

THE IMPACT OF WEBSITE DESIGN ON CONSUMER DECISION MAKING – EVIDENCE FROM NORTH MACEDONIA

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ABSTRACT

It is estimated that there are more than 26.5 million e-commerce sites and more than 2.64 billion digital buyers worldwide. The hypothesis that more life moves online, the less damage to our environment is still unclear. E-commerce sites and the underlying supply chain can have both positive and negative impact on the environment. Sustainable web design is an approach in designing websites that puts people and planet first. It is a growing movement as organizations look opportunities to reduce their influence on the environment.

This research investigates the impact of website design on consumer decision making in e-commerce. It discusses how different website characteristics determine consumer behaviour that shapes online purchase processes and affects the final consumer decision to buy. Consumer decision making and behaviour during online shopping in the literature is measured by numerous models. One of the primary motivators for any online store to attract customers is the quality of website design. Website quality refers to the overall excellence, effectiveness, and usability of a website. It influences consumers' perceptions of product quality and affect online purchase intentions (Sun, Chen, and Huang, 2014) and even continuation intentions (Chawla et al., 2015). Website quality as well positively affects the online impulse buying behaviour (Akram et.al. 2018). The design of a website interface plays an important role in online purchasing, and customers are more likely to visit and buy from better designed websites (Chiu and Yang, 2016). This paper proposes that website design quality is a multi-dimensional construct. To support the importance of the construct, examples for specific products and website characteristics from online consumers from the country will be presented. This study has managerial implication for e-vendors implying that to promote online shopping, they need to improve quality features of website and enhance users' trust.

Keywords: *Consumer Behaviour, North Macedonia, Website Design*

1. INTRODUCTION

1.1. E-commerce and online shopping - global profile and trends

The first internet-based retail transaction took place almost three decades ago (on August 11, 1994) and the internet has been continuously reshaping the way we shop ever since. Today, e-commerce plays a crucial role in the world economy and in everyone's lives. E-commerce has witnessed significant growth in recent years, especially due to COVID-19 pandemics and has

reshaped the global retail industry in large scale. Within e-commerce, online shopping is one of the most popular online activities. While many consider synonyms and use interchangeably, online shopping more specifically is a form of electronic commerce which allows consumers to directly buy products or services from a seller over the internet using a web browser or a mobile app. Online shopping is only one aspect of what we know as e-commerce. It is an e-commerce activity which involves purchasing items on a seller's website via credit or debit card, and having the item delivered to consumers home (Cunningham, 2019). Online stores usually enable e-shoppers to search items online via web searches and by conducting online research with online shopping, customers purchase items from anywhere in the world via a digital platform. Access to a global marketplace and its convenience, are among the best benefits of online shopping both for buyers and/or sellers.

Online shopping has grown significantly in the last few years, and from the numbers, it can be expected this market to grow even bigger. It is estimated that currently there are over 26.5 million e-commerce websites operating worldwide and more and more are being created every day. Between 2019 and 2023, the number of e-commerce websites worldwide has increased from 9.2 million to 26.5 million. The United States is the leading country having the most e-commerce websites almost 14 million websites (13.98 million), followed by United Kingdom (1.24 million), Brazil (0.73 million), Germany (0.72 million), Australia (0.65 million), France (0.57 million), Russia (0.55 million), Italy (0.49 million), Canada (0.47 million) and India (0.43 million) (Kiniulis, 2023). With the rise of the number of e-commerce websites, the number of online shoppers worldwide rises as well. As it stands in 2023, the number of digital buyers is 2.64 billion. This one third (33.3%) of the total world population. Literally, one of three people is an online shopper. This is not surprising, as the internet connectivity penetrates the world and online shopping becomes increasingly convenient. From marketing perspective, online shopping events offering huge discounts such as Black Friday and Cyber Monday, Singles' Day in China, Amazon Prime Day have also played their part in stimulate shoppers to buy online. The number of online shoppers is expected to continue rising up to 2.71 billion in 2024 and 2.77 billion in 2025. According to available data, in 2021, retail e-commerce sales amounted to approximately 5.2 trillion U.S. dollars worldwide (Statista, 2023). In 2022, global e-commerce sales grew by 6.5 percent compared to the previous year and it is accounted for approximately 19% of all retail sales worldwide. It is expected (forecasted) that these figures will grow by 56% over the next years, reaching about 8.1 trillion dollars by 2026. (Statista, 2023). For years, online retailers have been optimizing the mobile experience to increase their online sales. As a result, mobile commerce is growing as well. According to Statista's Market Insights, mobile e-commerce sales reached \$2.2 trillion in 2023 and now make up 60 percent of all e-commerce sales around the world (Buchholz, 2023). As of April 2023, Amazon was the most popular online marketplace worldwide, averaging about 4.8 billion visits that month. The second most visited shopping site was eBay, with roughly 1.2 billion visits (Statista, 2023). Furthermore, by the end of 2023, near 21% of retail purchases and by 2026, 24% of retail purchases are expected to take place online. The e-commerce market is expected grow to total over \$8.1 trillion. Amazon accounts for 37.8% of e-commerce sales, the highest market share of all e-commerce companies. While some customers might shop online occasionally, most of them, 79%, do so monthly and 58.4% of internet users buy something online every week. The current categories with more spending are consumer electronics (\$988.4 billion) and fashion (\$904.5 billion) (Kemp, 2022). Although there are no age barriers to buy online, online shopping is very attractive among young consumers. It is part of their regular routine, regardless of what they're looking for and how much money they are ready to spend. According to Forbs e-commerce recent statistics, online shoppers spent \$9.12 billion only on Black Friday in 2022 and 87.12 million people shopped online ate the same event (Forbs, 2023).

