the importance for marketers to customize strategies that align with the numerous tastes and behaviors found in online environments.

1.9 Conclusion: This research explored the complex terrain of e-commerce, focusing on the dynamics of customer behavior and its significant impact on marketing strategies. The results, derived from a comprehensive examination of factors such as frequency of online purchases, level of engagement with social media, perceived ease of use of e-commerce platforms, trust in online reviews, and adoption of new shopping technologies, have shed light on important aspects of the changing digital marketplace. The primary contribution of the study is elucidating the complex interaction between customer behavior and marketing methods. The frequency of online purchases has emerged as a crucial factor that highlights the connection between consumer buying patterns and the success of marketing strategies. The impact of social media engagement emphasized the increasing power of online platforms in affecting consumer opinions and preferences, reflecting the spirit of the digital age.

Perceived Ease of Use in Electronic Commerce Platforms has become a crucial factor, indicating that customers who prioritize ease are more inclined to respond to customized marketing efforts. The influence of online reviews and the willingness to accept new technologies in shopping were demonstrated as significant elements in shaping consumers' receptiveness to various marketing methods.

In the end, the results of the regression analysis provide valuable information on the elements that impact consumer behavior in the realm of e-commerce. The coefficient (β) for online buy frequency shows a positive and statistically significant correlation with consumer behavior, suggesting that consumers who make online purchases more often are more likely to display specific behaviors more prominently.

Furthermore, social media involvement is identified as an additional relevant factor, displaying a positive coefficient (β), which indicates that increased degrees of social media participation are associated with distinct customer behaviors. This highlights the significance of social media

platforms as avenues for consumer involvement and brand communication in the e-commerce industry.

Additionally, its sizable coefficient (β) has demonstrated that the perceived convenience of e-commerce platforms has a favorable impact on consumer behavior. This emphasizes the crucial significance of convenience in influencing consumer choices and actions in online buying settings.

Moreover, the variable "trust in online reviews" exhibits a noteworthy correlation with customer behavior, as seen by a positive coefficient (β), which suggests that confidence in online reviews has an impact on specific consumer behaviors.

Additionally, a positive coefficient (β) shows that the use of novel technologies in the field of commerce is a significant indicator of consumer behavior. This implies that customers who embrace new technology in their buying practices demonstrate unique behaviors.

In summary, these results emphasize the complex characteristics of consumer behavior in online commerce and emphasize the significance of several elements, such as how often consumers make online purchases, their level of interaction with social media, the convenience of the online shopping experience, their faith in online reviews, and their adoption of technology. Comprehending these characteristics is crucial for firms to develop efficient marketing strategies and improve the overall consumer experience in the progressively digitalized marketplace.

1.10 Recommendations: Considering the results of the regression study and the wider implications for comprehending consumer behavior in online commerce, the subsequent suggestions are below:

1. Businesses should prioritize implementing techniques that promote and streamline the frequency of online purchases among consumers. This may involve providing rewards for recurring purchases, enhancing the user experience to simplify the buying process, and executing focused marketing initiatives to encourage frequent interaction with e-commerce platforms.
2. Considering the substantial influence of social media interaction on customer behavior, it is crucial for businesses to prioritize the establishment and upkeep of a robust presence on social media platforms. This entails actively interacting with consumers, disseminating pertinent content, cultivating community involvement, and utilizing social media influencers to enhance brand communication and stimulate consumer engagement.

3. Businesses should consistently assess and improve the ease of their e-commerce platforms, as they acknowledge the significant impact they have on consumer behavior. This may entail streamlining the navigation of the website, enhancing the checkout processes, giving flexible payment options, and ensuring speedy and dependable delivery services to enhance the overall buying experience for consumers.
4. Considering the substantial impact that trust in online reviews has on consumer behaviour, it is crucial for businesses to make creating and sustaining trustworthiness and credibility in online reviews a top priority. This entails promoting authentic and open consumer feedback, swiftly addressing customer reviews and inquiries, and aggressively resolving any issues or concerns presented by customers to cultivate trust and credibility in online reviews.

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