



Instituto Politécnico
de Viana do Castelo

**ASSOCIAÇÃO DE POLITÉCNICOS DO NORTE (APNOR)
INSTITUTO POLITÉCNICO DE BRAGANÇA**

**The impact of COVID-19 on Consumer Behaviour
in the European Union**

Valery Badzestau

Final Dissertation submitted to *Instituto Politécnico de Bragança*
to obtain a Master's Degree in Management, Specialisation in Business Management

Supervisors:

Alcina Maria de Almeida Rodrigues Nunes

Manuel José Serra da Fonseca

Bragança, December 2022.



ASSOCIAÇÃO DE POLITÉCNICOS DO NORTE (APNOR)
INSTITUTO POLITÉCNICO DE BRAGANÇA

**The impact of COVID-19 on Consumer Behaviour
in the European Union**

Valery Badzestau

Supervisors:

Alcina Maria de Almeida Rodrigues Nunes

Manuel José Serra da Fonseca

Bragança, December 2022.

Abstract

The Covid-19 outbreak has significantly impacted consumer behaviours. The pandemic and social segregation have altered consumers' routines. The study has investigated how Covid-19 affected consumer behaviour across the European Union. The research focuses on the socioeconomic welfare of the EU population. Its objective is to study the impact of Covid-19 on consumer behaviour in the European Union by analysing key patterns and characteristics of consumer behaviour in the pre-pandemic and pandemic context concerning demographic attributes to identify the primary changes due to Covid-19's economic and social disruption. The analysis is built upon the Consumer Conditions Survey 2014, 2018, and 2020-2021 published by the European Commission. Descriptive statistical methods are used in the study – namely, the horizontal analysis applied to the variables' juxtaposition over the indicated periods, as well as cross-tabulation – to analyse the 2020-2021 survey edition through the demographic attributes introduced in the thesis. Several research discoveries are found. As for the pre-pandemic, the European consumer slowly grew their online purchases of goods and services by 20%, with the East region constituency showing the most illustrious examples. Most EU Member States have greater confidence in making online transactions both within and outside the EU, with an average gain of 20% per country. Most conclusions also indicate an upward trend line for the survey's 2020–2021 edition. As for the pandemic context, most survey participants reported only temporary difficulties, such as a decrease in working hours, the requirement to apply for government assistance, or a lower salary, as opposed to any severe long-term difficulties, such as losing their job permanently or experiencing a payment delay. The research possesses innovative characteristics based on a database specific to a given macro-region and primary survey data acquired by European Institutions.

Keywords: Consumer behaviour, Covid-19, European Union, Consumer Conditions Survey.

Resumo

O surto de Covid-19 teve um impacto significativo no comportamento dos consumidores. A pandemia e a segregação social alteraram as rotinas dos consumidores. O presente estudo investigou como o Covid-19 afetou o comportamento dos consumidores em toda a União Europeia. A pesquisa centrou-se no campo do bem-estar socioeconómico da população da UE. O objetivo geral consistiu em estudar o impacto do Covid-19 no comportamento dos consumidores na União Europeia, analisando os principais padrões e características desse comportamento no contexto pré-pandémico e pandémico visando identificar as principais alterações decorrentes das perturbações económicas e sociais causadas pelo Covid-19. A análise baseou-se no Inquérito sobre as Condições de Consumo de 2014, 2018 e 2020-2021, publicado pela Comissão Europeia. Recorreu-se a uma abordagem baseada em estatística descritiva, nomeadamente a uma análise horizontal aplicada à justaposição das variáveis ao longo dos períodos indicados, bem como a tabulação cruzada para analisar a edição do inquérito de 2020-2021, de acordo com vários atributos demográficos. No contexto pré pandémico verificou-se que o consumidor europeu aumentou as suas compras de bens e serviços em 20%, com a região Leste a apresentar os exemplos mais notórios. A maioria dos Estados-Membros da UE tem maior confiança na realização de transações online, tanto dentro como fora da UE, com um acréscimo médio de 20% por país. As conclusões apontam ainda para uma tendência crescente destes valores na edição 2020-2021 do inquérito. Quanto ao contexto pandémico, a maioria dos participantes no inquérito reportou apenas dificuldades temporárias, tais como uma diminuição do horário de trabalho, a necessidade de solicitar assistência governamental, ou um salário mais baixo, por oposição a quaisquer dificuldades graves a longo prazo, tais como a perda permanente do seu emprego ou um atraso nos pagamentos. Acredita-se que a investigação possui características inovadoras, pois está consubstanciada numa base de dados específica para uma dada macrorregião e em dados primários obtidos pelas instituições europeias.

Palavras-chave: Comportamento dos consumidores, Covid-19, União Europeia, Inquérito sobre as Condições de Consumo.

Acknowledgements

This scientific research would not have been completed without the institution's academic staff's varied support. Considering that, it gives me great pleasure to express my gratitude to the Instituto Politécnico de Bragança for granting me the chance to pursue a Master's degree. The supervisors of the current research, Alcina Maria de Almeida Rodrigues Nunes and Manuel José Serra da Fonseca deserve special recognition; without their expert guidance, this thesis would not be as comprehensive. I would also like to congratulate Paula Odete Fernandes, the director of the Master's Programme in Organisational Management at the Instituto Politécnico de Bragança. Additionally, thanks should be expressed to Dina Macias, the Pro-President of the Instituto Politécnico de Bragança (IPB), and the IPB Academic Service for their support throughout the entire programme.

Best wishes to everyone who helped me stay motivated during this arduous and protracted educational journey.

Abbreviations

CATI – Computer-Assisted Telephone Interviews

CCS – Consumer Conditions Survey

CJRS – Coronavirus Job Retention Program

EU – European Union

EU27 – European Union Member States

GDP – Gross Domestic Product

IMF – International Monetary Fund

ISCED – International Standard Classification of Education

PPP – Paycheck Protection Program

SARS-CoV-2 – Severe Acute Respiratory Syndrome Coronavirus 2

SBA – Small Business Administration

UK – United Kingdom

WHO – World Health Organization

Table of Contents

List of Figures	vi
List of Tables	viii
Introduction.....	1
1. Literature Review	3
1.1. Consumer behaviour overview	3
1.1.1. Consumer behaviour definition	3
1.1.2. Consumer behaviour factors	6
1.1.3. Consumer's decision-making process	9
1.2. Covid-19 background	13
1.2.1. Covid-19's impact on the world economy	14
1.2.2. Covid-19's impact on consumer behaviour.....	16
1.2.3. Covid-19 future implications.....	17
1.3. The EU's response to Covid-19	19
2. Research Methodology	22
2.1. Objective of the study and Research question	22
2.2. Description of Data Collection.....	23
2.2.1. Calculation of Significant Differences	24
2.3. Description of Data Analysis	26
3. Presentation and Analysis of Results (Empirical Analysis)	28
3.1. Descriptive analysis of the CCS (2014-2020).....	28
3.1.1. Wave comparison 2020 to 2014	29
3.1.2. Wave comparison 2020 to 2018	38
3.2. Descriptive analysis of CCS (2020-2021).....	47
Conclusions, Limitations and Future Research Lines.....	52
References	55

List of Figures

Figure 1. Consumer’s Decision-Making Process..... 10

Figure 2. Internal Psychological Processes..... 12

Figure 3. The percentage of consumers who purchased any goods or services via the Internet (%)... 29

Figure 4. The percentage of consumers who purchased any goods or services via the Internet, from a retailer or service provider located in your country (%). 30

Figure 5. The percentage of consumers who purchased any goods or services via the Internet, from a retailer or service provider located in an/other EU country (%). 31

Figure 6. The percentage of consumers who purchased any goods or services via the Internet, from a retailer or service provider located outside the EU (%). 32

Figure 7. The percentage of consumers who purchased any goods or services via the Internet, but they do not know where the retailer or service provider is located (%). 33

Figure 8. The percentage of consumers who did not purchase anything via the Internet (%). 34

Figure 9. The percentage of consumers who purchased any goods or services through channels other than the internet from a retailer or service provider located in an/other EU country (%). 35

Figure 10. The percentage of consumers who strongly agree they feel confident purchasing goods or services via the Internet from retailers or service providers in their country (%). 36

Figure 11. The percentage of consumers who strongly agree that they feel confident purchasing goods or services via the Internet from retailers or service providers in an/other EU country (%). 37

Figure 12. The percentage of consumers who purchased any goods or services via the Internet (%). 38

Figure 13. The percentage of consumers who purchased any goods or services via the Internet, from a retailer or service provider located in their country (%). 39

Figure 14. The percentage of consumers who purchased any goods or services via the Internet, from a retailer or service provider located in an/other EU country (%). 40

Figure 15. The percentage of consumers who purchased any goods or services via the Internet, from a retailer or service provider located outside the EU (%). 41

Figure 16. The percentage of consumers who purchased any goods or services via the Internet, but they do not know where the retailer or service provider is located (%). 42

Figure 17. The percentage of consumers who did not purchase anything via the Internet (%) 43

Figure 18. The percentage of consumers who purchased any goods or services through channels other than the internet from a retailer or service provider located in an/other EU country (%). 44

Figure 19. The percentage of consumers who strongly agree they feel confident purchasing goods or services via the Internet from retailers or service providers in their country (%). 45

Figure 20. The percentage of consumers who strongly agree that they feel confident purchasing goods or services via the Internet from retailers or service providers in an/other EU country (%). 46

List of Tables

Table 1. The Covid-19 impact on the global economy vs the economic crisis of 2008-2009, (%)..... 15

Table 2. The number of interviews completed per country..... 23

Table 3. The composition of the EU regions..... 24

Table 4. EU Member States Abbreviations..... 28

Introduction

Covid-19 has upended humanity in a way not seen recently, simultaneously rendering millions of people unaware of their current and future unpredictability. While the implications of Covid-19 on the loss of life, loss of employment, and loss of livelihood have been well-articulated, the loss of regular social and economic life over an extended period is having long-lasting effects on people (Di Crosta et al., 2021). The self-isolation and social lockdown imposed by Covid-19 have caused psychological and behavioural changes as well as heightened mental stress all over the globe. People are adjusting their lifestyle habits and becoming more attentive to their health due to the continual worry of illness and limited mobility. According to reported preliminary studies, the nature and scope of Covid-19's effects differ depending on a citizen's poverty level, age, place of residence, and other demographic factors (Tran et al., 2020).

People have changed their spending habits due to Covid-19's effects on the economy, society, and psychology. Consumers have engaged in several atypical behaviours throughout the pandemic, which has increased their expenditure on necessities while decreasing discretionary spending. Consumers have also been seen to switch brands and items, replace purchases when inventories are low, and become more concerned with sanitation and health. Increased consumer expenditure on grocery, health and hygiene products has also been reported in market research examining the effects of Covid-19 on consumers. Researchers are investigating consumer behaviour during the pandemic and its causes considering the abovementioned changes (Jackson et al., 2020).

The influence of Covid-19 on customers globally has altered both their demand and behaviour. Various sectors of the economy have been severely impacted by several changes, such as the unprecedented expansion of online shopping over the past year and changes in brand loyalty. Covid-19 quickly accelerated long-term underlying trends in a span of a two-year progression, altering the consumer products industry in real-time. New habits created during that time will supposedly last after the crisis, irreversibly altering consumers' values, shopping patterns, and ways of living and working. By examining the changes that have already been taking place in this situation, one can ponder what consumer goods companies should do right away to prepare for what is coming next (Yeyati & Filippini, 2021).

The consequences mentioned above have triggered the emergence of this research. The objective of the study is to analyse the fundamental shifts closely in the consumer behaviour of a population residing within the borders of the European Union with the idea of tracking and identifying the most common patterns of consumer behaviour change as the main consequences of the economic and social disruption by Covid-19 pandemic.

With the help of the Consumer Conditions Survey, published annually by the European Commission, it was possible to scrutinise the data to track the fluctuations of consumer behaviour regarding the Covid-19 spread and countermeasures imposed by the European governments. The so-called Consumer Scoreboards provide a general summary of how the EU single market functions for consumers. The scoreboards, published since 2008, track consumer results and offer data to guide policy. The Consumer Conditions Scoreboard is mainly based on consumer and retailer attitudes surveys about international trade and consumer protection. It focuses on three consumer-related aspects of national conditions: consumer awareness and trust, compliance and enforcement, and consumer complaints and dispute resolution. In the latest edition of the Consumer Conditions Survey 2020-2021, a study on Covid-19 economic and social consequences was added to the standard report. The data allows an insight into the most common and trend reaction of the EU economy, both in terms of the overall economic space and in the single market, to the Covid-19 repercussions.

Several research methods were employed to characterise, illustrate, and summarise data points constructively based on the specificity of the stated requirements. A horizontal or dynamic analysis was carried out to clearly understand how the data reported in the Consumer Conditions Survey 2014-2020 and 2018-2020 were distributed. The selected descriptive approach made it easier to compare the variables across the different qualities and during the specified time periods. In order to determine if performance measures are improving or degrading, it was possible to see the relative proportions of change in percentage in year-to-year collation. Cross-tabulation was the primary technique for additional analysis later in the project. The primary goal was to examine how the Consumer Conditions Survey for 2020–2021 related to the new demographic descriptive data that were included in the survey. Due to this, it became possible to describe the specifics that present the overall survey respondent group's findings and the results from other survey respondent subgroups. Through the use of cross-tabulations, relationships in the data that might not have been immediately obvious when analysing the entire survey's replies might be examined.

The research is structured into four principal sections. The first outlines the literature review on the development of consumer behaviour as a socio-economic concept with its predispositions, economic fluctuations, demographics, and cultural background. The second section is dedicated to the methodology of the research applied in the empirical part of the study. The third section entails the main calculations and presents the developments of the analysed data. The final fourth section depicts the conclusions of the study as well as the limitations and possible application of the work in the future.

1. Literature Review

1.1. Consumer behaviour overview

Consumer behaviour has always piqued scholars' curiosity in various fields, particularly social science, and this interest has only grown in recent decades. Consumer behaviour literature varies greatly and is heavily influenced by changes in society, economics, and technology. As a result of these developments, the consumer behaviour idea has been transformed, as has the scientific approach to the techniques and methods applied to the investigated topic.

According to Di Crosta et al. (2021), only a thorough and ongoing study of consumer behaviour knowledge that is updated to current economic trends ensures its long-term viability as an essential component of the consumer concept. Therefore, to conduct a thorough analysis and comprehensively understand what consumer behaviour entails today, one must first understand the background and terminology of this multifaceted phenomenon.

1.1.1. Consumer behaviour definition

Consumer behaviour is a complicated and versatile concept directly influenced by various external elements such as social predispositions, economic fluctuations, demographics, and cultural background. Interdisciplinary research is always required when studying consumer behaviour concepts. The study of how having (or not having) things influences our lives and how our belongings affect how we feel about ourselves and each other – our state of being – is included in the field of consumer behaviour, which goes far beyond simply making purchases (Solomon et al., 2016).