1.2. E-commerce and online shopping in North Macedonia

E-commerce is growing in North Macedonia, but is still relatively limited, both in terms of local retail selling and consumers shopping online. According to the UNCTAD report of 2020, measuring the B2C e-commerce index of countries North Macedonia was ranked 52 out of 152 countries. The country was no exception regarding the dynamic growth in e-commerce boosted by the COVID-19 pandemic, witnessing online sales growth, exclusively for grocery shopping (www.unctad.org). According to the official statistics of the NBRNM for 2021, the value of online transactions realized in the country and abroad amounted to 86.6 million euros, which compared to the same period in 2020 is an increase of 74.6%. According to the NBRNM data on the number of virtual sale points (e-commerce websites), as of March 31, 2021, there were 1,552 active virtual sale points in the country, and in June 2022 this number increase on 1762. (www.nbrm.gov.mk).

According to the Annual Report of the Association for E-commerce of North Macedonia, for 2022, the Macedonian e-shopper mostly buys clothes online, and the least furniture and food, and he does it once up to two times in 3 months in orders usually up to 50 euros. 67% of Macedonians who shopped online in the last 3 months bought/ordered clothes (including sportswear, shoes, and accessories), and are close to the European average of 68% for these products. Sports equipment was bought by 16% of Macedonians, then other products by 12%. A much smaller percentage of Macedonian online shoppers bought or made orders for other categories compared to the European average. According to the data of the State Statistics Office (2022), 86.4% of the population aged 16-74 use the internet (this percentage in developed countries is almost 100). From the analysis of the online activities of Macedonian internet users, it is noted that the most they use the internet to chat and less to write, search for information, sell online or learn and pay online. Significantly below the European average, Macedonians use the internet to find information about products and services (66%), to send e-mails (56%), internet banking (31%), online learning (15%) and selling products and services, (6%) etc. At the same time, 46% of Macedonian internet users bought/placed an order online in 2021 compared to 40% in 2020. According to the Report of Association of e-commerce of North Macedonia (2022), compared to the region, the Republic of North Macedonia is two places higher than last year, i.e., it is better than Romania and Bulgaria, in addition to Bosnia and Herzegovina, Montenegro and Albania. The Balkan countries are still at the bottom of the ranking table with European countries, and Serbia is the best ranked, where 53% of internet users made online orders. The analysis of all available data in 2022 shows that despite the progress made compared to other European countries, acceleration is needed in all links of the chain of e-commerce operations in the country.

Beside the potential and the expected growth of e-commerce, its impact on the environment is gaining attention as never before. According to the E-commerce and the EU Green Deal analysis (2021) “the dichotomy between online and offline retail commerce has become increasingly blurred, and the environmental footprints of these two business models are becoming intertwined” (Collini et al., 2022). In literature, the two-dimensional impact of e-commerce on environmental sustainability is found. One dimension supports a positive nexus between e-commerce and environmental quality while the other reports a negative association (Cheba et al., 2021). Different studies have reported both positive and negative environmental impacts of the e-commerce and its supply chain. Still, there is a lack of consensus in the literature as to whether e-commerce impacts the environment on more positive or more negative way.

