

Online Consumer Behavior Influenced by Rising Prices and Shortage of Goods after COVID-19 and During Wartime

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Abstract

In recent years, technological development in the IT&C field led to the exponential increase in the number of mobile terminals such as smartphones, but also in the speed of data transmission, thus creating the premises for the intensification of online commerce. This research focuses on online consumer behavior influenced by a series of elements from the external environment such as rising prices and shortage of goods after COVID-19 and during wartime to see what changes have been in the consumer's decision-making process. The restrictions of the COVID-19 pandemic generate the widespread adoption of online commerce where traditional companies have been forced to think in terms of "digital" and "online", to adapt their operating systems, and intensify their presence on the internet and social media channels. Also, the supply chain disruptions, the container crisis, and the rising prices for energy resources caused a shortage of goods and rising prices. The current global problems are becoming a challenge for both advertisers and consumers. These challenges are met by both parties, and they must adapt to these changes: the consumer to rethink his decision-making process when shopping, and advertisers to understand what influences the consumer in the online environment, to adapt and to be able to survive in this competitive context. The results showed that disruptive elements change this process almost completely and that consumer behavior adapts and changes when major phenomena such as those mentioned occur.

Keywords: Consumer behavior, wartime, shortage of goods, rising prices.

JEL classification: M31.

1. Introduction

According to Kotler, P., Armstrong, G., (2018), "The microenvironment consists of the actors close to the company that affects its ability to engage and serve its customers—the company, suppliers, marketing intermediaries, customer markets, competitors, and the public. The macroenvironment consists of the larger societal forces that affect the microenvironment—demographic, economic, natural, technological, political, and cultural forces." The changes that take place in these environments are reflected in the general practice of companies to consumers and vice versa. Companies need to adapt and understand the phenomena they face to fit their marketing strategies to the new needs of the consumer who now have new spending habits, needs, and behavior.

According to Rogers, K., & Cosgrove, A. (2020), “Consumer-facing companies urgently need to anticipate what kind of consumer is emerging, so they can make it through the current crisis and build the capabilities that future relevance will require.” The existing crisis was exacerbated by another major event, such as the war between Ukraine and Russia. Thus, the global health crisis followed by a political one leads to a global economic crisis that is reflected in rising prices and shortage of goods. “An international crisis begins with a foreign policy crisis for one or more states. The trigger to a foreign policy crisis derives from three interrelated perceptions generated by a hostile act, disruptive event or environmental change.” (Brecher, 1996).

Even if unforeseen events occur, technological development is an essential and helpful factor in continuing natural activities such as shopping which is taking place more and more in the online environment.

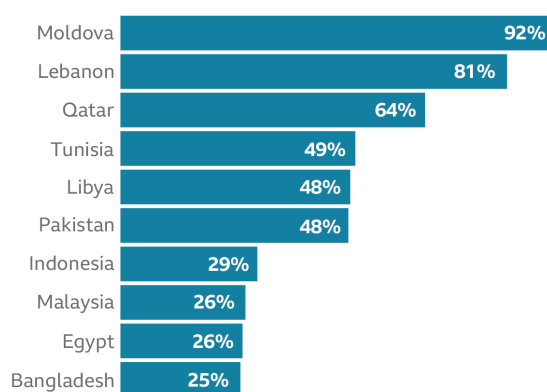
Online marketing refers to marketing via the internet using company websites, online advertising and promotions, email marketing, online video, and blogs. Social media and mobile marketing also take place online and must be closely coordinated with other forms of digital marketing. (Kotler, Armstrong, 2018)

2. Problem Statement

Wars and pandemics are unstable events that have major consequences for humanity. Adaptation, understanding the situation we are subjected to and acceptance is the key elements that help us overcome any moment which can be destabilizing. The end of 2019 was a moment that made its mark in history because of the COVID-19 virus, followed by a 2-year period in which the lives of billions of people were fundamentally changed and forced to readjust. Because of the pandemic When things seemed to calm down, a whole new and unforeseen situation arose: Russia attacked Ukraine, the country that was the largest exporter of key crops such as sunflower oil, maize, barley, and wheat. This attack slowed down and even stopped exports to other countries that depended on it and made producers find other ways to supply. According to Hegarty S. (2022), “Covid had a big impact too. In Indonesia and Malaysia, labor shortages meant lower harvests of palm oil, which pushed up vegetable oil prices globally. At the beginning of this year, the price of many of the world's staple foods was reaching all-time highs. Many hoped that crops from Ukraine could help make up the global shortfall. But Russia's invasion has prevented that.” According to what was said, the combination between pandemic and war conduces to a difficult situation: labor shortage and shortage of goods.