The history of consumer behaviour dates back to the middle of the 20th century. According to Dahl et al. (1959), business schools evolved to a more advanced type of research in the early 1950s, which included a theoretical approach and an academic focus. In the following decades, the area that had previously been based on economics began to incorporate theories and approaches from other disciplines, including sociology, psychology, and anthropology. As a result, the procedure evolved into a thorough examination of a single consumer's thoughts, desires, and experiences. From that point on, marketing, as the most critical subject involving consumers, focuses not only on decisions and strategies but also on the decisions, relations, and thoughts of the market's opposite side – its customers.

Macinnis and Folkes (2010) emphasise that in the last 50 years, there has been a surge in academic research on consumers. Consumer choice, attitude and satisfaction judgements, consumption meanings, consumer-brand interactions, and other topics have all benefited from research. Consumer research is a burgeoning area, as indicated by the rise in the number of articles about consumers, the

rise in the number of researchers involved in consumer research, and the wide range of issues investigated by consumer researchers.

Since then, the academic study of consumer behaviour has expanded to include marketing and associated social science methodologies and theories. At the same time, its status as a subfield within a more considerable discipline that includes academics with a wide range of theoretical and methodological backgrounds has sparked questions over its identity. Besides marketing, it has incorporated various concepts and practices from allied social science areas. On top of that, the ever-changing layout of actual consuming behaviour has been considered (Malter et al., 2020).

Consumer behaviour has been a significant subject of market research since the beginning of the 21st century. The postmodern consumption theory has probably come the closest to what the consumer behaviour concept represents today. Jean Baudrillard is considered the most renowned figure of the abovementioned theory. According to Baudrillard (1999), Consumer behaviour cannot be reduced to the possession of a specific product or service. Instead, it becomes a sphere of human self-expression based on developing orientation skills in the modern consumer market and the ability to construct an image of one's "I" with its help. "Consumption is not a passive state of absorption and appropriation, which is opposed to an active state of production to balance, thus, two naive schemes of human behaviour," he argues, proving your claim (Baudrillard, 1999, p. 212). The consumption of products and services, thus, is not simply based on following the cultural patterns accepted in society. It becomes a creative process in the sphere of cognitive, aesthetic reflectivity, in which a person is immersed in interpreting the sign system and intensive circulation of social preferences at all steps of society.

This approach was followed by various scholars and produced some eminent definitions of consumer behaviour. For instance, the pioneer of marketing Philip Kotler (2003, p. 233), defined consumer behaviour as "The field which deals with how individuals, groups and organisations select, buy, use and dispose of goods, services, ideas or experiences that meet their needs and desires." It is important to remember that consumer behaviour encompasses the purchasing and other consumption-related activities of people participating in the exchange process. Bagozzi and Dholakia (1999) defined consumer behaviour as individuals, people, and organisations engaged in acts, processes, and social relationships to consume and experience products, services, and other resources.

Some researchers add to the general definition of consumer behaviour. Melnyk et al. (2021) emphasise that social norms influence the notion. However, it is unclear when social standards are more or less efficient in achieving this goal. This gap is filled by an interdisciplinary meta-analysis that looks at the impact of social norms on consumer behaviour in a variety of contexts involving the purchase, consumption, use, and disposal of products and services, including socially approved (e.g., fruit consumption, donations) and socially disapproved behaviours (e.g., smoking, gambling).

Consumer behaviour encompasses the acts immediately engaged in getting items or services and the decision-making processes that precede and follow these actions. As a result, the advertising message

appears to have a psychological effect that encourages people to want and, as a result, acquire a particular product or service (Wertenbroch et al., 2020).

A completely different approach to consumer behaviour may be found in the explanation that understanding the psychology of consumer behaviour is critical for success in today's marketplaces, which are marked by increased rivalry and globalisation. Consumer responses are entirely dependent on new factors such as the device through which consumers interact and how products and services are sold and presented online, which often differs significantly from traditional offline marketing strategies, come into play. As a result, studies of online consumer behaviour are increasingly turning to other disciplines, including psychological methodologies and concepts (Martinez-Ruiz & Moser, 2019).

Consumer behaviour can also be referred to as the patterns of purchases of products and services for personal consumption and consumer decision-making processes. Companies worldwide need information on consumer behaviour since they are constantly trying to enhance their customer service and, as a result, their sales success (Barinova, 2018). Consumer behaviour research allows businesses to better understand their customers' expectations and moods, allowing them to make improvements to their products and services (Nozdreva, 2018). Consumer preferences reveal information about their objectives, purchasing habits, and more. Consumer power is changing as a result of digital technologies. Consumer expectations are also evolving due to the growth of internet shopping, which is shifting consumer expectations online and at traditional purchase sites (Dolzhenko, 2021).

The most concise definition of consumer behaviour with its attachment to the marketing strategy a company or an enterprise choose was given by Zhao et al. (2021). The authors explain consumer behaviour in groups or organisations in selecting and securing services, products, experiences, or innovations, as well as advancements to fulfil their demands and their effects on the consumer and society. Entrepreneurial competitiveness is ensured by understanding customer situations, causes, and behavioural reasons. New products, attitudes, and psychology for society necessitate a detailed examination of market groups and customer needs. Following that, organisations must design a dependable, successful, and flexible marketing strategy that ensures earnings and sales throughout customer behaviour analysis.

It is always important to mention that consumer behaviour does not remain consistent or identical in each setting: it fluctuates with time and conditions. Consumer behaviour is influenced mainly by several factors and shifts in response to the changes in these elements. Therefore, the factors that influence consumer behaviour directly or indirectly are worth mentioning in the study.

1.1.2. Consumer behaviour factors

When comprehending the complicated nature of consumer behaviour, several factors that influence it directly or indirectly must be considered. Consumer behaviour is significantly impacted by the consumer's psychology and the external environment, as well as its variations within the current market trend. Gajjar (2013) explains the dependence of consumer behaviour on various factors as the consumer attempting to identify the preferred commodities, followed by selecting those that offer more excellent utility. The consumer proceeds with the calculation of the available financial resources, which, in its turn, leads to the judgment on which commodities to choose and consume. Meanwhile, various other social, cultural, personal, and psychological elements influence customer purchases.

Significant developments in the study of consumer behaviour have occurred in recent years, primarily in the decision-making process and, as a result, in the effects of purchase intention (Stankevich, 2017). The significance of comprehending consumer behaviour and the environment in which decisions are made is underscored. Behavioural decision theorists contend that consumers frequently make irrational choices. Purchase intent, also known as buyer intent, refers to a customer's willingness and propensity to purchase a good or service within a specific time frame. Therefore, the evolution of the variables that shape today's consumer behaviour is critical to a solid theoretical foundation and explicit knowledge of the subject.

To start with, one of the classifications was given by Piligrimiene et al. (2020), where the authors divide the key factors into two groups:

- Internal (psychological). As internal factors of consumer decisions, the characteristics inherent in the consumer as an individual are considered: perception, learning, memory, motives, personality and emotions, the lifestyle itself, knowledge, and attitude to purchase;
- External (social) factors represent mainly external impact on the consumer. For example, the actual marketing activities and various influences formed by the social environment, culture, values, social status, reference groups, family, and household.

Internal factors include consumer attitudes toward various issues, felt responsibility for one's actions, and perceived behavioural efficiency. Sustainable consumption and consumer behaviour pattern concerning environmental changes are among the most prominent examples. The need to change behavioural habits and other concerns are frequently included in studies on sustainable consumer behaviour (Geng et al., 2017). Consumers are expected to be less willing to engage in sustainable consumption if they are not concerned about the environment, for instance. Another critical component that contributes to unselfish action is perceived responsibility. A favourable attitude does not always imply that the individual accepts responsibility for the damage of the diverse nature that society does. On the other hand, perceived responsibility is linked to long-term conduct. Perceived behavioural efficiency shows a grasp of how one's actions affect the world around them (Chan et al., 2017).

If consumers believe their actions will significantly influence them, they will be more willing to engage in sustainable consumption.

External factors are crucial to identify from a marketing standpoint since they are easier to control to change consumer behaviour. Conditions for the social environment and the promotion of consumption are among those aspects. Conditions for sustainable consumption, using the same example for the explanation of internal factors, for instance, include green product accessibility, public transportation infrastructure, recycling, and other factors affecting the acquisition, use, and disposal of items or services (Wu et al., 2016). Despite their attitude toward environmental concerns, low conditions may prohibit customers from engaging in sustainable behaviour. The social environment has a significant influence on behaviour. The opinions and behaviours of those in the immediate vicinity frequently serve as a stimulus or a barrier to change. The topic of consumer engagement is intertwined with the incentives offered by businesses and organisations to achieve better levels of participation (Joshi & Rahman, 2017).

Volovskaya and Idrisova (2020) have classified the numerous aspects that influence consumer behaviour into four critical categories from a methodical point of view:

- Psychological – described as the aspects of an individual's mind that drive their behaviours in search of fulfilment, in other words, motivation;
- Cultural – described as a set of ideas, moral values, customs, language, and laws or standards of behaviour;
- Social – described as those concerned with how individuals interact with one another in society;
- Personal – described as the factors that are unique to each customer and significantly impact their purchasing decisions. They vary from person to person, resulting in various perceptions, attitudes, and behaviours toward certain goods and services.

Personality psychology is strongly related to psychological variables influencing the buyer's choice and consumer behaviour in the market. It is common to allude to them while discussing a person's thoughts and beliefs and their perception, assimilation, and motivation. Currently, science has offered evidence that how a person understands and perceives a situation influences human behaviour, including consumer behaviour (Victor et al., 2018).

Kaplan's theory (Kaplan et al., 1974) focuses on the psychological side of consumer behaviour. According to the author, reactions to information about goods and services are mediated by three main factors: (i) personality variables (primarily personality, previous relationships, and opinions); (ii) situational variables (for example, newly introduced marketing incentives, new product variations); (iii) situational interaction (with individuals who form the environment before and during the purchase. Kaplan's above hypothesis is more applicable to consumer behaviour since combining these three factors comprehensively impacts the consumer.

Kumar et al. (2020) emphasise that psychological variables play a significant role in buying decisions, as we frequently encounter people who wonder why they did so after purchasing a product or service. Understanding the mental factors that lead to purchase decisions is critical, which is why consumer psychology is linked to marketing methods (Ding et al., 2020). It is not unusual for the two fields to utilise the same models to describe consumer behaviour and the factors that lead to impulse purchases. Advertising and the messages it transmits attract consumers, affecting their consuming behaviour (Varadarajan, 2020).

Consumer behaviour studies individuals or groups looking for products and services to meet their requirements and buying, using, assessing, and disposing of them (Rajagopal, 2021). It is also essential to investigate the consumer's emotional, mental, and behavioural responses before or after these processes. Consumer behaviour changes can be caused by a variety of causes, including personal, economic, psychological, cultural, and societal aspects. However, some elements impact consumer behaviour more than others in difficult situations, such as a disease outbreak or a natural disaster. Situations that have the potential to disrupt social lives or endanger people's health have arisen (Di Crosta et al., 2021).

Self-justification methods represent one of the psychological elements implicated in consumer behaviour that warrants specific consideration. The cognitive reappraisal process by which people try to alleviate cognitive dissonance caused by a contradiction between beliefs, values, and behaviours is known as self-justification. People frequently strive to rationalise their decisions to escape the feeling of being wrong and keep a positive sense of self (Gelderman et al., 2019). It is well accepted in consumer behaviour studies that customers emphasise positive reasons that support their choices while downplaying counterarguments that call their conduct into question (Hoffman, 2013). Culture has a tremendous impact on consumer behaviour as well. It influences consumer behaviour in purchasing goods and services (Schouten & McAlexander, 1995).

Social variables also influence consumer purchasing behaviour. Reference groups, family, role, and status are all essential social elements. Buyer reference groups, which include family members, friends, social organisations, professional institutions, and trade, significantly impact brand choice. The reference group influences others' worth and behaviour. The majority of purchases have an impact on the reference group's thoughts and beliefs. Family members, who make up the foundation of the original reference group, significantly influence buyer behaviour. Two types of families can form in everyone's life. The first is a family in which a person is born and raised and in which that family directly influences an individual's religion, politics, economics, and education. Children and persons under supervision are the second types of family that impact the buyer's behaviour (Nozdreva, 2018).

Personal factor sets another group of elements that significantly impact consumer behaviour. Gender affiliation and customer age; individual lifestyle; income level and financial circumstances; professional affiliation; life cycle stage; worldview; individuality. The demand for products changes based on the

buyer's age group. Clothing, cuisine, and literature preferences evolve throughout time. Individual requirements and preferences are influenced by their way of living. The buyer's financial capabilities are determined by their professional affiliation and financial standing, which limits the market sectors to which they have access (Volovskaya & Idrisova, 2020).

Personality characteristics are likely to play a role in predicting consumer behaviour as well. According to previous research, the Big Five personality traits can predict consumer behaviour differently (Maison, 2019). Conscientiousness, openness, and emotional stability (neuroticism) were linked to compulsive, impulsive, and utilitarian shopping. However, the relationship between different personality qualities and consumer behaviour is still a mystery (Goldsmith, 2016).

Economic variables primarily influence consumer behaviour. Such overriding topics as personal and family income expectations, economic assets and consumer credit play a vital role in defining the consumer behaviour of an individual. Economic factors like business cycles and inflation also influence consumer behaviour through the economic side of an individual's life (Ramya & Mohamed, 2016).

Finally, the so-called situational elements define the context of a specific decision-making situation. Situational impacts determine how purchasers react, whether they buy a product, buy more products, or buy nothing. Physical variables, social considerations, time factors, the buyer's purchase, and the buyer's mood are among them (Atulkar & Kesari, 2018).

It can be concluded that the consumer's choice results from the interaction of cultural, social, and personal psychological elements. Many of these criteria are beyond the manufacturers' control, but they can help them discover buyers who are more interested in their product. Consumer behaviour is diverse and varied, as evidenced by examining the elements that influence it. Consumer behaviour is influenced by various elements, ranging from the country's economic well-being and personal well-being to psychological attitudes and societal prejudices.

Understanding the complex structure of consumer behaviour and the numerous factors that influence it has practical implications for anticipating the ordinary consumer's reaction in both regular times and times of crisis when consumer behaviour may take on a new form. Especially with the increasing strength of social networks and the mechanisation of the world, the current situation implies that customers' choices are increasingly centred on identity play, obtaining social currency, and self-branding. Changes in decision-making, such as time constraints and limitless options, also substantially impact choices. These developments affect how consumers make decisions, namely their decision-making approach, which will be addressed in the next section.

