

The Impact of Data Media on Customer Spending Behavior and Consumer Psychology

Qi Zheng^{1,a,*}

¹*The college of liberal arts and science, University of Illinois at Urbana Champaign, Urbana, U.S.*
a. Qzheng16@illinois.edu

**corresponding author*

Abstract: In the epoch of big data and digital media, consumer behavior has experienced impressive changes. This paper explores the impact of data media on consumer behavior and psychology, particularly concerning social media and digital platforms. The transition from traditional data analytics to the diverse world of big data and digital media is analyzed in this paper as well as how this shift has changed the way companies understand consumer needs and adjust their marketing strategies. The paper also explores how big data enables companies to accurately predict consumer behavior and raises key questions about customers' and firms' privacy, data security, and the ethical use of consumer information. In addition, the paper discusses how the COVID-19 pandemic is accelerating digital transformation and changing consumer behavior. Understanding these changes is critical for businesses, marketers, and researchers to gain deeper insights into the current and future trends in consumer behavior in the digital age.

Keywords: Consumer behavior, big data, social media, covid-19, economy

1. Introduction

The rise of data media has revolutionized consumer behavior and psychology in an era where big data is pervasively influencing all aspects of life. This change is a byproduct of the Internet age. It ushers in a new era in which big data and digital media reign supreme, as it represents a fundamental change in the way which organizations understand consumer needs and adapt their marketing strategies. At the heart of this change lies the collection of massive amounts of consumer data and the dissection of that information. The transition from traditional data analytics to the multifaceted world of big data and digital media is not just a technological and technical leap but represents a shift in understanding consumer behavior. In this digital era, every action of consumers such as favorites and comments on social media platforms and online forums becomes valuable data as these behaviors vividly depict their preferences, habits, and decision-making processes. This paper aims to explore the profound impact of data media on consumer behavior and psychology. The article will delve into the evolution of data media, its impact on consumer habits, and the economic implications of these changes, and the challenges they pose. In particular, the article will explore how digital platforms, especially social media, are reshaping consumer behavior and providing greater insight into consumer psychology.

2. The Evolution of Data Media and Their Types

The evolution of data media marks an important turning point in understanding and influencing consumer behavior. The transition from traditional methods of data collection and analysis to the complex realm of big data and digital media represents a profound shift in the landscape of consumer interaction and business strategy. The move from simple data collection to complex data analysis reflects the evolution of technology and its relevance to all aspects of consumer life [1]. Initially, data collection was limited to basic demographic information and a user's purchase history, which limited the scope of consumer insights. Companies relied on direct methods such as surveys, focusing on a few groups and analyzing sales data to measure consumer preferences and behavior. This traditional approach, while effective, offers limited perspective because it lacks the depth and immediacy of shifting information required by modern businesses in changing times. The advent of the Internet and the proliferation of digital devices heralded a new era of data collection and analysis [2]. Consumers are beginning to leave digital footprints on a variety of online platforms, from social media to e-commerce sites, creating a rich repository of behavioral data. The shift to digital media has opened new horizons for understanding consumer psychology.

The rise of big data technologies has further changed the landscape. Big data refers to large amounts of structured and unstructured data generated at high speed from multiple sources. This includes not only social media interactions, but also data from Internet of Things (IoT) devices, mobile apps, and online transactions [2]. The complexity and diversity of this data require advanced analytical tools and algorithms to process and interpret it, leading to the development of sophisticated data analytics software and AI-driven tools. Over time, the types of digital media have also diversified to include social media platforms and various search engines. Each platform provides unique insights into consumer behavior [3]. For example, social media platforms such as Facebook and Instagram provide windows into consumer lifestyles and preferences, while search engine data reveals consumer interests and intentions.

The convergence of these disparate data sources allows organizations to create comprehensive consumer profiles. By leveraging advanced analytics, businesses can now predict consumer behavior to tailor personalized marketing strategies and develop products that resonate with specific market segments. Not only that but this data analysis and integration can effectively inform the overall business strategy. Moreover, with the growth of data media, consumer-generated content such as reviews and ratings are being updated. By analyzing this content at scale, companies can get an unfiltered view of consumer sentiment and product acceptance. However, the sheer volume and diversity of data pose significant analytical challenges, and researchers or businesspeople need to constantly innovate in data processing and interpretation methods. In addition, ethical considerations of consumer privacy and data security have become critical, as companies need to maintain personalized marketing while also preventing intrusion into their own data. In conclusion, the evolution of data media from simple data collection to complex digital ecosystems represents a fundamental shift in the relationship between businesses and consumers. This shift provides new opportunities for businesses to engage with consumers in more meaningful and personalized ways [4]. As technology continues to advance, the potential for deeper insights into consumer behavior is imminent, promising further innovation in the way businesses interact with the marketplace [5].