Ukraine plays crucial role in the global food supply

% of wheat imports sourced from Ukraine



Source: UN Food and Agriculture Organization, data for 2020



Figure 1. Ukraine's role in the global food supply

Source: <https://www.bbc.com/news/world-europe-61583492>

The pandemic repercussions meant major losses: according to statistics, more than 6 million people died. Some of them represented a part of the working-age population that now needs to be replaced or rethought so that activities can continue. Restrictions imposed to reduce the virus spread were so difficult that people were forced to stay at home as long as possible, and avoid as much as possible interactions and pre-covid activities. Due to those limits, the online environment has become the most used and gained ground in this period for marketers and consumers. Effects were seen quite quickly on the market as well: many businesses have closed and a large part of them have moved their activity exclusively online.

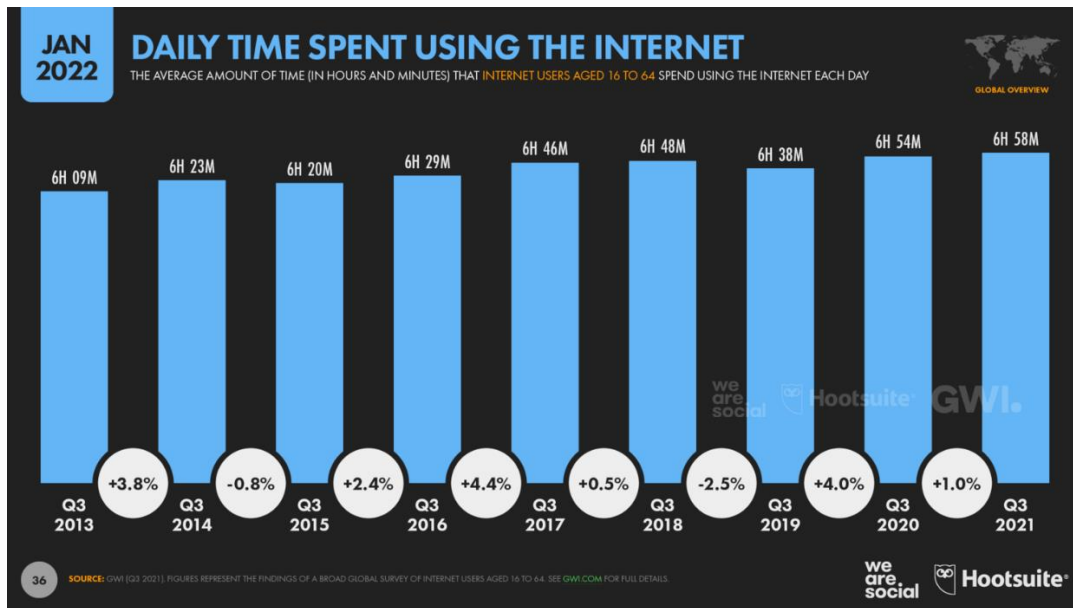


Figure 2. Daily time spent using the internet

Source: <https://datareportal.com/reports/digital-2022-time-spent-with-connected-tech>

According to research from GWI, the COVID-19 pandemic has helped increase the number of hours spent on the Internet. As we see in Figure 2, between 2019 and 2021 the number of hours spent increased, reaching almost 7 hours.

This change comes with several challenges that marketers must overcome: to adapt to online consumer needs. The modern concept of marketing starts from the premise that any economic activity must be directed towards satisfying the requirements -effective and potential- of consumers, with maximum efficiency. [...] In this context, for the development of complex mechanisms for transforming needs into demand for goods and services, a special place in the theory and practice of marketing belongs to the study of consumer behavior. (Cătoi & Teodorescu, 2004).

3. Research Questions/ Aims of the Research

The research aimed to study the behavior of online consumers aged between 18 and over 55 years from Romania, influenced by rising prices and shortage of goods after COVID 19 and during wartime. This research focuses on understanding consumer behavior during this period of crisis and sees what are the consumer trends in the online environment. To completely understand this, we have developed a series of objectives aimed to discover what influences the consumer during this period, the decision-makers when shopping online and how consumers adapted their needs to the market offer.