To summarise, there is no doubt based on these statistics and growing trend, that the future of e-commerce and online shopping is more than promising. But the question that arises is what

this e-commerce growth means for the environment from both buy side and sell side, or is it more environmentally friendly than the traditional brick and mortar retail? The importance of the question of the environmental sustainability of e-commerce rises in parallel with the increase growth in e-commerce share in the global economy and the increase of the awareness about environmental pollution and global climate change as significant global challenges in general. Having in mind the increase of the number of digital buyers, it is largely important to understand what impacts their decision to buy online and how aware they are about the environmental impact of the products they are buying. More and more digital consumers highlighted that their environmental concerns impact their purchasing decisions (Global Web Index, 2018 cited in Rao, 2021). According to the research of Rao (2021), as consumers are becoming more aware of what their lifestyle choices are doing to the planet, their attitudes towards environmental sustainability of the end-to-end e-commerce supply chain will impact the intention to use/continue using online shopping channels. But Tiwari and Singh (2011) state that decision-making for environmentally concerned e-commerce consumers is not that easy, given that e-commerce has both positive and negative environmental impacts (Tiwari and Singh, 2011). On the other hand, as global carbon emissions continue to rise (EPA, 2022) concerns about the contribution of IT industry and its impact to climate change have become more urgent. It is estimated that only the internet is responsible for 3.7 % of global greenhouse emissions and it is predicted that the IT industry will increase its responsibility by 14% by 2040 (BBC, 2020). Lately, terms such as "green coding", "green software", and "green IT" have emerged, referring to the practice of incorporating environmental considerations into software development (García-Mireles et al., 2018)

In this sense, having in mind the enormous increase of the number of e-shoppers and in parallel the number of websites, the goal of this study is to elaborate what website characteristics are crucial in consumers' decision making in online shopping. Based on that knowledge consumers could be influenced to make green purchase decisions when buying online. As well, e-retailers should improve their e-commerce websites and make them more environmentally friendly. In this way, relevant design principles will be applied, and relevant features will be incorporated in the e-commerce websites and areas for potential improvement will be identified in order to increase sustainability. Sustainable web design prioritizes people and the planet in the development of digital products and services.

2. CONSUMER BEHAVIOR AND WEBSITE DESIGN

In latest years, consumers are becoming more and more aware of the impact of the products they buy on the environment and hence it is expected that many buyers are more likely to gravitate towards retailers who are serious about sustainability. One study found that nearly 30% of consumers would stop buying clothing from a company if they discovered it was not committed to sustainability (Nosto blog, 2019). Conscious consumers are the leading cause for the rise of sustainability within the e-commerce industry (Llewellyn, 2023). Hence, it is important to understand why and how consumers make green purchase decisions when shop online.

On the sell side, there are many ways that e-commerce companies are moving towards greater sustainability, such as using biodegradable packaging, reducing packaging size, using recyclable materials when possible, optimizing transport of packages etc. On the buy side, it is important to understand how consumers make purchase decisions to offer more sustainable products on more sustainable way. Website development is essential for creating an online presence, e-commerce, communication, and information sharing, making it crucial in today's digital era since it represents foundation for building a successful brand in the digital world. In recent years, the web development industry has made websites more sustainable through green

hosting and sustainable approaches in both back-end and front-end levels of websites to design lower-impact websites in the e-commerce sector. Hence, website development is another strategy for e-retailer in achieving greater sustainability by creating sustainable, lower-impact websites. To do that, important website characteristics and features should be analysed from customer perspective.

In the literature, consumers' online shopping behaviour is being affected by different factors and measured by different models. Theories and models of adoption of new technologies are in fact explanations of the factors influencing the decision making over adoption and usage of new technologies and therefore they are relevant to explore the adoption of online shopping behaviour. Website design and characteristics have proven to be of importance to determine intention by consumers to buy online, as was explained previously. The quality of website design is very important for any online store to attract customers (Ganguly et.al., 2010). Website quality refers to the overall excellence, effectiveness, and usability of a website. Website quality influence consumers' perceptions of product quality, and affect online purchase intentions (Sun, Chen, and Huang, 2014) and even continuation intentions (Chawla et al., 2015). The website quality as well positively affects the online impulse buying behavior (Akram et.al., 2018). The importance of website design is high since it affects customers directly during the purchasing process. It is confirmed that website characteristics determine the customer's perception of the online store (Yoo et.al. 2023) and can impact the final decision to buy. Website design can be observed through its three dimensions: information design, navigation design and visual design. In the literature, certain website design elements directly influence customer satisfaction and e-commerce loyalty (Mitas et al., 2006, Tarafdar, 2016).