1.1.3. Consumer's decision-making process

Consumer behaviour trends alter throughout time as well. People anticipate things to do not only that entail interacting with all of their senses but also that offer a variety of new touchpoints that involve whole

new experiences in today's fast-paced world. There is a growing desire for variety, and experiences are expected to provide more. People reject the idea of passive staring since it is no longer enough to immerse the observer in an experience. They look for active participation. The necessity for hyper-efficiency arises as a result of multiplicity. People look for and discover more intelligent and efficient solutions to their challenges (Stankevich, 2017).

Customers have also had a taste of super-personalisation. New technology lets companies read their customers and provide them exactly what they want – often without asking. Advanced technologies shape people's lives and being continuously online has become the norm. The same is true of buying habits: people are shifting to e-commerce, which marketers must consider. Furthermore, today's consumers are concerned about global resources and communities and want to know that the businesses they buy from are also concerned. More businesses are aligning with environmental and social issues in response to the mounting demand for brands to stand for something more than the items they sell (Walsh, 2016).

Behavioural decision theory has been one of the most active areas of academic research in marketing in recent decades. All of this research highlights the importance of understanding consumer behaviour and the context in which decisions are made. Consumers make irrational decisions in a variety of scenarios, according to behavioural decision theorists. Marketers should be aware of how these consequences appear in the marketplace. These and other researchers' work has questioned economic theory predictions and rationality assumptions, resulting in the emergence of the discipline of behavioural economics (Stankevich, 2017).

When purchasing a product or service, consumers go through five steps in the decision-making process, as shown in Figure 1. To successfully drive a consumer toward purchasing a product, connect effectively with consumers, and close the deal, a marketer must grasp the following stages: (i) need recognition, (ii) information search, (iii) evaluation of alternatives, (iv) purchase choice, and (v) post-purchase behaviour. During the decision-making process, the consumer may use all five steps or skip one or more, as each purchasing situation is circumstantial and unique. The sequence is presented in Figure 1.

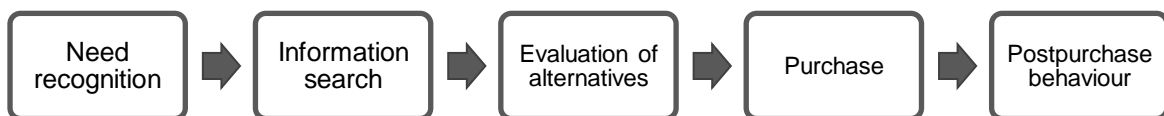


Figure 1. Consumer's Decision-Making Process.

Source: Kotler et al. (2017, p. 155).

Recognising a need is the first step in the customer purchasing decision process, also known as problem recognition. It begins with the most fundamental requirements: oxygen, water, food, and shelter. It could also begin a step ahead of minimum requirements (Kotler & Keller, 2016; Kotler et al., 2017). The company should recognise the needs of its customers and work to meet them (Qazzafi, 2019). Companies can identify a consumer's demand and develop marketing tactics based on this information (Kotler & Keller, 2016; Kotler et al., 2017).

When consumers have identified a need, a desire or a preference, they begin an information search to learn about the various options available to meet that need or desire. It is the so-called information search which is the second stage of the consumer decision-making process. A consumer must look for this information inside and outside to conclude. An internal information search involves retrieving information from memory, such as previous product/service experiences. Asking friends and family about their experiences purchasing a new product is an example of an external information search. They can also use public resources like reviews and blogs to conduct research. Marketing-controlled sources, such as banners, television commercials, and pamphlets, are another external information source (Stankevich, 2017).

When a consumer goes to the market to acquire products or services, they recall some previous thoughts about the product; if the previous experience was positive or sound, the consumer purchases the product, and the quest for knowledge comes to an end. However, if the consumer has had a bad or unfavourable experience in the past, he/she will start looking for information on that product. When a consumer wants to try a new product, he/she also look up product information (Clow & Baack, 2016).

In this scenario, looking for information is a crucial time for consumers. Marketers must notice it and respond with a suitable product description and promotions. In addition, suggestions from friends and family and feedback from other customers will be considered. Furthermore, previous experience with the product or a comparable one, as well as personal experiments conducted while searching (testing products), will impact the process (Willman-Livarinen, 2017).

During this stage, the consumer begins to look for information on the product from various sources. The value and influence of these data sources will differ depending on the product and the consumer. According to research, customers value and respect confidential sources more than commercial ones. Organisations face difficulty determining which information sources are most influential in their target markets to satisfy customers in a competitive climate (Panwar et al., 2019).

A consumer examines the available alternatives in terms of the best deal based on features more relevant to each consumer at the third stage of evaluating alternatives. The most likely aspects a consumer considers during the process are price, quality, brand, product positioning, location, and the post-usage effect (Mishra, 2018).

The final decision on a purchase is the fourth stage of the consumer buying decision-making process; after gathering information from various sources, evaluating it, the customer has decided to buy a product. Consumers buy the brand or product with the highest rating during the evaluation process. The surrounding environment impacts the purchase decision (Stankevich, 2017).

Consumers enter the last stage of the buying process after making a purchase, expressing happiness or dissatisfaction (Wang et al., 2019). The concept of a satisfied or dissatisfied customer is all about the expectations and perceptions of the customer. If the product meets the consumer's expectations that he/she perceive, the customer will be satisfied. Consumers will be dissatisfied if their expectations are not met by their perceived product. (Kotler et al., 2017).

Belch and Belch (2014) went a step further and discussed internal psychological processes relevant to each model level presented in Figure 2.

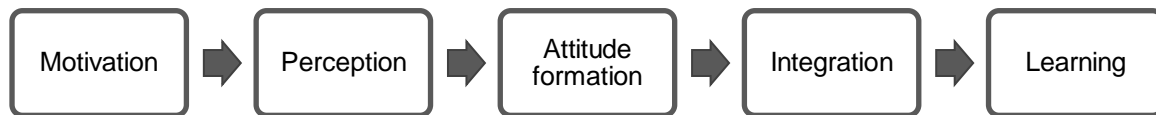


Figure 2. Internal Psychological Processes.

Source: Belch and Belch (2014).

Many consumer purchase decisions are based on a habitual or routine decision-making process. The decision process for many low-cost, regularly purchased products is as simple as recognising the problem, conducting a fast internal search, and making the purchase. External search and alternative evaluation are undertaken with little or no effort by the consumer (Belch & Belch, 2014).

Because the consumer already has preferences and brand loyalty, not all steps apply to repeated items, which is considered an automatic process. As a result, marketers of items with a routine response purchasing procedure must get or keep their brands in the evoked set of consumers and avoid anything that can cause them to be removed. These brands' marketers hope that consumers will follow a predictable decision-making process and continue to buy their items. This entails using reminder advertising, occasional promotions, and prominent shelf placement in retailers to maintain high levels of brand awareness (Panwar et al., 2019).

Identifying consumer behaviour is one of the most important actions in implementing and evaluating the analytical phase of the company's algorithm for marketing operations. Analyses should be conducted and based on research activities aimed at identifying an individual's psychological processes related to the selection of goods and services to meet their needs and desires, as well as the distribution of their available resources (money, time, and effort) into items related to consumption and the customer's

overall perception and thinking over time. The advent of a global catastrophe, such as Covid-19, has the potential to drastically alter and disrupt the entire pattern of consumer behaviour in the market, including shopping reasons and sentiment. In the following section, the impact of Covid-19 on consumer behaviour will be discussed.

1.2. Covid-19 background

Throughout history, infectious diseases have threatened humanity, from the Spanish flu in the early twentieth century to today's coronavirus. Their adverse effects are not restricted to demographics and health systems; they also affect economic growth and development. Since its foundation in 1948, the World Health Organization (WHO) has only proclaimed three pandemics – the highest warning level when a disease has spread over two continents. Like the 1957 Asian Flu and the 1968 Hong Kong Flu, Covid-19 was first reported in December 2019 and declared a pandemic in March 2020. Because of worldwide mobility, the Covid-19 spread at an unprecedented rate at its initial stage (Cho et al., 2021).

The World Health Organization (WHO) labelled the new coronavirus virus outbreak a pandemic on March 12, 2020. By July 2022, Covid-19 has infected over 574 million people in 210 countries, resulting in over 6 million deaths. Countries all across the world have stepped up their public health efforts to combat the outbreak (Novel Coronavirus [2019-nCoV] Situation Reports, 2019; "WHO Director-Opening General's Remarks," 2020). In late January 2020, a unique coronavirus outbreak surged over China's territory, and its expansion was significantly more detrimental than market projections. The unexpected epidemic has significantly impacted people's daily lives and the economy's ability to function smoothly, and market concern has spread (Mohsin et al., 2021).

Most countries have implemented temporary mobility restrictions, social separation, and large-scale gathering cancellations in addition to medical-related measures such as testing and treating individuals. These techniques have proven to help limit the spread of SARS-CoV-2, but they also negatively affect many aspects of citizens' lives. Governments launched support programs all around the world. During the early phases of the pandemic, the Paycheck Protection Program (PPP) in the United States was the most extensive program providing funding to small businesses, with a total volume of \$650 billion (Bhutta et al. 2020). Small firms received loans from the Small Business Administration (SBA) through banks, credit unions, and other financial institutions to keep small businesses open and employees on the payroll (Fairlie & Fossen, 2021).

As for the efforts taken within the European Union borders, taxation support, state-sponsored short-time work compensation programmes, improved guarantee bank measures, loan programmes, as well as an emergency aid that provides one-time lump sum payments to self-employed facing significant revenue declines are some of the measures backed by the German government intended to protect businesses and start-ups affected by the Covid-19 crisis (Block et al., 2020).

In turn, Portugal defied the first exponential fatality projection by implementing mitigation practices for the first day's fatalities. Good practices help public authorities resist and moderate the global epidemic through domestic experiences and coordinated global strategies. Portugal could be viewed as a model for good pandemic crisis management, as an early response to the virus's appearance, rooted in the coordination of critical stakeholders, allowed the virus's spread to be controlled, and the implementation of several mitigation measures yielded favourable results and positive responses from Portuguese citizens (Correia et al., 2020). Data on transmission and its route, incubation period, symptoms, and clinical outcomes, including survival rates, are collected daily worldwide (Corman et al., 2020).

A Covid-19 pandemic is unprecedented, with a tight personal bond of far-reaching consequences. The worldwide economic consequences are still increasing, despite the overall reduction of its general effect. The chronic nature of the health crisis, in particular, is hurting the global economy in ways that go beyond traditional metrics, with potentially long-term and wide-ranging implications. The following pages will address the prospective and actual economic impact of Covid-19.

1.2.1. Covid-19's impact on the world economy

A pandemic can disrupt the economy in a variety of ways. Aside from the influence of mitigation measures, human behavioural changes such as fear-induced aversion to places of work and public gatherings are a major cause of economic damage (Madhav et al., 2017).

In two years of the pandemic, various research projects were undertaken to characterise and shape the in- and post-Covid-19 consequences on the global economy. The paper "Macroeconomic Lockdown and SMEs: The Impact of the Covid-19 Pandemic in Spain" by Pedauga et al. (2021) examines the importance of small businesses in the economy from a macroeconomic perspective. During the Covid-19 epidemic, the authors employ a financial and social accounting matrix to discern direct and indirect effects transferred from micro-businesses to the rest of the economy. Using a structural model for the Spanish economy and recognising the relevance of enterprises of various sizes for the gross domestic product, the authors investigate the sequence of reactions associated with shocks resulting from the Covid-19 shutdown on small businesses (GDP). Small firms, interestingly, "explain" 43% of GDP and two-thirds of the unemployment reduction induced by the Covid-19 pandemic (Belitski et al., 2021).

Multiple research projects have shown that several pandemics harmed inhabitants' family income (Tran et al., 2020). For example, in terms of the impact of Covid-19 on household income, according to a recent survey conducted in late March 2020 with 7,005 participants from G7 countries, 31% said: "Coronavirus has already impacted my household income", while 39% said "Coronavirus has not yet impacted my household income, but I expect it to in the future" (Duffin, 2020). However, the size of each household's economic loss due to SARS-CoV-2 is unknown; consequently, more research is needed to fill this gap (Tran et al., 2020).

Yeyati and Filippini (2021) have presented the so-called “costs” of Covid-19 in 3 stages:

- The macroeconomic impact – more than 90% of the global economy contracted in per capita GDP, the most significant proportion of countries declining at the same time since the Great Depression of 1930-32. The shock spread through three main channels: (i) disruption of global value chains, (ii) limits on international mobility, which impacted economies and activities differently depending on their exposure and readiness, and (iii) a decrease in cross-country remittances;
- The fiscal reaction – the increase in the budget deficit in advanced economies was five times that of developing and middle-income countries and double that of lower-income economies. A large amount of discretionary fiscal support and the drop in output and revenue increased government debt;
- The recovery period – the most current update forecasts a modest rebound in 2021, with a growth rate of +5.8% as the baseline scenario. In the medium run, economies are anticipated to function with excess capacity. Even after the resurgence in 2021, advanced and emerging economies will likely function below the 2019 level, implying weak growth in 2020-2025.

Covid-19 has significantly impacted the world economy more than the Great Recession of 2008-2009. According to the IMF (2020), the globe lost \$9 trillion, equal to Japan's and Germany's combined GDP and six times that of South Korea. Table 1 represents GDP Growth Rate fluctuations in various economic blocks caused by Covid-19 in its pre- and in-pandemic context as well as compares the numbers to the fluctuations in GDP Growth Rate caused by the Economic Crisis of 2008-2009.

Table 1. The Covid-19 impact on the global economy vs the economic crisis of 2008-2009, (%).

Economic Blocks	GDP Growth Rate				
	2008	2009	2019	2020	2021
World	3.0	-0.1	2.9	-3.0	5.8
China	9.7	9.4	6.1	1.2	9.2
Japan	-1.1	-5.4	0.7	-5.2	3.0
Korea	3.0	0.8	2.0	-1.2	3.4
United States	-0.1	-2.5	2.3	-5.9	4.7
ASEAN-5	5.4	2.5	4.8	-0.6	7.8
European Union	0.9	-4.2	1.7	-7.1	4.8
Africa	4.5	3.2	3.2	-1.7	4.6

Source: Author's elaboration based on the IMF report (2020).

As shown in Table 1, the global GDP was only reduced by 0.1% in 2009 owing to the economic crisis, but it was cut by 3% by 2020. Except for China, all the countries listed had negative economic growth, but China's growth was still 4.8% lower than the IMF expected before the outbreak in January 2020. The EU was hit the hardest, with a negative impact of 7.1%, followed by 5.9% in the US and 5.2% in Japan.