3. Evolving Consumer Behavior in the Age of Big Data Digital Media

Consumer behavior and habits have changed dramatically in the digital media space, especially in the context of big data. The era of big data digital media has catalyzed a shift from traditional consumption patterns to more dynamic and interactive consumer behavior. In recent years, the concept of sustainable consumption has sparked a lot of interest, especially in the sharing economy.

Sustainable consumption behaviors include minimizing waste to protect the environment and maintaining product life cycles. In the context of the sharing economy, these behaviors are often reciprocal actions in response to the efforts of service providers, such as peer-to-peer provisioning of accommodation platforms [5]. Further, it is social and economic factors play a crucial role in influencing these behaviors because social influences reflecting community support promote sustainable consumption behaviors, while economic factors such as price can have a different impact. As well, in essence, an increase in sustainable consumption behaviors leads to an improvement in objective sales performance, thus highlighting the economic significance of these behaviors. Social exchange theory provides a framework for understanding the reciprocal nature of consumer behavior in the digital age. In this theory, people engage in exchange relationships with the expectation of reciprocal benefits. This reciprocity can take many forms, including economic resources (products, services, knowledge) and social resources [6]. For example, on a peer-to-peer accommodation platform, consumers are influenced by both social factors such as cleanliness and comfort provided by the service provider, and economic incentives such as lower prices compared to traditional accommodation. This interplay of social and economic factors greatly influences consumer behavior, leading to sustainable consumption behavior.

In the digital media space, the reputation and responsiveness of service providers are critical in influencing consumer behavior. A good reputation, built through consistent quality service, enhances trust and encourages cooperative relationships between users. It also affects the perceived price the higher the reputation, the higher the perceived value [1]. Similarly, a service provider's fast response rate signals a commitment to quality service, which promotes trust and influences sustainable consumer behavior. On the other hand, social commerce is a way to incorporate social media features into e-commerce platforms, which also has a significant impact on consumer behavior [7]. Social commerce offers an innovative approach to consumer-to-consumer interaction and communication, enabling consumers to provide valuable and reliable information about products. In a social commerce environment, this contribution of information helps to enhance product understanding and make more informed purchasing decisions. According to DeLone and McLean's Information Systems Success Model, the use of information technology in social commerce is associated with net benefits [8]. The process of providing information about a product allows consumers to critically evaluate the product, leading to a better understanding of the product and an informed purchase.

In conclusion, the evolution of consumer behavior in the era of big data and digital media is characterized by a shift towards sustainable consumption, which is influenced by social and economic factors based on social exchange theory. The role of service providers manifested through their reputation and responsiveness, has had a significant impact on consumer behavior. In addition, the emergence of social commerce has provided new ways for consumers to benefit from shared information that enhances their purchasing decisions and overall shopping experience.

4. The Role and Challenges of Consumer Behavior in Economic Growth

COVID-19 Pandemics have greatly influenced consumer behavior, not only in terms of individual purchasing decisions but also in terms of broader economic trends. This shift in consumer habits is a key driver of economic transformation and it also poses a variety of challenges for industries, governments, and society at large [9]. Pandemics are catalysts for changes in consumer behavior. People respond differently to health crises, leading to different levels of purchasing patterns and economic impact. For example, some consumers react to pandemics by panic buying, and purchasing products in large quantities to avoid future shortages. This behavior is due in part to the rapid dissemination of information through the media, which leads to an increase in the intensity of panic buying by customers to the point where it affects the overall retail market and prices [4]. Driven by

anxiety about future conditions and the need for self-protection, this consumer behavior has significant economic implications, including inflation and shortages of necessities [9].

4.1. Shift to Online Shopping and E-commerce

The pandemic accelerated the shift to online shopping. Consumers who had previously shopped in brick-and-mortar stores began to shift to online platforms, primarily to minimize physical contact and comply with hygiene regulations [5]. This shift was particularly evident in Indonesia, where the use of e-commerce platforms surged. The outbreak has changed the way consumers shop, especially for non-food products, and has driven the growth of e-commerce and digital transactions. This trend is predicted to continue after the epidemic, suggesting a permanent shift in consumer shopping behavior towards online shopping.