In the last couple of years, our research was intended to explain shopping behaviour among youth in North Macedonia, focusing on specific circumstances such as the Covid 19 crises, payment option, specific products (food, apparel, gadgets...). For that purpose, we conducted several surveys (150-200 respondents) and investigated demographic characteristics and online behaviour. Questionnaires were prepared to follow the models. We used TAM (Technology Acceptance Model) and UTAUT (Unified Theory of Acceptance and Use of Technology) models with their basic constructs (Davis, 1989; Venkatesh et al., 2003). More recent literature reviews on those popular and widely exploited models can be found in Bulsara and Vaghela (2020) and Haryanti and Subriadi (2020). The most recent advances in the development of the models imply several new determinants to be considered. Extensions of the initial well-known models are numerous and are very diverse. Extended TAM models are extended from the original by adding trust and enjoyment. Trust as an independent variable is embedded in the system and influences e-commerce transactions and thus (Yoo and Jang, 2019) and thus open research space to uncover the reliability of trust variables in current e-commerce. User experience connected with the quality of the web sites and applications is one of the reasons for reusing systems and tools for online shopping. Still, user experience that ultimately determines user interface design is very dependent on the segment chosen (youth, generation Z, gender, cultural habits, socio-economic factors) and psychological characteristics of the respondents. Extended TAM where trust of payment is added as independent variable can be found in Bailey et al. (2017). Web site quality and brand equity are proven to be significantly influencing online shopping (Chi, 2018). Perceived enjoyment, privacy and security have significant positive influence on behavioural intention in online shopping behaviour (Barry and Jan, 2018).

Authors (Venkatesh et al., 2012) have extended UTAUT (named UTAUT 2) by exploring the technological internet usage of mobiles. UTAUT extended constructs are mainly in the direction of including trust and enjoyment (Nur and Panggabean, 2021; Nur and Gosal, 2021). In their research it was explained that there is a significant positive relationship between web quality, effort expectancy and the perceived enjoyment with online purchase intention.

Furthermore, the findings confirmed the importance of integrating risk when studying technology adoption factors in the consumer context. Financial risk has a direct negative impact on online purchase intention and an indirect one on online repurchase intention. Perceived risk while shopping online as extension of an UTAUT model is used in Aref (2023). Internet facilitating conditions are negatively associated with perceived risk. Since the quality of a website can influence making an online presence, it can be valuable to explore the influence of e-shopping service quality (or online shopping service quality) as an additional construct of UTAUT (Rehman et al., 2019). In recent study by Rehman et al. (2022) they investigated UTAUT extended model with two added constructs - e-shopping service quality and offline brand trust and their influence on online shopping intention and moderating effect of on online shopping drivers (the original UTAUT constructs). The results of their study indicate that e-shopping drivers are indeed influenced by e-shopping service quality and offline brand trust is the key factor that moderates the relation between e-shopping drivers and e-shopping intention.

3. EVIDENCE FROM NORTH MACEDONIA

In our recent research endeavours in the last years, we used both TAM and UTAUT models to test the significance not only of the basic constructs proposed by the authors of the models, but we tested additional constructs, as well. In our research the respondents were mainly young population (gen z, or younger than 40 years old) due to their limitless use of new technologies in their lives.

In Trenevskaa Blagoeva and Mijoska (2017:1) we used TAM extended with relevant constructs that are essential for online shopping adoption among youth– trust, website usability and customer service. In our research model, we have hypothesized the influence of website usability and customer service on the perceived usefulness defined and measured through total of 7 statements proven to be relevant (high Crombach's alpha) to represent the idea. Both hypotheses that web site usability and customer service influence perceived usefulness were not rejected, as well as the hypothesis that trust influences attitude towards online shipping.