- Identifying why consumers have shopped online during the COVID-19 pandemic
- Measuring the relevance of the criteria that determine the consumer to shop online

- Identifying buying habits in this economic period dominated by the effects of the COVID-19 pandemic, the war in Ukraine, the energy crisis, and the food crisis
- Determining how the rising prices and shortage of goods influence online consumer behavior in general

4. Research Methods

In the first part, we made exploratory research that helped us to provide a general framework of the investigated problem where we used primary data sources. Also, quantitative research was made where we used the survey method and built a questionnaire about “Online consumer behavior influenced by rising prices and shortage of goods after COVID 19 and during wartime”. An online survey platform was used to collect the answers from the targeted sample. For a better analysis, the following data are presented in the form of graphs. Research results should be a benchmark for online marketers to understand consumer behavior and adapt their marketing strategy to it.

5. Findings and research limits

For this research, we made a questionnaire with 21 questions, 15 questions related to the researched topic, and 6 filter questions that help us identify the consumer profile. The study involved 100 respondents, women and men from rural and urban areas in Romania between the ages of 18 and over 55 who shop online.



Figure 3. Consumer characterization in terms of buying habits in this economic period dominated by the effects of the COVID-19 pandemic, the war in Ukraine, and the shortage of goods

Source: Author's contribution

According to the answers, we can see that a significant part of the respondents is frugal during this period when they shop and choose to spend their money in an organized way, either having an established shopping budget or choosing to buy only the necessary products. 21.4% of respondents choose to shop only when they need something and according to this, we can characterize them as prudent consumers.

The second category of respondents, the ones who carefully calculate their expenses and represent 41.7%, answered that they are limited by a set budget. Considering this we can assume that they are organized consumers.

The last category of respondents stated that they did not have a budget and that they can buy everything they need. According to the answer given by these consumers, they do not seem to be affected by the mentioned events yet. We can say that these are the unaffected consumers.

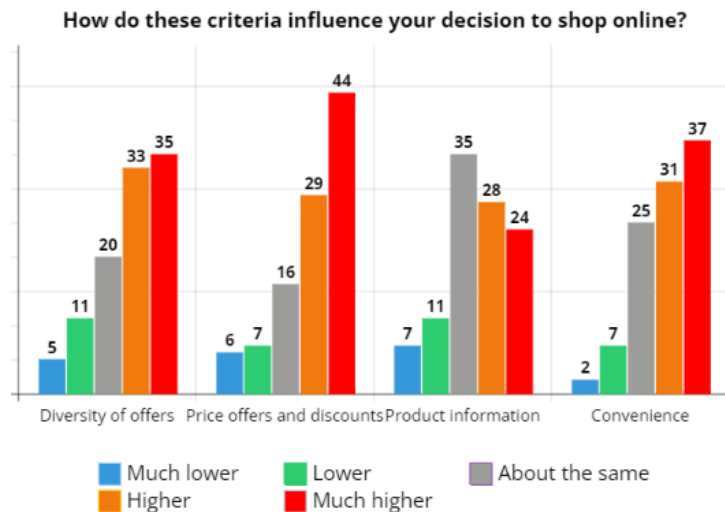


Figure 4. How consumers are influenced to shop online by certain criteria

Source: Author's contribution

To see which criterion influences the consumer's online buying decision the most, we will calculate the average score for each criterion by assigning scores from 1 to 5 as follows: Much higher- 5; Higher-4; About the same-3; Lower-2; Much lower-1.

Score Diversity offers: $35 \times 5 + 33 \times 4 + 20 \times 3 + 11 \times 2 + 5 \times 1 = 175 + 132 + 60 + 22 + 5 = 394$

Score Price offers and discounts: $44 \times 5 + 29 \times 4 + 16 \times 3 + 7 \times 2 + 6 \times 1 = 220 + 116 + 48 + 14 + 1 = 399$

Score Product information: $24 \times 5 + 28 \times 4 + 35 \times 3 + 11 \times 2 + 7 \times 1 = 120 + 112 + 105 + 22 + 7 = 366$

Score Convenience: $37 \times 5 + 31 \times 4 + 25 \times 3 + 7 \times 2 + 2 \times 1 = 185 + 124 + 75 + 14 + 2 = 400$

The obtained results after calculating the score show us that the first criterion that influences consumers is convenience, which means that it is quite easy for them to shop online and that they have adapted to this environment quite well, moreover, they use this method of shopping. The second criterion is represented by price offers and discounts, this shows that consumers are attracted by lower prices and offers. The third place is occupied by the diversity of offers, the online environment is a place where the consumer can consult several offers in a much faster and easier way. The last place, product information is less important for consumers who participated in this survey.

Does the shortage of goods make you secure a stock of products
when you find them available?