The Covid-19 pandemic's economic impact can be divided into short-term and long-term. These adverse shocks have an impact on worldwide supply and demand, as well as global trade levels. This phenomenon is not restricted to today's global economies but also to those that will emerge in the future. While the short-term impact fades with time, the income level and growth gradient suffer long-term detrimental consequences (Cho et al., 2021).

In addition to the costs of greater poverty, and heightened social unrest, the human costs in terms of lives lost will have a long-term impact on global economic growth. According to some estimates, 119 million to 124 million people have fallen into extreme poverty by the beginning of 2021 with 80 million more undernourished than before the pandemic. Furthermore, some estimates suggest that the global trade downturn in 2020 took a particularly harsh economic toll on trade-dependent developing and emerging economies (Jackson et al., 2021).

In the short term, it is critical to help the most vulnerable low-income workers, who are often the most exposed to economic downturns; the Covid-19 pandemic's impact is comparable to the worst recessions. Until recent times, long-term economic policies were required to support growth in the post-pandemic era because of the negative influence on the growth gradient, which would necessitate institutional adjustments in labour rules and corporation taxes. Nonetheless, consumer confidence and business are unlikely to avoid protracted periods of sluggish growth or even downsizing, though, because of the ongoing crisis in Eastern Europe, which is dragging the global economy into another major turn with considerably more significant economic and political ramifications. The future of Covid-19 and its role in the world economy with a specific regard to the current economic crisis caused by the military conflict in Eastern Europe will be addressed in the next section.

1.2.2. Covid-19's impact on consumer behaviour

Consumer purchasing behaviour has been primarily influenced by the Covid-19 outbreak, lockdown, and social separation regulations. Customers had to learn to adjust and acquire new habits. New regulations and processes have been affecting how people shop for and purchase goods and services, and they are expected to continue to do so in the foreseeable future. Consumers have had to cope with blurring the barriers between work, leisure, and education due to technological improvements, changing demographics, and inventive approaches, all of which lead to new habits (Sheth, 2020).

In the early months of the epidemic, a surprising uniformity in consumer expenditure behaviours across countries was noticed. A considerable reallocation of expenditure across categories of goods and services was marked as a regular result. Compared to prior recessions, this level of variability in the severity of the shock per sector of activity is unusual (Cabral et al., 2021). Mohsin et al. (2021) state that novel coronavirus influences business mode and consumption patterns in the long run, but in the short run, the pandemic primarily affects consumption in the first quarter of 2020.

Sheth (2020) outlines eight principle stages of the immediate impact of Covid-19 on consumer behaviour patterns: (i) hoarding – a typical response to dealing with the uncertainty of future product supply for necessities, which results in temporary stockouts and shortages (e.g., disinfecting & cleaning products); (ii) improvisation – which denotes an action that occurs when specific limitations exist, resulting in the production of new consumption methods (e.g., a sidewalk wedding); (iii) pent-up demand – which represents a widespread trend of deferring the acquisition and use of discretionary goods and services (automobiles & home appliances); (iv) taking advantage of digital technologies – such as the adoption of the new remote channels of communication; (v) online shopping at home – which stems from the lockdown policies implemented all over the world; (vi) blurring of work-life boundaries – as a result of insufficient compartmentalisation and limited resources; (vii) reunions with friends and families – which comes from the social distancing policies; (viii) discovery of talent – as a result of flexibility and at home.

By and large, questions remain concerning the virus's long-term relationship with humankind. Although the trajectory is difficult to forecast, the conditions, concepts, and variables that influence it can be predicted for the near future. Some future implications of Covid-19 concerning the global economy will be discussed in the following pages.

1.2.3. Covid-19 future implications

It was reasonable to assume that the global vaccine drive would stop the epidemic and, consequently, the overall recession, until the beginning of 2022. Various academics offered their ideas and strategies for how the global economy might revive in the post-pandemic age. However, in the beginning of 2022, the world experienced a completely different course of action that immediately complicated the global political and economic environment, making it difficult to forecast any potential Covid-19 recovery because of the presence of a more serious threat.

Nonetheless, there were questions about the long-term relationship the virus would form with humans and whether Covid-19 would become an endemic disease. Although the trajectory was difficult to forecast, the conditions, concepts, and variables that influence it could be predicted. Pockets of susceptible individuals and diminishing immunity after infection or vaccination, alterations in the virus through an antigenic drift that reduce protection, and re-entries from zoonotic reservoirs could all contribute to Covid-19's persistence as an endemic virus. An endemic infection of SARS-CoV-2 could result in new epidemics or pandemic patterns due to a lack of efficient surveillance or suitable response (Telenti et al., 2021).

Speaking of the social and health effects, some scholars claimed that only adherence to public health initiatives could be the right way out. However, it was plausible only if society could do so. Aiding individuals in coping with the crisis and strengthening society would boost adherence and ensure that the measures were effective in the long run. As a result, governments could provide additional support in a variety of forms (economic aid, more mental healthcare, social help) (Iftekhhar et al., 2021).

At the initial and mid-stage of Covid-19 advancement, various scholars built their hypotheses as to what repercussions the pandemic could have on the global scale. Fuentes and Moder (2021) outlined that the Covid-19 dilemma had the potential to impact total factor production in several ways. First, Covid-19's influence may temporarily trap resources in unproductive sectors and reallocating productive resources to fast-growing industries would take time. Furthermore, decreasing funding for research and development could stifle innovation, both in the public sector due to consolidation demands and in the private sector due to increased uncertainty. In the aftermath of the Covid-19 crisis, the reshoring of global value chains could stifle innovation and knowledge spill overs across countries. At the same time, the increased usage of digital technology prompted by the Covid-19 problem had the potential to hasten the global economy's digital revolution and thereby boost total factor productivity.

Although the influence of Covid-19 was not limited to future GDP levels, long-term economic policies were required to support growth in the post-pandemic era, necessitating institutional adjustments in labour rules and corporation taxes. Consumer confidence and business would need to be increased to avoid prolonged periods of low growth (Cho et al., 2021). Mohsin et al. (2021) acknowledged this statement and outlined that the critical goal of current response measures was to restore trust and stabilise the fundamentals of economic growth.

According to Pak et al. (2020), in 2020-2021 period, it was still unclear if the crisis would have long-term structural or short-term financial and economic consequences for the global economy. In either event, infectious diseases like Covid-19 have the potential to cause significant economic and financial losses to regional and worldwide economies. Because of solid transportation connectivity, globalisation, and economic interdependence, containing the virus and mitigating the risk of importation have been extraordinarily difficult and costly after the disease has spread to numerous regions. This necessitates international cooperation and worldwide investment in vaccine development and delivery, as well as preventive measures such as real-time surveillance capacity building and the development of contact tracing capabilities at both the national and international levels. Because novel virus outbreaks are unlikely to go away anytime soon, intense worldwide action is essential to save lives and safeguard economic growth.

Pradhan et al. (2018) set another perspective on the future implications of the Covid-19 outbreak by discussing the environmental consequences of the epidemic. According to the authors, aside from having a detrimental influence on the global economy and human life in general, the imposed global lockdown had resulted in dramatic environmental advances. The pandemic outbreak's sound effects included improved air quality, cleaner seas, higher plant growth due to better air and water availability, and flourishing animals. However, no matter how beneficial to the environment, an existential lockdown that prevents people from leaving their houses can never be regarded as the normalcy of life. As a result, it was reasonable to argue that man's primary priority should be on retaining the pandemic's benefits while attempting to escape its vices.

Despite the potential and actual economic and social effects of Covid-19 in the present and the future, the reality has been severely affected by a more severe crisis that originated in the heart of Eastern Europe. Projections on the economic and social effects of Covid-19 have been put on hold because of the ongoing armed conflict. A significant economic threat to the European Region and the entire world community postponed any realistic recovery envisioned following the worldwide vaccination and end-of-lockdowns period. The authors previously listed may have held particular opinions regarding the economic revival of society back in 2020-2021, but at this moment, those opinions appear to be of minor relevance. No matter what issues the society faces, however, the necessity for concerted work to create economies that deliver inclusive economic growth, wealth, and safety for all will continue to be essential. According to Mou (2020), a global crisis always necessitates a global reaction and collaboration and cooperation in areas such as commerce, finance, and macroeconomic policy.

1.3. The EU's response to Covid-19

Governments must operate in a climate of extreme uncertainty in Covid-19. The issue has had a wide range of regional and local effects, with substantial implications for crisis management and policy responses. The EU was not an exception to this tendency.

Covid-19 has been a topic of common European interest since its discovery across the continent due to its borderless nature. Despite this, the epidemic has mainly been treated as a national emergency. Member States responded to cross-border health threats in their own unique, uncoordinated, and at times competing ways, based on their risk analysis frameworks, with little regard for the scientific and management advice provided by the European Union, particularly its dedicated legal framework for action on cross-border health threats (Alemanno, 2020).

The EU's response to Covid-19 took place in a rapidly changing international environment marked by globalisation and a power shift. It raised the issue of the EU's internal and exterior development considering the current Covid-19 epidemic and the enormous changes in the international system (Roloff, 2020).

The European Union's political system, as a multilayer decision-making system capable of acting supranationally, internationally, multilaterally, and transnationally, is well suited to managing an international, global health crisis that has turned into an existential societal, economic, and security crisis (Roloff, 2020). Leadership and solidarity are required to manage the European Union through this existential crisis successfully. This tired appeal for leadership and cooperation is more needed than ever to prevent the European project from collapsing and Europe from reverting to the dark days of nationalism. In many crises since the European Union's founding, leadership and solidarity are more crucial than ever (Kershaw, 2018).

Significant questions concerning the nature of the disease, its transmission, and behavioural reactions – have hampered Covid-19 policymaking, and the understanding of the pandemic's current and previous trajectory has been hampered as a result. Many have questioned the EU's ability to respond to crises in the last decade, beginning with the Eurozone crisis and continuing with the migrant crisis and the Brexit process. Some have been curious to see if the EU can acquire some resilience in the face of crises (Manski, 2020).

However, according to Wolff and Ladi (2020), the EU has demonstrated some adaptation, requiring us to change our analytical methods concerning the 'crisis' governance paradigm that has dominated the research thus far. Despite the crisis' extraordinary scope, the Covid-19 epidemic comes after a series of other crises that have enabled inter-crisis learning and provided the backdrop for policy learning in several areas.

In response to the Covid-19 problem, many governments at all levels have acted fast, using a place-based approach to policy responses, and enacting national and subnational measures:

- From the healthcare point of view, many countries have used territorially distinct methods, such as policies regarding masks or lockdowns;
- From the socio-economic point of view, governments have provided substantial financial support to defend enterprises, households, and vulnerable populations. Many countries, including the European Union, have shifted public funds to crisis priorities, such as health care, SMEs, vulnerable populations, and crisis-affected regions. Nations across the whole EU have taken steps to boost subnational finance, both in terms of spending and revenue, and have eased their fiscal policies;
- From the recovery point of view, many governments have launched major investment recovery packages centred on public investment, which are already much more significant than those adopted in 2008. Three areas are prioritised in these investment recovery packages: (i) improving health systems, (ii) digitisation, and (iii) expediting the transition to a carbon-neutral economy (Zinecker et al., 2021).

Since the emergence of Covid-19, the EU has collaborated with its member states to protect EU citizens' health and well-being. The EU's response to Covid-19 can be divided into four areas: (i) restricting the virus's spread by (ii) ensuring the availability of medical equipment, (ii) stimulating research into treatments and vaccines, and (iv) bolstering jobs, and the economy (European Council, 2021).

The development and delivery of safe and effective Covid-19 vaccines is a long-term solution and a cornerstone of the EU's Covid-19 pandemic response. Since the outbreak, the EU has been channelling research funds to the most promising vaccine candidates and organising a cooperative effort to ensure the development and distribution of a sufficient number of vaccinations to EU countries. The European Medicines Agency has approved five Covid-19 vaccines for use in the EU, and vaccination. By February

2022, the EU had hit a vaccination milestone: over 80% of the EU adult population had received complete Covid-19 vaccination (European Council, 2021).

By and large, Covid-19 is poised to go down in history as a crucial catalyst in advancing EU emergency action (Alemanno, 2020). The Covid-19 epidemic demonstrated early on that cross-national cooperation and the backing of EU institutions' recommendations by crucial nations is critical to the EU's adaptability. The improvements in state aid and economic governance are likely more significant, but they will only be successful in the long run if implemented at the EU and national levels. The EU and its member states are collaborating well compared to previous crises. Politicisation at the highest levels yields favourable results (Wolff & Ladi, 2020).

To summarise the preceding literature review, it can be concluded that various methodologies and definitions of consumer behaviour and the Covid-19 outbreak were presented. The section entails a list of consumer behaviour concepts, definitions, and functions. Concerning the Covid-19 topic and its influence and possible effect on the global healthcare and economic system, different authors, scholars, and experts in the field are cited in the study. An attempt has been made to establish a theoretical basis for further examination of the problem regarding consumer behaviour in relation to Covid-19 across EU borders, focusing on the EU's response to Covid-19 on a broad scale. Further details on the research will be shared in the next section.

2. Research Methodology

2.1. Objective of the study and research question

The research objective is to study the impact of Covid-19 on consumer behaviour in the European Union by analysing key patterns and characteristics of consumer behaviour in the pre-pandemic and pandemic context, regarding the demographic attributes, to identify the primary changes due to Covid-19's economic and social disruption. The correct understanding of the attitudes mentioned earlier, and experiences may aid European institutions in focusing on Covid-19's repercussions at the regional and country levels. The Covid-19 crisis is one of the most traumatic incidents in modern history. Many studies in numerous areas, including consumer behaviour, have been drawn to it because of its far-reaching consequences, necessitating a review and systematisation of the data. European Institutions may use the findings to guide future steps to ensure a steady economic recovery of the EU.

By successfully identifying the best approach to correctly identifying key points and traits in EU residents' consumer behaviour, it will be possible to significantly reduce the unprecedented efforts of national governments and EU institutions needed to support businesses and workers during a crisis. Another essential component of the problem is the nature of a critical circumstance, which forces human behaviour in several irreversible ways. Consumers are the drivers of market competitiveness, growth, and economic integration in every market. Consumer behaviour is changing as a result of economic uncertainty, albeit how much of the change witnessed during the crisis will last remains to be seen.

Once the main objective of the study has been established, the mandates of the study are to be defined:

- The first mandate is to construct a literature review on the issue of Covid-19's impact on consumer behaviour in the EU through different theoretical concepts and models;
- The second mandate of the research lies in the descriptive analysis of the existing data on consumer behaviour, experiences, and attitudes by analysing the Consumer Conditions Survey published by the European Commission in 2014, 2018, and 2020 and juxtaposing the trending lines on key consumer behaviour points between 2014-2020, and 2018-2020;
- The third mandate comes down to the descriptive analysis of the existing data in the Consumer Conditions Survey published by the European Commission in 2020-2021, dedicated explicitly to Covid-19 and its impact on the average European consumer and their behaviour.

