Exploring the Shifting Dynamics of Customer-Technology Interaction: The Recent Growth of Online Shopping as a Sociotechnical Phenomenon

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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Introduction

The widespread adoption of digital technologies in recent years has transformed the way customers interact with businesses. With the rise of e-commerce, social media, and mobile devices, customers can now access products and services in ways that were previously unimaginable. This has led to a fundamental shift in the dynamics of customer-business interaction, as online platforms increasingly become the primary point of contact between customers and businesses. As a result of the COVID-19 pandemic, customers have transitioned to purchasing items online rather than in-person. During the pandemic, there was a boost in e-commerce sales as it grew 44% and represented more than 21% of total retail sales due to many lockdowns, and people were forced to transition to online shopping ("*Future of online shopping: Evolving E-commerce trends",* 2021). As a result, there has been growing interest in understanding how online customer experiences compare to in-person experiences, and how this shift is shaping the relationship between customers and technology. The study of technology and its effects on society have become increasingly important as technology continues to play a larger role in our lives. Researchers have found that the use of technology in both online and in-person settings can shape customer experiences in different ways. A study by Muntinga et al. (2011) found that the use of technology in retail settings can enhance the customer experience by providing access to additional information and creating a more personalized experience. However, other studies have found that the use of technology can also have negative effects on the customer experience, such as creating a sense of disconnection and reducing the quality of interpersonal interactions (Verhoef et al., 2009). By analyzing the shifting dynamics of customer-technology interaction, this paper will use Social Construction of Technology to help the discussion about impact of technology on society by evaluating the evolving dynamics of customer-technology interaction.

Online Customer Shopping/Experiences Development

The development of online customer shopping experiences has revolutionized the way people shop. Over the years, online shopping has become more accessible and convenient, with many retailers offering user-friendly websites, mobile apps, and personalized experiences.

One of the most significant developments in online shopping is personalization. Retailers are increasingly using data analytics and machine learning to understand customer behavior and preferences (Marr, 2022). By analyzing customer data, retailers can personalize the shopping experience, making it easier for customers to find the products they want. This not only improves the customer experience but also increases the likelihood of a sale. For example, Amazon's recommendation engine uses machine learning to analyze a customer's purchase history, browsing behavior, and search history to suggest products that the customer is likely to be interested in (Hardesty, 2019). This not only improves the customer experience but also increases the likelihood of a sale. Other retailers, such as Netflix and Spotify, also use personalization to recommend movies, TV shows, and music based on a customer's viewing or listening history (The Neeva Team, 2021). A study by Epsilon (Gilman, 2022) found that 80% of consumers are more likely to make a purchase from a company that offers personalized experiences. Personalization has become so important that it is now considered a major part of the online shopping experience.

Another development in online shopping experiences is the use of virtual reality technology. Some retailers are using VR technology to enhance the online shopping experience, allowing customers to try on clothes or see how furniture would look in their homes before making a purchase. This helps customers make more informed decisions and reduces the likelihood of returns. For example, Ikea and Amazon have developed a VR concept for their app that allows customers to visualize how furniture would look in their homes. The app uses the camera on a

customer's phone to scan their living space and then shows them how different pieces of furniture would look in that space (Porter, 2022). Other retailers, such as Tesla, have been exploring the use of augmented and virtual reality in various aspects of its business, from design and manufacturing to sales and marketing. For example, Tesla has used augmented reality to showcase its cars to potential customers. Through an AR app, customers can place a virtual Tesla vehicle in their physical surroundings to get a sense of what it would look like in real life. Overall, the use of virtual reality in online shopping experiences has the potential to revolutionize the way customers shop online. By allowing customers to experience products in a more immersive way, retailers can improve the customer experience and increase sales.

In conclusion, the development of online customer shopping experiences has come a long way over the years. Retailers are continuing to innovate and improve the customer experience, with new developments such as personalization and virtual reality technology (Briedis et al., 2020). With the convenience and accessibility of online shopping, it is evident that it has become the preferred method of shopping for many customers.

Framework: Social Construction of Technology

Social Construction of Technology (SCOT) is a framework from Science and Technology Studies (STS) that are relevant to exploring the shifting dynamics of customer-technology interaction and comparing online and in-person customer experiences.