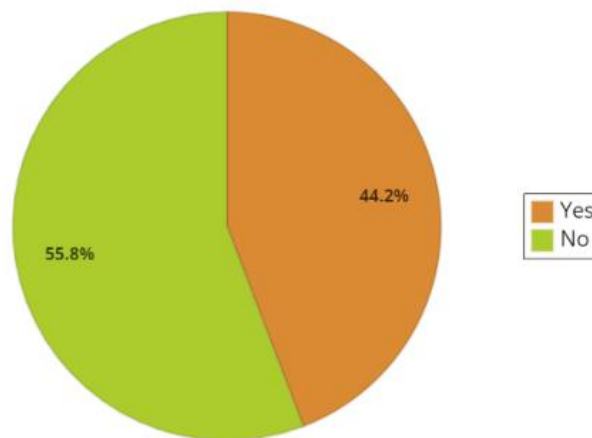


Figure 5, Does the shortage of goods make consumers secure a stock of products when they find them available

Source: Author's contribution

The answers of the respondents participating in this study show that a percentage of 44.2% of them are influenced by the shortage of goods and choose to make a stock of products while 55.8% of them are not influenced by this aspect and do not make a stock of products. Relatively balanced results show that consumers are divided into two categories and act according to what influences them: the feeling of fear because they may not find the product or the certainty that the desired product will appear in the end.

How often do you shop online?

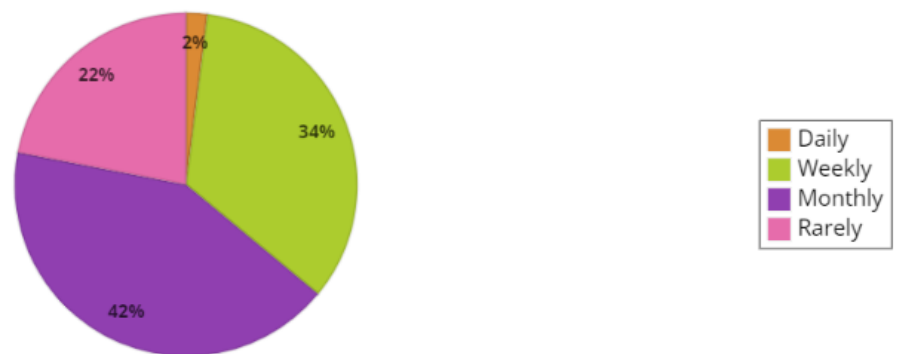


Figure 6. Frequency of online shopping

Source: Author's contribution

Conforming to responses, the respondents participating in the study make online shopping quite frequently: 2% of them daily, 34% weekly, 42% monthly, and 22% rarely. This helps us to place correspondents in a category of online consumers

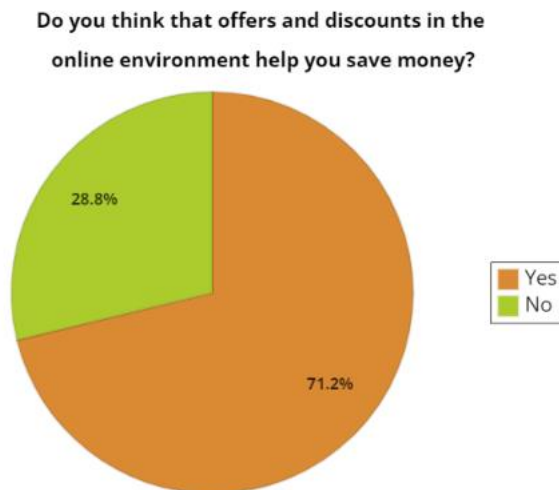


Figure 7. Offers and discounts help consumers save money
Source: Author's contribution

At the question “Do you think that offers and discounts in the online environment help you save money?” a very large part of the respondents answered with “Yes”, a percentage of 71.2% of them and 28.8% had a negative answer. This difference shows the importance of the consumer's perception of these price advantages.

It is important to take into account the limitation of this research and the limited number of 100 respondents. For this reason, the research is not representative.

Conclusions

Changes in the micro and macro environment are very likely to influence online and offline consumer behavior. According to the results of the research, a large part of consumers became more cautious when they chose to shop online and were largely influenced by offers and discounts. This means that marketers could adapt their marketing strategy to this need and try as much as possible to offer a discount to the consumer. The results showed that consumers consider that they save money when they benefit from a discount and thus the chances that they will buy increase.

During this period of rising prices, the consumer considers that when he pays less for something automatically, he saves and comes out a winner in this situation. Winners can also be those who take into account this perception and choose to offer the consumer as much as possible what he wants. Also, in this study we discovered many consumer patterns during this period, namely: prudent consumer, organized consumer, and unaffected consumer. Based on these, they make decisions in the online environment when shopping.

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