This multi-stage analysis is expected to help answer the main research question: what the actual impact of Covid-19 is on consumer behaviour in the European Union.

2.2. Description of data source and data collection

The primary source of the data used in the study has been taken from the Consumer Conditions Survey (2021) published by the Directorate-General for Communication yearly at the official website of the European Commission (<https://ec.europa.eu/>). The survey entails each of the 27 European Union Member States, as well as Iceland, Norway, and the United Kingdom. Consumer Conditions Survey (2021) is based on a poll conducted by the European Commission with the aid of Computer Assisted Telephone Interview (CATI) in all nations, with interviews available in 28 languages – the 24 official European Union languages as well as Luxembourgish, Russian, Icelandic, and Norwegian. The most recent version of the study was conducted between October 21 and December 1, 2021.

The target population of the Consumer Conditions Survey (2021) is all adults aged 18 and over, residents in the countries under the study who have sufficient command of one of the country's national languages to answer the questionnaire. Table 2 demonstrates the number of interviews held in every country that comprises the survey list. Certain exceptions were made for Luxembourg, Malta, Cyprus, and Iceland, where the sample size amounted to 500 respondents. Every other country participant had a sample size of 1 000 inhabitants.

Table 2. The number of interviews completed per country.

Country	Sample size	Country	Sample size
Belgium	1007	Luxembourg	502
Bulgaria	1000	Hungary	1000
Czech Republic	1000	Malta	509
Denmark	1000	Netherlands	1007
Germany	1001	Austria	1008
Estonia	1004	Poland	1008
Ireland	1009	Portugal	1008
Greece	1002	Romania	1002
Spain	1011	Slovenia	1007
France	1007	Slovakia	1000
Croatia	1000	Finland	1012
Italy	1007	Sweden	1001
Cyprus	500	Iceland	502
Latvia	1011	Norway	1001
Lithuania	1000	United Kingdom	1005

Source: Author's elaboration based on Consumer Conditions Survey (2021).

The survey represents data for analysis at the individual country and the European Union regions, with the EU regions defined as North, South, East, and West. The division by region was prepared by the

European Commission for a better navigation in the survey. The composition of the country groups, which cover EU 27 Member States only, is detailed in Table 3.

Table 3. The composition of the EU regions.

EU Region	Group composition
North	Denmark, Finland, Sweden, Estonia, Latvia, Lithuania
South	Cyprus, Greece, Spain, Italy, Malta, Portugal
East	Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovakia, Slovenia
West	Austria, Belgium, France, Germany, Ireland, Luxembourg, Netherlands

Source: Author's elaboration based on Consumer Conditions Survey (2021).

The Consumer Conditions Survey (2021) uses a multi-stage weighting procedure. Single weight factors per interview are calculated consecutively:

- A separate design weight per country to control for unequal selection probabilities of sample units, based on phone type ownership of respondents (mobile-only users, landline-only users, dual users);
- A post-stratification weight, calculated separately per country, to balance out unequal representation of different age and gender groups and phone ownership groups in the unweighted sample so that the weighted sample is representative of these parameters;
- A population calibration weight so that the results of each country, for the results at the country group level (e.g., EU27), are included in the aggregate in the same proportion as their relative population share in that country group.

The data tables published along with the survey findings consist of cross-tabulations for all questions per country and country group and vital sociodemographic categories (at the EU 27 level). They allow for custom analysis (countries or sociodemographic categories) to create a different perspective on the results that can be included for further use in reporting or analysis.

In the Consumer Conditions Survey (2021), different subgroups were compared, which required a test conducted on the data to check if the differences were statistically significant. For all categorical indicators, a 2-sample z-test was used to determine statistical significance (Consumer Conditions Survey, 2021) using the following equation [1].

$$Z = \frac{P1 - P2}{\sqrt{P_{pool} * (1 - P_{pool}) * (\frac{1}{n1} + \frac{1}{n2})}} \quad [1]$$

Where P1 is the proportion of the first sample; P2 the proportion of the second sample; n1 the unweighted sample size of the first sample; n2 the unweighted sample size of the second sample; and Ppool the pooled proportion of samples 1 and 2.

According to Consumer Conditions Survey (2021) the pooled proportion of samples 1 and 2 is calculated as follows in equation [2].

$$\frac{P1 * n1 + P2 * n2}{n1 + n2} \quad [2]$$

Where P1 is the proportion of the first sample; P2 the proportion of the second sample; n1 the unweighted sample size of the first sample; and, n2 the unweighted sample size of the second sample.

The formula is used for the analysis of the difference in categorical indicators between country results (all 30 countries) and the EU27 average. The threshold for statistical significance is put at p=0.05 (95%CI). Moreover, is used for the pairwise analysis of the difference in categorical indicators between sociodemographic groups, separately for all sociodemographic variables (e.g., males vs females). Statistical significance for the sociodemographic analysis is determined at p = 0.05 and p = 0.01.

As for all numerical indicators, a 2-sample t-test is used to determine statistical significance (Consumer Conditions Survey, 2021), using equation [3].

$$t = \frac{m1 - m2}{\sqrt{\left(\frac{std1^2}{n1}\right) + \left(\frac{std2^2}{n2}\right)}} \quad [3]$$

Where **m1** is the average score of the first sample; **m2** the average score of the second sample; **std1** the standard deviation of the first sample; **std2** the standard deviation of the second sample; **n1** the unweighted sample size of the first sample; **n2** the unweighted sample size of the second sample.

The formula is used for the analysis of the difference in numerical indicators between country results (all 30 countries) and the EU27 average. The threshold for statistical significance is put at p=0.05 (95%CI); Additionally, it is used for the analysis of the difference in numerical indicators between one wave and the previous wave (within EU27 and each country). The threshold for statistical significance is put at p=0.05 (95%CI).

2.3. Description of Data Analysis

The analysis presented in the study was elaborated with the help of the Consumer Conditions Surveys published in 2014, 2018, and 2020-2021 accordingly. To effectively analyse the results retrieved from the survey, several variables were chosen for the study. The variables are obtained through a set of answers to various questions asked in the interview to the CCS respondents.

The variables and the respective questions used for studying consumer behaviour are as follows:

- Variable «Online Purchase Source» which is represented through the question «In the past 12 months, have you purchased any goods or services via the Internet?» with six possible answers to the question: Q.1.1 «Yes» 'Total' (%), Q1.2 «Yes, from a retailer or service provider located in your country» (%), Q1.3 «Yes, from a retailer or service provider located in an/other EU country» (%), Q1.4 «Yes, from a retailer or service provider located outside the EU» (%), Q1.5 «Yes, but you do not know where the retailer or service provider is located» (%), Q1.6 «No» (%);
- Variable «Offline Purchase Source» which is represented through the question «In the past 12 months, have you purchased any goods or services through channels other than the internet from a retailer or service provider located in an/other EU country?» with one possible answer Q.2 «Yes» (%);
- Variable «Level of Consumer Confidence in the Local Market» which is represented through the question «How strongly do you agree you feel confident purchasing goods or services via the Internet from retailers or service providers in your country» (%) with one possible answer Q.3 «Agree (strongly agree + agree)»;
- Variable «Level of Consumer Confidence in the Foreign Market» which is represented through the question «How strongly do you agree that you feel confident purchasing goods or services via the Internet from retailers or service providers in an/other EU country?» (%) with one possible answer Q.4 «Agree (strongly agree + agree)».

In the second part of the analysis, where the Consumer Conditions Survey of 2020-2021 is analysed, another vital group of variables is used to showcase the consumer profile. The variables used in the survey are as follows: (i) gender (male, female); (ii) age (18-34, 35-54, 55-64, 65+); (iii) education level (ISCED 0-2, ISCED 3-4, ISCED 5-8); (iv) household composition (Single-person household, Married or cohabiting couple, no children or no children living at home, Single parent, one or more children living at home, Married or cohabiting couple, one or more children living at home); (v) area type (rural, small town, large town); EU Region (North, South, East, West).

Various research tools and methodologies were used, based on the specificity of the designated mandates, to describe, show and summarise data points constructively so that patterns might emerge that fulfil every condition of the data under analysis. A horizontal or dynamic analysis was performed to obtain a solid perspective on the distribution of the data presented in the Consumer Conditions Survey

2014-2020 and 2018-2020. The chosen descriptive method facilitated the variable's juxtaposition over the indicated periods and across various attributes. This allowed seeing the relative proportions of change in percentage in year-to-year collation to gain a picture of whether performance metrics are improving or deteriorating.

At a later stage of the study, cross-tabulation was used as the main tool for further analysis. The main idea was to analyse the Consumer Conditions Survey 2020-2021 concerning the descriptive demographic attributes introduced to the survey for the first time. This lead to the possibility of outlining the specificities that present the results of the entire group of respondents and results from sub-groups of survey respondents. Cross tabulations enabled the research to examine relationships within the data that might not be readily apparent when analysing total survey responses.

3. Presentation and Analysis of Results

3.1. Descriptive analysis of the CCS (2014-2020)

The overall analysis of Covid-19's impact on consumer behaviour in the European Union is divided into three parts: (1) the analysis of the CCS performed by the European Commission in each Member State of the Union from 2014 to 2020 to assess consumer behaviour in the Single Market; (2) the analysis of the CCS performed by the European Commission in each Member State of the Union from 2018 to 2020 to assess consumer behaviour in the Single Market; and (3) the analysis focused on the Covid-19 issue and its impact on consumer behaviour.

The first step of the analysis would be to study the CCS performed by the European Commission from 2014 to 2020 from the point of view of the wave comparison for EU27 and each country for the following periods: 2020-2018, 2020-2014, and 2018-2014. To correctly track and follow the trends developed through the years, the CCS was represented in four questions dedicated to the consumer behaviour part of the study and asked the respondents in 2014, 2018, and 2020. The questions were used as variables designed to test significant differences throughout the study performance.

To facilitate the data observation, the 30 countries represented in the Consumer Conditions Survey were abbreviated for a better visual allocation on the graphs. The country abbreviations are shown in Table 4.

Table 4. EU Member States Abbreviations.

Country	Abbreviation	Country	Abbreviation
Belgium	BE	Luxembourg	LU
Bulgaria	BG	Hungary	HU
Czech Republic	CZ	Malta	MT
Denmark	DK	Netherlands	NL
Germany	DE	Austria	AT
Estonia	EE	Poland	PL
Ireland	IE	Portugal	PT
Greece	EL	Romania	RO
Spain	ES	Slovenia	SI
France	FR	Slovakia	SK
Croatia	HR	Finland	FI
Italy	IT	Sweden	SE
Cyprus	CY	Iceland	IS
Latvia	LV	Norway	NO
Lithuania	LT	United Kingdom	UK

Source: Author's elaboration based on Consumer Conditions Survey (2021).

3.1.1. Wave comparison 2020 to 2014

Starting with the variable «Online Purchase Source» which aims at understanding if the EU consumers have changed their online purchasing habits in terms of buying more online compared 2020 to 2014. It is represented by Question 1, «In the past 12 months, have you purchased any goods or services via the Internet?» with the answer to the question: Q1.1 «Yes» 'Total' (%), which demonstrates that out of the 30 countries under analysis, all 30 have shown a significant difference with an increase in the percentage of the respondents stating in total “Yes” that in the past 12 months they have purchased any goods or services via the Internet. The results are presented in Figure 3.

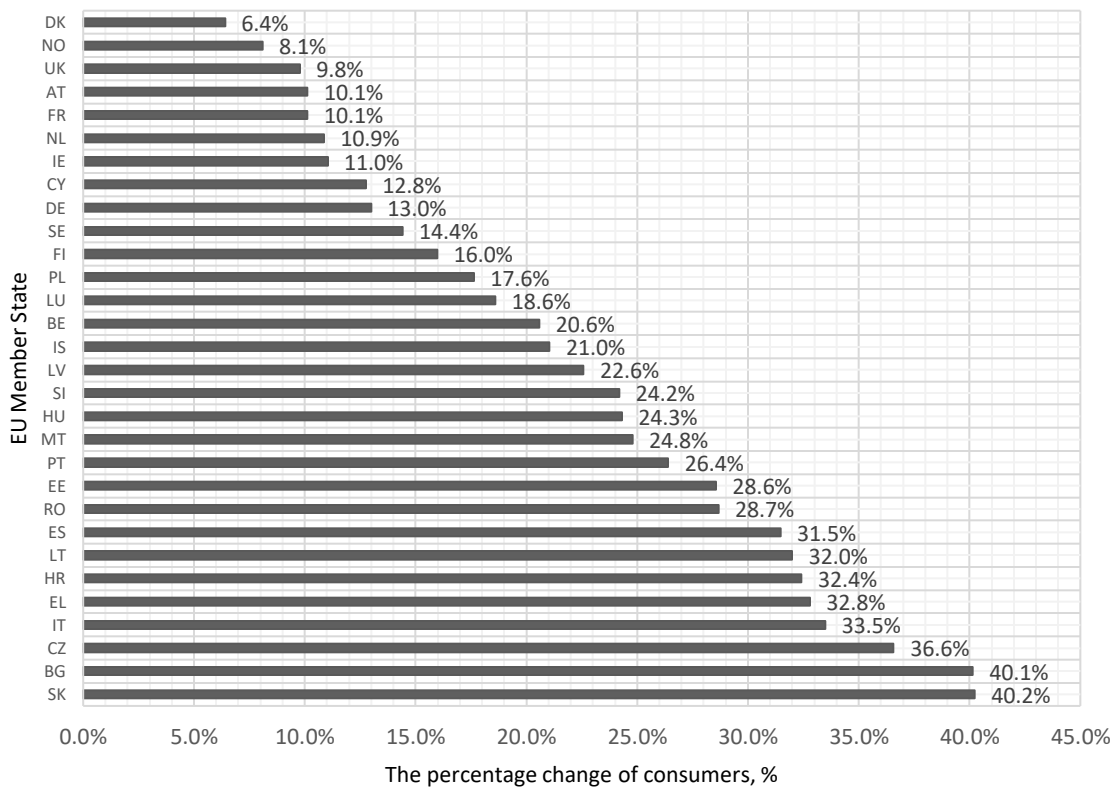


Figure 3. The change in the percentage of consumers who purchased any goods or services via the Internet (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

Among the 30 countries, Slovakia and Bulgaria have shown a considerable increase of 40% in the number of respondents answering the same question in 2014 and 2020: 40,2% and 40,1% of the increase, respectively. Among the countries that have shown a considerable increase of over 30% are the following: the Czech Republic with a 36,6% increase, Italy with a 33,5% increase, Greece with a

32,8% increase, Croatia with 32,4% increase, Lithuania with a 32% increase, and Spain with 31,5% increase. No country has shown a negative decrease trend among the 30 under analysis. Every country has shown a statistically significant difference in the 2020 wave compared to the 2014 wave.