SCOT, on the other hand, emphasizes the role of social and cultural factors in shaping the development and adoption of technology (Bijker, 2015). According to SCOT, technology is not an autonomous force, but rather a product of social practices and values (Bijker, 2015). In the context of customer-technology interaction, this means that the design and use of technology in online and in-person experiences are shaped by social and cultural factors such as customer

expectations, cultural norms, and regulatory frameworks. SCOT helps to explain how the development and adoption of online and in-person experiences are shaped by the social and cultural context in which they are situated. As time progresses, customers look towards online shopping since almost anything can be found online rather than going in person or it just saves them a lot more time to purchase on their phone rather than having to spend time going out to stores. For example, if we were back in 2010, most people would go to store and shop for clothes, but now since technology have emerged, many customers shop for clothes online since almost everything can be found online in perfect sizes and designs rather than having to spend time looking for it in stores. This just shows how customers value their time and resort to online shopping as they have better experiences and interactions when purchasing things over the internet rather than in-person as it saves them a lot of time and is much more efficient.

After analyzing this framework, SCOT provides insights into the shifting dynamics of customer-technology interaction and the comparative analysis of online and in-person customer experiences. SCOT highlights the role of social and cultural factors in shaping the design and adoption of technology. By using this framework in a comparative analysis, we can gain a more comprehensive understanding of the complex and evolving dynamics of customer-technology interaction in an age where technology will only evolve from here on out.

Online vs In-Person Customer Experiences

Businesses are increasingly interested in understanding how online and in-person customer experiences compare to one another in the changing landscape of customer-technology interaction. One significant difference between online and in-person customer experiences is the role of technology in influencing interaction. In online interactions, technology is frequently the primary means of communication between customers and businesses, whereas in-person interactions rely

more heavily on face-to-face communication. This distinction has significant implications for customer behavior and expectations, as online interactions may be more transactional and impersonal, whereas in-person interactions may be more social and relational.

Another important factor to consider in the comparative analysis is the cultural and social context in which customer interactions occur. In online interactions, customers may be more likely to rely on social media and other online platforms for information and recommendations, while in-person interactions may be more influenced by local cultural norms and practices. These cultural and social factors can shape customer behavior and expectations in different ways and can also influence the design and implementation of technology to meet social needs and preferences. It is important to consider the evolving nature of customer-technology interaction, as new technologies continue to emerge and shape the ways in which customers interact with businesses (ITA Group, n.d.). For example, the rise of mobile devices and social media has led to new forms of online customer interaction, while the pandemic has accelerated the adoption of virtual and augmented reality technologies in the in-person customer experience (ITA Group, n.d.). Businesses can continue to adapt and improve their customer interactions to meet the changing needs and expectations of their customers.

Online experiences have developed in response to various social and technological factors, including the increasing availability of high-speed internet, the rise of social media platforms, and the growing use of mobile devices. One key advantage of online customer experiences is the convenience and accessibility it has to offer. Customers can access products and services from anywhere, at any time, without the need for physical travel or face-to-face interactions. This convenience has been made possible by the rapid development and deployment of online technologies, including e-commerce platforms, mobile apps, and social media. In addition, online

experiences often offer greater flexibility and customization, allowing customers to tailor their interactions to their individual needs and preferences.

However, it is important to note that online experiences also have some limitations and drawbacks compared to in-person experiences. Online interactions may lack the personal touch and social cues of in person interactions, and customers may be more likely to experience technical difficulties (Baker 2020). Also, not all customers may have equal access to online technologies, leading to potential disparities in customer experiences and outcomes. As technology is evolving, any consumers who do not adopt new technologies that are developing, cannot necessarily participate in emerging technological experiences. The development of online customer experiences can be understood as a complex interaction between technology and society, shaped by social factors such as culture, politics, and economics. While online experiences offer many advantages in terms of convenience and flexibility, they also present some challenges and limitations compared to in-person experiences. However, as the evolution of digital technologies continues to grow, it is likely that online experiences will continue to evolve and improve, providing new opportunities and challenges for businesses and customers to adapt to.

Conclusion

In conclusion, by examining the role of technology, cultural and social context, and emerging trends, businesses can gain a better understanding of how to design and implement effective customer interactions that meet the needs and expectations of their customers. The development of online customer experiences can be understood as the rise in evolution of technology and society, in which the design and implementation of technology is shaped by social factors, and in turn, technology shapes social practices and behaviors. The emergence and widespread adoption of digital technologies have transformed the ways in which customers

interact with businesses, leading to a shift in the dynamics of customer-business interaction. Online customer experiences are characterized by personalization, convenience, and speed, while in-person experiences are characterized by human interaction, sensory perceptions, and social context. However, customer behavior and expectations can also be influenced by a range of factors, including cultural norms, social contexts, and individual preferences. By exploring the Social Construction of Technology framework, the paper provides a foundation for future research into customer-technology interaction and its implications for business, society, and technology design.

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