4.2. Changes in Consumer Values and Consumption Patterns

Consumer values and consumption patterns have also changed. In the age of digitalization and pandemics, consumers are less sensitive to price and more concerned about the value of products. Consumers pay more attention to necessities and health-related products and prioritize products that add value to their lives [10]. This shift in consumer values has implications for businesses, as they need to adapt to changing consumer preferences and offer products that meet these new priorities [3].

4.3. Role of Government and Economic Stability

The role of the government in stabilizing economic conditions during a pandemic is critical since the government needs to provide accurate and transparent information to the public to guide them in making informed purchasing decisions. The government should also cooperate to ensure that essential goods are available at reasonable prices and distributed in a balanced manner [8]. These measures can help mitigate the impact of a pandemic on the economy and support the formation of new consumer behaviors that are likely to persist after a pandemic.

4.4. Challenges and Opportunities for Businesses

Businesses face the challenge of understanding and adapting to these new consumer behaviors. Pandemics lead to a shift in consumer focus towards basic needs and health, which changes demand patterns. Retailers and manufacturers must develop personalized marketing strategies to meet these changing needs [9]. In addition, the rise of online shopping presents both challenges and opportunities. While it offers new avenues for business growth, it also requires organizations to invest in digital infrastructure and adapt to a more digitally savvy consumer base.

In conclusion, the role of consumer behavior in economic growth during the COVID-19 pandemic is significant. The shift to online shopping, changes in consumer values and spending patterns, and the role of government in stabilizing the economy are key factors influencing this economic dynamic. Businesses and governments must understand and adapt to these changes to meet the challenges posed by a pandemic and seize the opportunities given by the evolution of consumer behavior [10].

5. Conclusion

Consumer behavior has undergone a significant shift from traditional consumption patterns to more dynamic and interactive behaviors, driven by big data and digital media. This shift reflects widespread consumer engagement with social media and online platforms, as well as a growing interest in sustainable consumption and the sharing economy. Businesses face the challenge of understanding and adapting to these changes, a trend that has accelerated especially during the COVID-19 pandemic.

Governments and businesses must recognize the revolution in consumer values and shopping habits, and the importance of this to economic stability and growth. As technology advances, businesses have the opportunity to pinpoint market needs through deeper data analytics, while at the same time facing significant responsibilities to protect consumer privacy and data security. In short, the impact of both big data and digital media on consumer behavior is far-reaching and complex, with significant implications for business in terms of strategy and market dynamics.

References

- [1] Elisabeta, I. (2014) *Social Media and its Impact on Consumers Behavior. International Journal of Economic Practices and Theories*, 4.
- [2] Hasan, M.M., Popp, J., Oláh, J. (2020) *Current landscape and influence of big data on finance. J Big Data* 7, 21.
- [3] Gupta, S., Chopra, C. (2020) *Impact Of Social Media On Consumer Behaviour*.
- [4] Saura, J. R., Reyes-Menendez, A., Matos, N., Correia, M. B., Palos-Sanchez, P. *Consumer behavior in the Digital age. Journal of Spatial and Organizational Dynamics*.
- [5] Wibowo A, Chen S-C, Wiangin U, Ma Y, Ruangkanjanases A. (2021) *Customer Behavior as an Outcome of Social Media Marketing: The Role of Social Media Marketing Activity and Customer Experience. Sustainability*. 13(1), 189.
- [6] Wang, Y., Xiang, D., Yang, Z., & Ma, S. (2018) *Unraveling customer sustainable consumption behaviors in sharing economy: A socio-economic approach based on social exchange theory. Journal of Cleaner Production*.
- [7] Alghizzawi, Mahmoud. (2019) *The role of digital marketing in consumer behavior: A survey*. 3, 24-31.
- [8] Wang, X., Lin, X., & Spencer, M. K. (2019) *Exploring the effects of extrinsic motivation on consumer behaviors in social commerce: Revealing consumers' perceptions of social commerce benefits. International Journal of Information Management*, 45, 163–175.
- [9] Sheth, J. (2020) *Impact of Covid-19 on Consumer Behavior: Will the Old Habits Return or Die? Journal of Business Research*.
- [10] Khayru, R.K. (2021). *Opinions about Consumer Behavior during the Covid-19 Pandemic. Journal of Social Science Studies (JOS3)*.