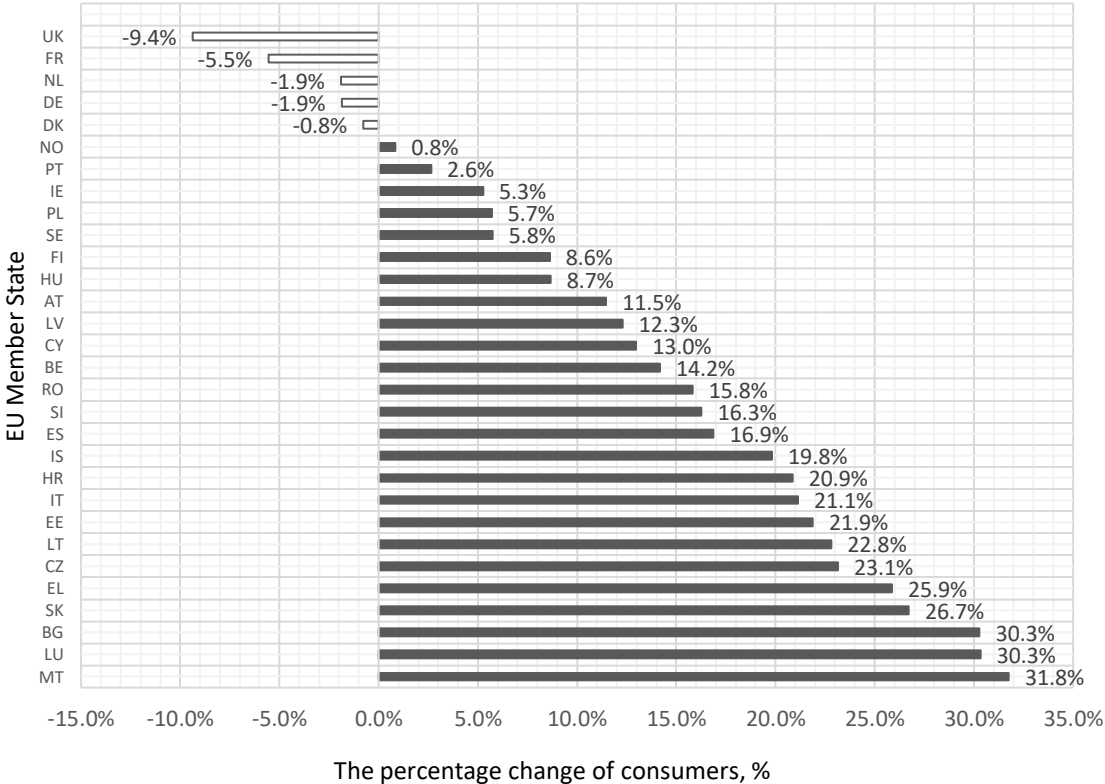


Figure 4. The change in the percentage of consumers who purchased any goods or services via the Internet from a retailer or service provider located in the respondents' country (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

Following up with the variable «Online Purchase Source», represented by Question 1, «In the past 12 months, have you purchased any goods or services via the Internet?» with the answer to the question: Q.1.2 «Yes, from a retailer or service provider located in your country» (%) that aims at understanding the change in the local online purchasing habit, the response shows that out of the 30 countries under analysis 25 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that in the past 12 months they have purchased any goods or services from a retailer or service provider located in their country. Among the 25 countries with a significant difference, 23 countries have shown an increase in the percentage of respondents, among which Malta, Luxembourg and Bulgaria have demonstrated a considerable increase of 31,8%, 30,3% and 30,3%, respectively, the number of the respondents answering to the same question in 2014 and 2020. Two

countries have demonstrated a significant decrease: France and the United Kingdom, respectively, 5,5% and 9,4%. The results are presented in Figure 4.

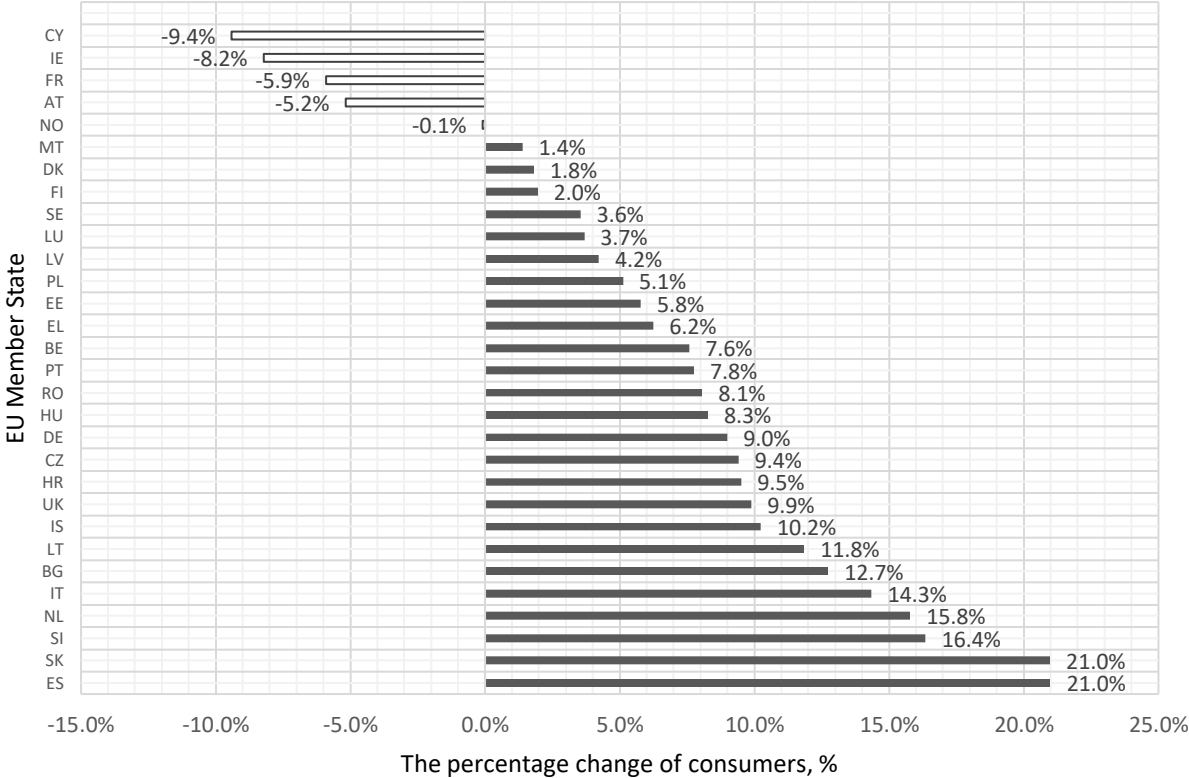


Figure 5. The change in the percentage of consumers who purchased any goods or services via the Internet, from a retailer or service provider located in an/other EU country (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

The variable «Online Purchase Source» is also represented by the answer to the question: Q.1.3 «Yes, from a retailer or service provider located in an/other EU country» (%), which strives to demonstrate the change in foreign online purchasing habit and shows that out of the 30 countries under analysis 24 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that in the past 12 months they have purchased any goods or services from a retailer or service provider located in an/other EU country. Among the 24 countries with a significant difference, 20 countries have shown an increase in the percentage of respondents, among which Spain, Slovakia and Slovenia have demonstrated a considerable increase of 21,0%, 21,0% and 16,4%, respectively, the number of the respondents answering to the same question in 2014 and 2020. Four countries have demonstrated a significant decrease; the leaders are as follows: Cyprus with a 9,4% decrease and Ireland with a respective decrease of 8,2%. The results are presented in Figure 5.

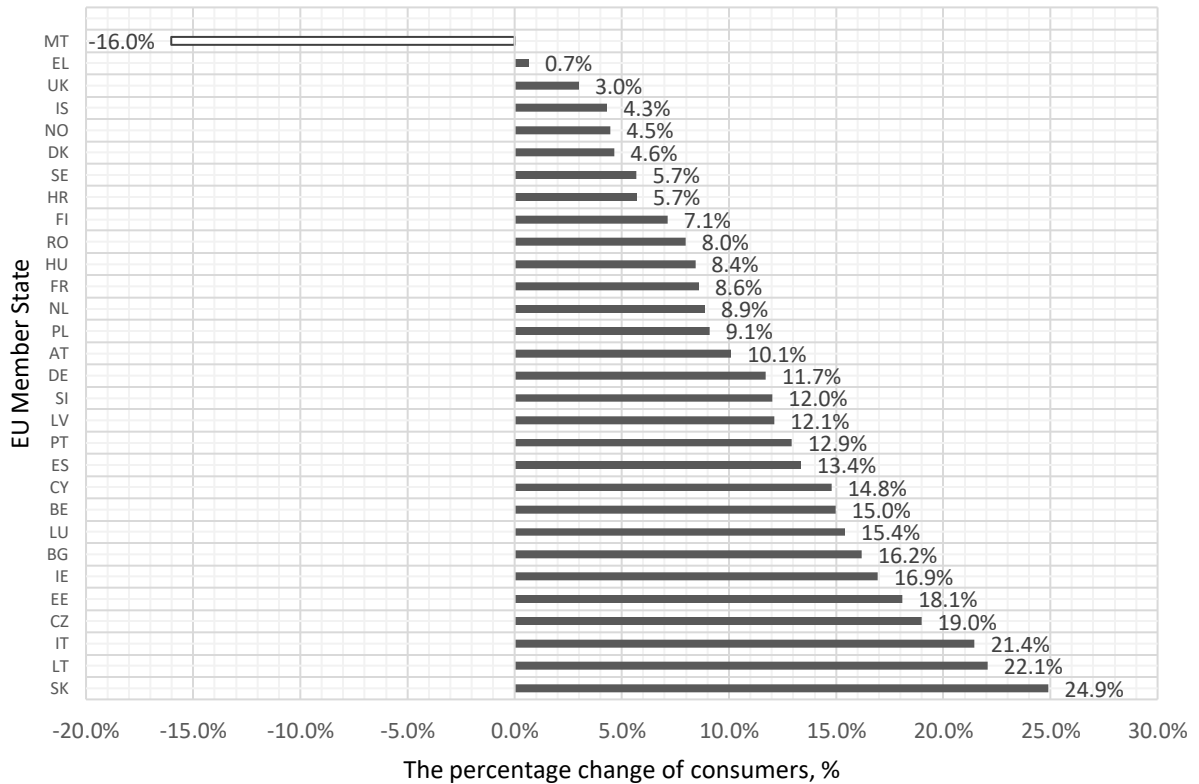


Figure 6. The change in the percentage of consumers who purchased any goods or services via the Internet, from a retailer or service provider located outside the EU (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

Variable «Online Purchase Source» is also represented by the answer to the question: Q.1.4 «Yes, from a retailer or service provider located outside the EU» (%), which defines the geographical region outside of the EU territory and shows that out of the 30 countries under analysis 27 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that in the past 12 months they have purchased any goods or services from a retailer or service provider located outside the EU. Among the 27 countries with a significant difference, 26 countries have shown an increase in the percentage of respondents, among which Slovakia, Lithuania and Italy have demonstrated a considerable increase of 24,9%, 22,1% and 21,4%, respectively in the number of the respondents answering to the same question in 2014 and 2020. One country has demonstrated a significant decrease: Malta, with a 16,0% decrease. The results are presented in Figure 6.

Following up with the variable «Online Purchase Source» is also represented by the answer to the question: Q.1.5 «Yes, but you do not know where the retailer or service provider is located» (%), which clarifies the change in the number of online transactions without prior knowledge of the vendor and

shows that out of the 30 countries under analysis 12 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that in the past 12 months they have purchased any goods or services from a retailer or service provider without knowing of their location. Among the 12 countries with a significant difference, 11 countries have shown an increase in the percentage of respondents, among which Iceland, Croatia, Bulgaria, and Spain have demonstrated a considerable increase of 5,2%, 3,2%, 2,8% and 2,8%, respectively to the number of the respondents answering to the same question in 2014 and 2020. One country has demonstrated a significant decrease: Germany with a 1,5% decrease. The results are presented in Figure 7.

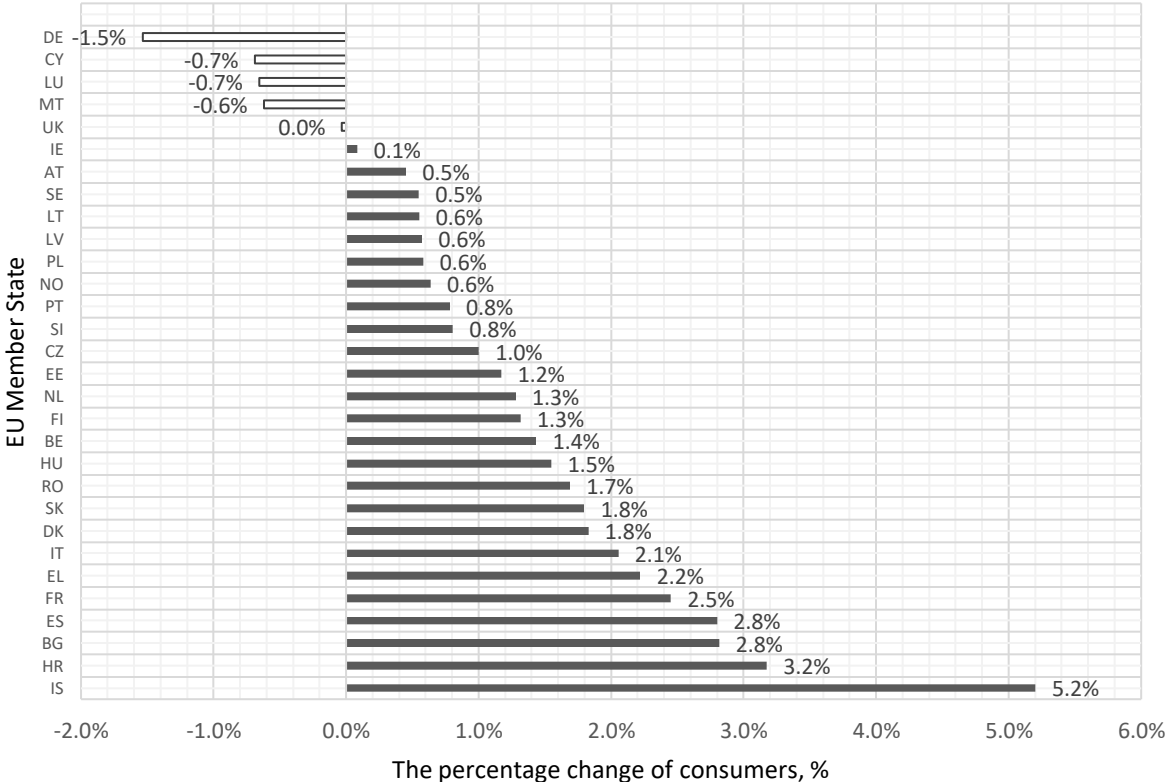


Figure 7. The change in the percentage of consumers who purchased any goods or services via the Internet, but they do not know where the retailer or service provider is located (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

Finally, regarding the variable «Online Purchase Source» and Question 1, «In the past 12 months, have you purchased any goods or services via the Internet?» with the answer to the question: Q.1.6 « No » (%), which aims at showing the decrease of online purchasing and demonstrates that out of the 30 countries under analysis, 21 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “No” that in the past 12 months they have not purchased

any goods or services. Among the 21 countries with a significant difference, 20 countries have shown a decrease in the percentage of respondents, among which Bulgaria, Czech Republic, Spain, and Croatia have demonstrated a considerable decrease of 28,4%, 22,1%, 21,3% and 20,8% respectively to the number of the respondents answering to the same question in 2014 and 2020. One country has demonstrated a significant increase: the United Kingdom, with a 5,2% decrease. The results are presented in Figure 8.