In Trenevskaa Blagoeva and Mijoska (2017:2) the authors used basic UTAUT 2 model to investigate the adoption of mobile internet usage in the country. In the context of the research to add relevant new constructs, attention is paid to habit, hedonic motivation, and price value as predictors of mobile internet usage. In the context of promoting sustainability, the growth of mobile technology and smartphones allow users to control when, where, and how they engage in chosen activities that serve their needs, saving time, completing a task (utilitarian), entertain them (hedonic), or connect with others who share certain believes and values (social). Findings indicate that mobile users' engagement motivations including hedonic motivation do influence perceived value, satisfaction, and mobile engagement intention.

In Trenevskaa Blagoeva and Mijoska (2018) UTAUT 2 was selected as model to explain online shopping behaviour in North Macedonia. Experience and habit (HA) are related predictors that are influencing user adoption of technology. Passage of time can result in the formation of differing levels of habit depending on the extent of interaction and familiarity that is developed with a target technology. In this context, habit is a perceptual construct that reflects the results of prior experiences. In their research, Wang, Harris and Patterson (2013) concluded that as learning occurs and experience accumulates, customers continued use of a certain technology is initially largely rational driven (self-efficacy), then largely emotional driven (satisfaction), and, finally, habitual (habit). Over time, habit completely mediates the impact of intentions on future usage. Those added constructs to the initial model in our research were significant predictors of the behaviour and intention to shop online. Therefore, following the line of sustainability in the design of the web site and promoting eco-friendly content is instrumental in the actual usage and intention.

The Covid -19 pandemics change consumer behaviour towards online shopping. In this respect in Trenevsk Blagoeva et al. (2021) extended TAM approach was used to explore determinants of online food ordering. To get insights regarding the young consumer behaviour towards online food purchasing in the country, a survey was conducted among more than 150 young people during April and May 2021. This study examines the crucial factors encouraging young consumers to use online food delivery channels based on the following constructs: perceived ease of use, perceived usefulness, attitude towards using, actual use and website trust. Website trust is an important factor that significantly contributes to the perception of online food purchase. If the customers find the websites to be safe, with correct information, clearly stated conditions for purchase and with guaranteed privacy, they will be encouraged to think that online food purchase is a good idea, they will begin to like to concept and to use this type of purchase in the future. Web site trust is measured by the acceptance of several characteristics typical for sites for food ordering such as simplicity and convenience, expense effectiveness, availability 24/7, easy way of payment, delivery (fast, free, correct address), diverse menu, safe for consummation, easy way to order. For further research food origin, organic production, low energy consumption and other factors can be included in the model.

Both extended models (TAM and UTAUT) were empirically tested to explain behaviour of students while learning online due to the pandemics (Mijoska et al. 2022; Trenevsk Blagoeva et al.2022). Perceived enjoyment positively influences behavioural intention. The entertaining and fun perception of online learning contributes to the intention to further use online learning in future educational activities and satisfaction.

Our current research aims to fill this gap and explore the influencing factors on young consumers' impulsive behaviour while online in North Macedonia. Web site quality and impulse buying tendency are main significant predictors of impulse buying while online. This research supports the presumption that web site quality is an important predictor of the consumer's impulsive intentions. Generation Z customers have different motivations to create a flow state that leads to impulse buying behaviour. Type of products offered online were found important predictor of online IBB in some studies. Still, this result should be analysed in further research more thoroughly by describing the features of the web sites in more detail and incorporating economic factors in the general model.

4. CONCLUSION

The environmental impact of the human-computer interaction includes electronic waste, resource depletion, increased energy consumption and carbon footprint. The growth rates in e-commerce in general impose that solutions are needed on both buy side and sell side. This requires understanding consumer decision making process and online behaviour as well as a more sustainable approach to website design especially for virtual stores. Website development is another strategy for e-retailer in achieving greater sustainability by creating sustainable, lower-impact websites. In North Macedonia there is a steady positive trend of e-commerce growth. Still, there is room for further development of e-commerce in the country. However, offering a sophisticated online shopping experience as in developed markets requires investments in technology, processes, people, resources. Our past and current empirical research of the determinants that influence technology use indicate that various aspects of web sites design and user experience such as joy, habit, trust are significant predictors of online shopping intention. Sustainable e-commerce, environmentally conscious consumers and low-impact websites are promising solutions for ensuring that the growth of online shopping will have positive impact on the environment and hence benefit for all.

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