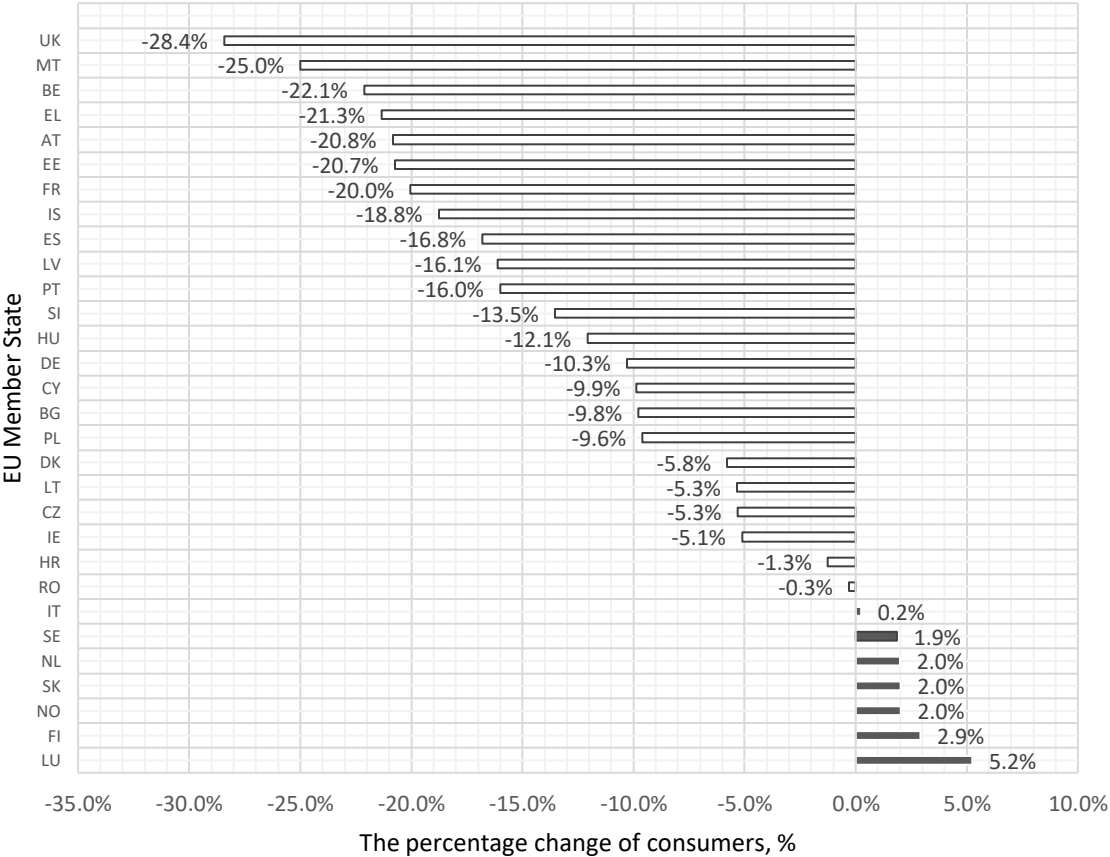


Figure 8. The change in the percentage of consumers who did not purchase anything via the Internet (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

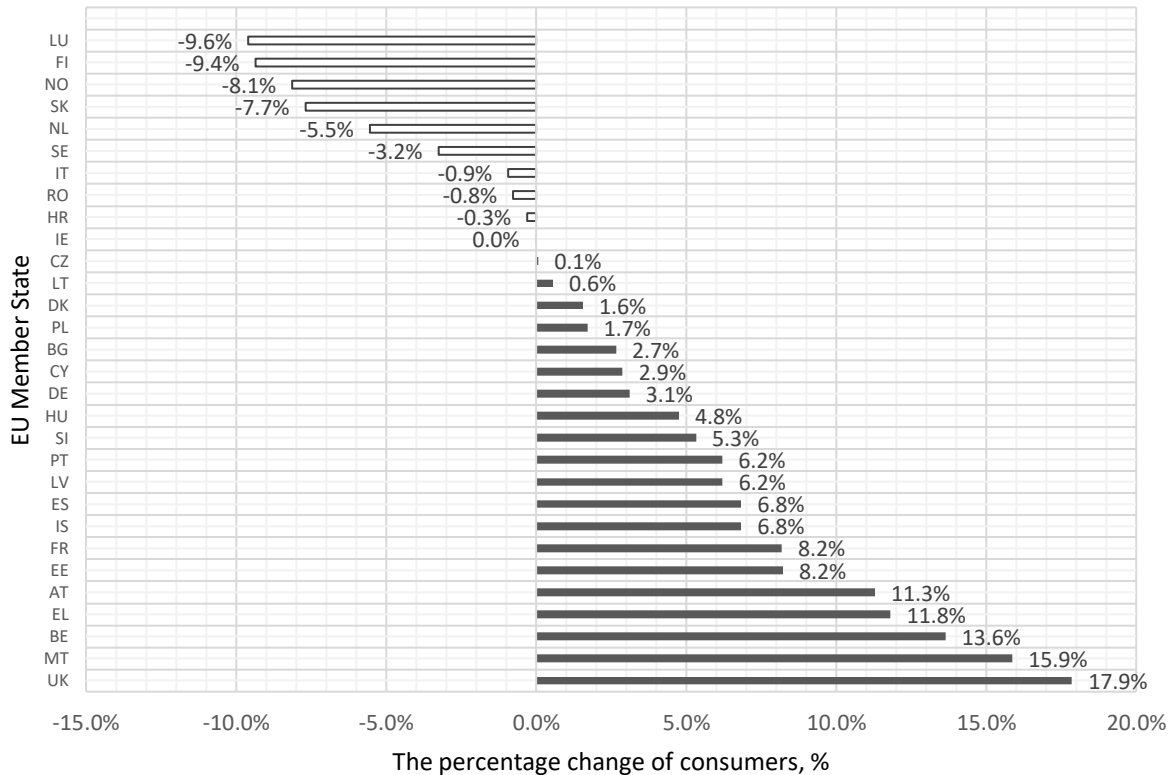


Figure 9. The change in the percentage of consumers who purchased any goods or services through channels other than the internet from a retailer or service provider located in an/other EU country (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

Variable «Offline Purchase Source» which aims at understanding if the EU consumers have changed their offline purchasing habits in terms of buying more offline compared 2020 to 2014 is represented by Question 2, «Q2. In the past 12 months, have you purchased any goods or services through channels other than the internet from a retailer or service provider located in an/other EU country?» with the answer to the question: Q.2 «Yes» (%), which demonstrates that out of out of the 30 countries under analysis 20 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that in the past 12 months they have purchased any goods or services through channels other than the Internet from a retailer or service provider located in an/other EU country. Among the 20 countries with a significant difference, 15 countries have shown an increase in the percentage of respondents, among which the United Kingdom, Malta, and Belgium have demonstrated a considerable increase of 17,9%, 15,9%, and 13,6%, respectively, to the number of the respondents answering to the same question in 2014 and 2020. Five countries have demonstrated a significant decrease: Norway, Luxembourg, Finland, and Slovakia, with a 9,6%, 9,4%, and 8,1% decrease. The results are presented in Figure 9.

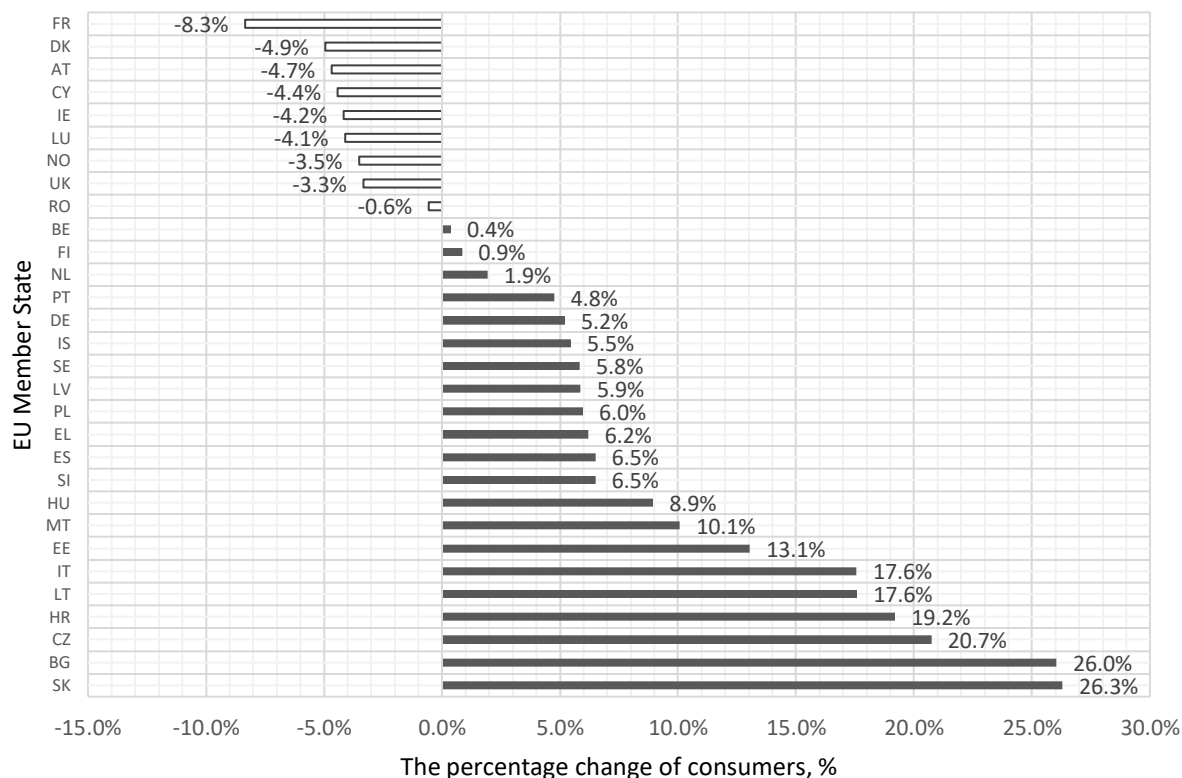


Figure 10. The change in the percentage of consumers who strongly agree they feel confident purchasing goods or services via the Internet from retailers or service providers in the respondents' country (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

As for variable «Level of Consumer Confidence in the Local Market» which aims at demonstrating the change in consumer confidence when purchasing in their domestic market, Question 3, «How strongly do you agree you feel confident purchasing goods or services via the Internet from retailers or service providers in your country» with one possible answer Q.3 «Agree» (strongly agree + agree) (%), shows that out of the 30 countries under analysis 22 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that they strongly agree they feel confident purchasing goods or services via the Internet from retailers or service providers in their country. Among the 22 countries with a significant difference, 19 countries have shown an increase in the percentage of respondents, among which Slovakia, Bulgaria, Czech Republic, and Croatia have demonstrated a considerable increase of 26,3%, 26,0%, 20,7% and 19,2% respectively to the number of the respondents answering to the same question in 2014 and 2020. Three countries have demonstrated a significant decrease: France, Denmark, and Austria, with an 8,3%, 4,9%, and 4,7% decrease. The results are presented in Figure 10.

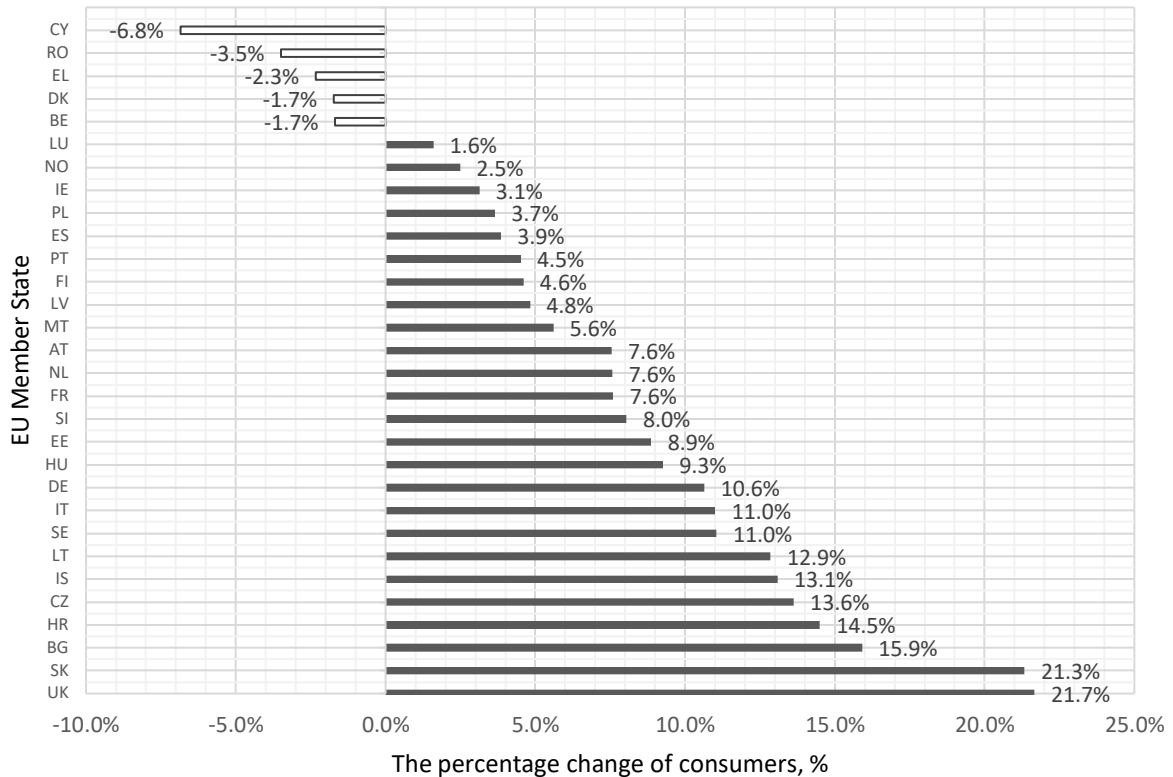


Figure 11. The change in the percentage of consumers who strongly agree that they feel confident purchasing goods or services via the Internet from retailers or providers in an/other EU country (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

As for variable «Level of Consumer Confidence in the Foreign Market» which aims at demonstrating the change in consumer confidence when purchasing in their external market, Question 4, «How strongly do you agree that you feel confident purchasing goods or services via the Internet from retailers or service providers in an/other EU country?» with one possible answer Q.4 «Agree» (strongly agree + agree) (%), shows that out of the 30 countries under analysis 20 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that they strongly agree they feel confident purchasing goods or services via the Internet from retailers or service providers in an/other EU country. Among the 20 countries with a significant difference, 19 countries have shown an increase in the percentage of respondents, among which the United Kingdom, Slovakia, Bulgaria, and Croatia have demonstrated a considerable increase of 21,7%, 21,3%, 15,9% and 14,5% respectively to the number of the respondents answering to the same question in 2014 and 2020. One has demonstrated a significant decrease: Cyprus, with a 6,8% decrease. The results are presented in Figure 11.

3.1.2. Wave comparison 2020 to 2018

Starting with the variable «Online Purchase Source» which aims at understanding if the EU consumers have changed their online purchasing habits in terms of buying more online compared 2020 to 2018. It is represented by Question 1, «In the past 12 months, have you purchased any goods or services via the Internet?» with the answer to the question: Q1.1 «Yes» 'Total' (%), which demonstrates that out of the 30 countries under analysis, 15 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating in total “Yes” that in the past 12 months they have purchased any goods or services via the Internet. Among the 15 countries with a significant difference, seven countries have shown an increase in the percentage of respondents, among Czech Republic, Slovakia, and Bulgaria has demonstrated a considerable increase of 12,9%, 12,7%, 11,3%, respectively in the number of the respondents answering to the same question in 2018 and 2020. Eight countries demonstrated a significant decrease: Hungary, Austria, and the United Kingdom, with 12,0%, 12,0%, and 9,2%, respectively. The results are presented in Figure 12.

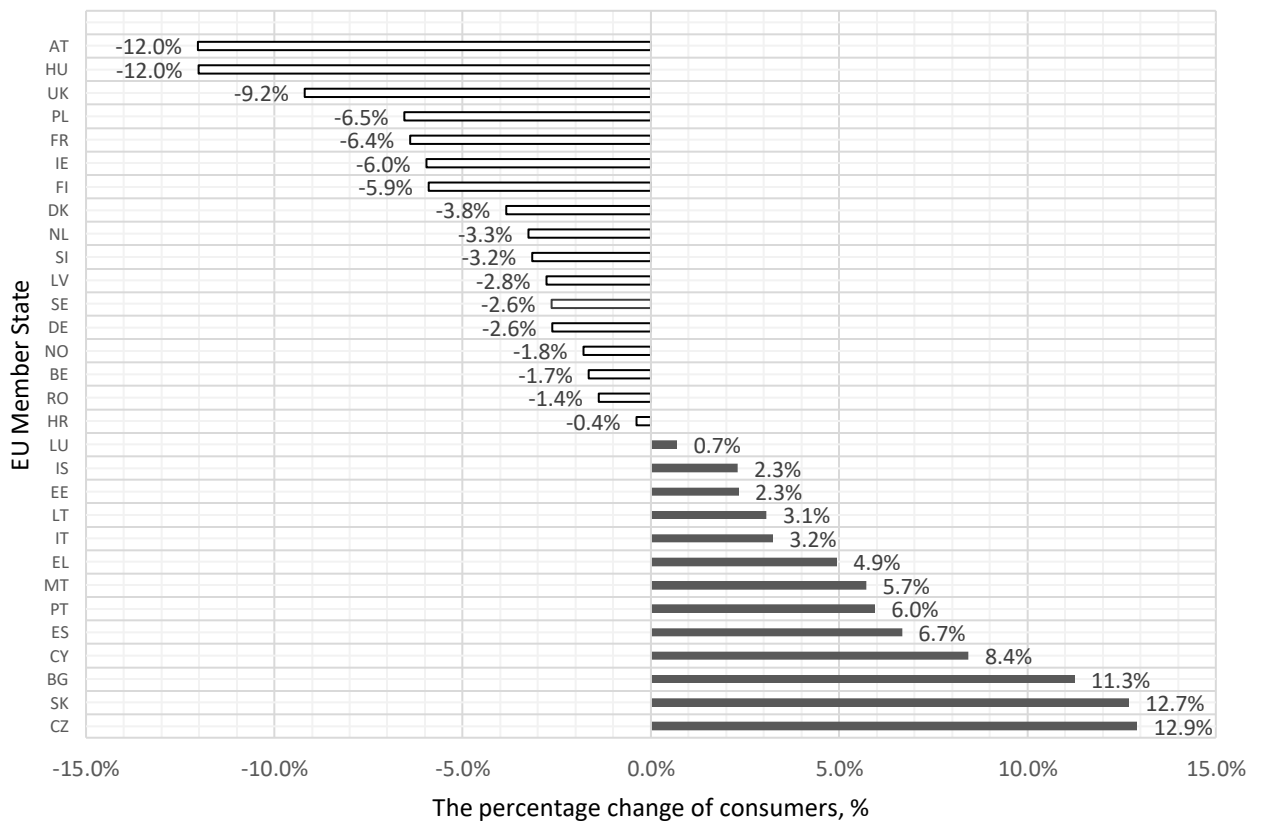


Figure 12. The change in the percentage of consumers who purchased any goods or services via the Internet (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

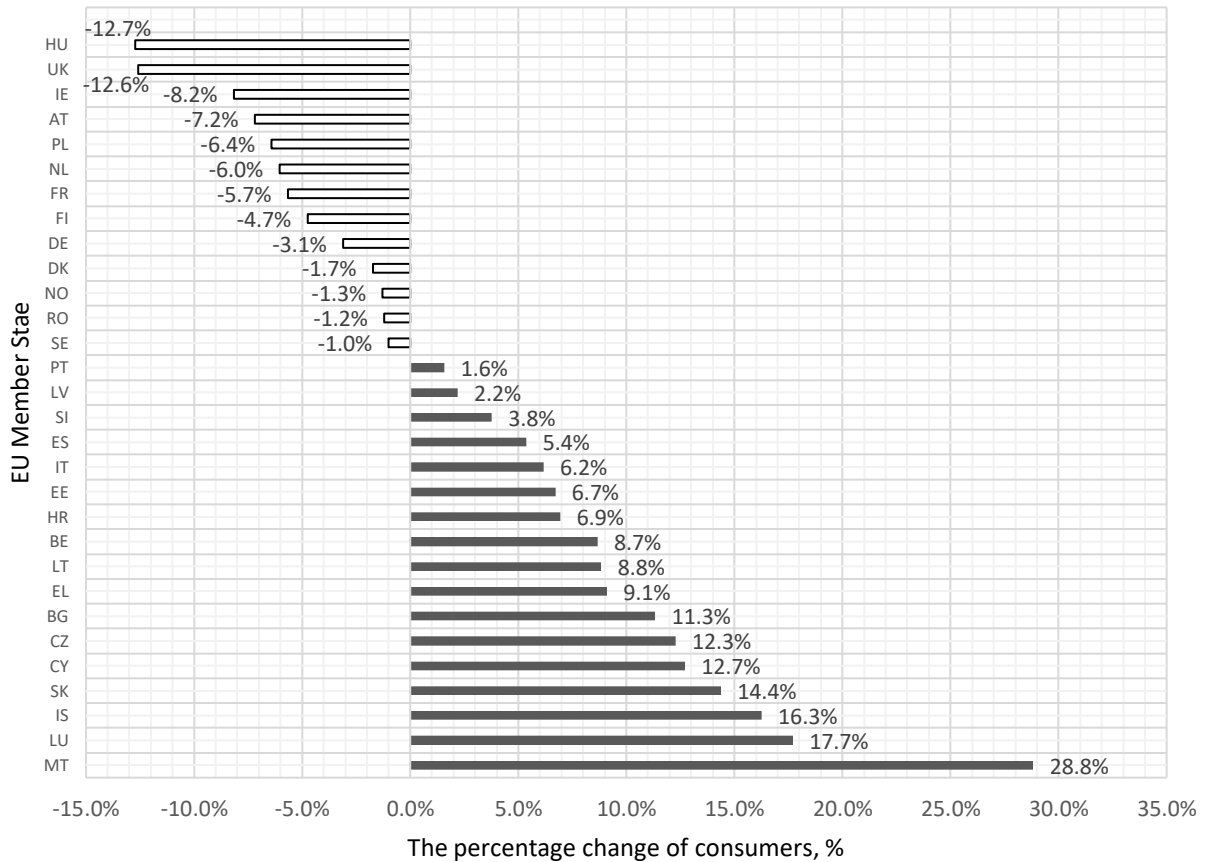


Figure 13. The change in the percentage of consumers who purchased any goods or services via the Internet, from a retailer or service provider located in the respondents' country (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

Following up with the variable «Online Purchase Source», represented by Question 1, «In the past 12 months, have you purchased any goods or services via the Internet?» with the answer to the question: Q.1.2 «Yes, from a retailer or service provider located in your country» (%) that aims at understanding the change in the local online purchasing habit, the response shows that out of the 30 countries under analysis 22 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that in the past 12 months they have purchased any goods or services from a retailer or service provider located in their country. Among the 22 countries with a significant difference, 14 countries have shown an increase in the percentage of respondents, among which Malta, Luxembourg, and Iceland have demonstrated a considerable increase of 28,8%, 17,7% and 16,3%, respectively in the number of the respondents answering to the same question in 2018 and 2020. Eight countries have demonstrated a significant decrease: Hungary, the United Kingdom, and Ireland, with a respective decrease of 12,7%, 12,6% and 8,2%, respectively. The results are presented in Figure 13.

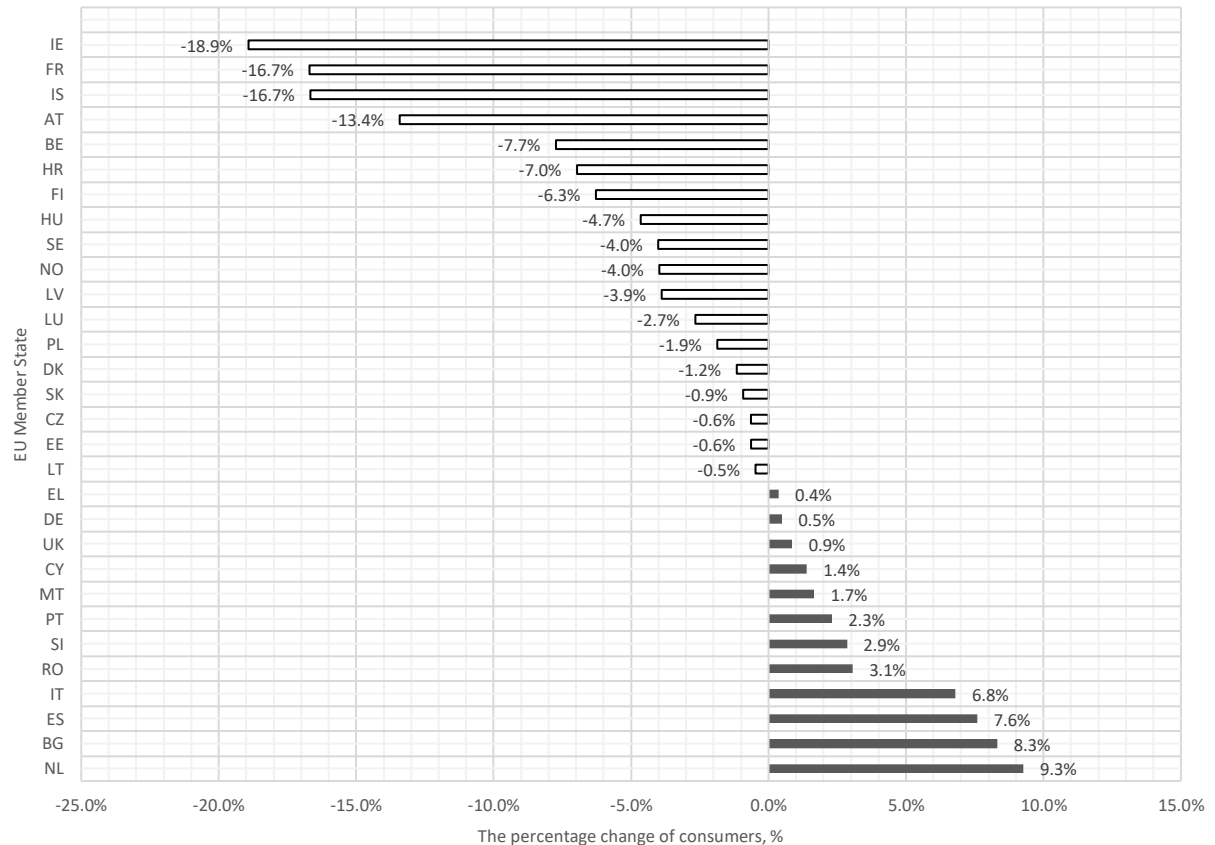


Figure 14. The change in the percentage of consumers who purchased any goods or services via the Internet, from a retailer or service provider located in an/other EU country (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

The variable «Online Purchase Source» is also represented by the answer to the question: Q.1.3 «Yes, from a retailer or service provider located in an/other EU country» (%), which strives to demonstrate the change in foreign online purchasing habit and shows that out of the 30 countries under analysis 13 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that in the past 12 months they have purchased any goods or services from a retailer or service provider located in an/other EU country. Among the 13 countries with a significant difference, five countries have shown an increase in the percentage of respondents, among which the Netherlands, Bulgaria, and Spain have demonstrated a considerable increase of 9,3%, 8,3% and 7,6%, respectively in the number of the respondents answering to the same question in 2018 and 2020. Eight countries have demonstrated a significant decrease, and the leaders are as follows: Ireland with an 18,9% decrease, France with a 16,7% decrease, and Iceland with a respective decrease of 8,2%. The results are presented in Figure 14.

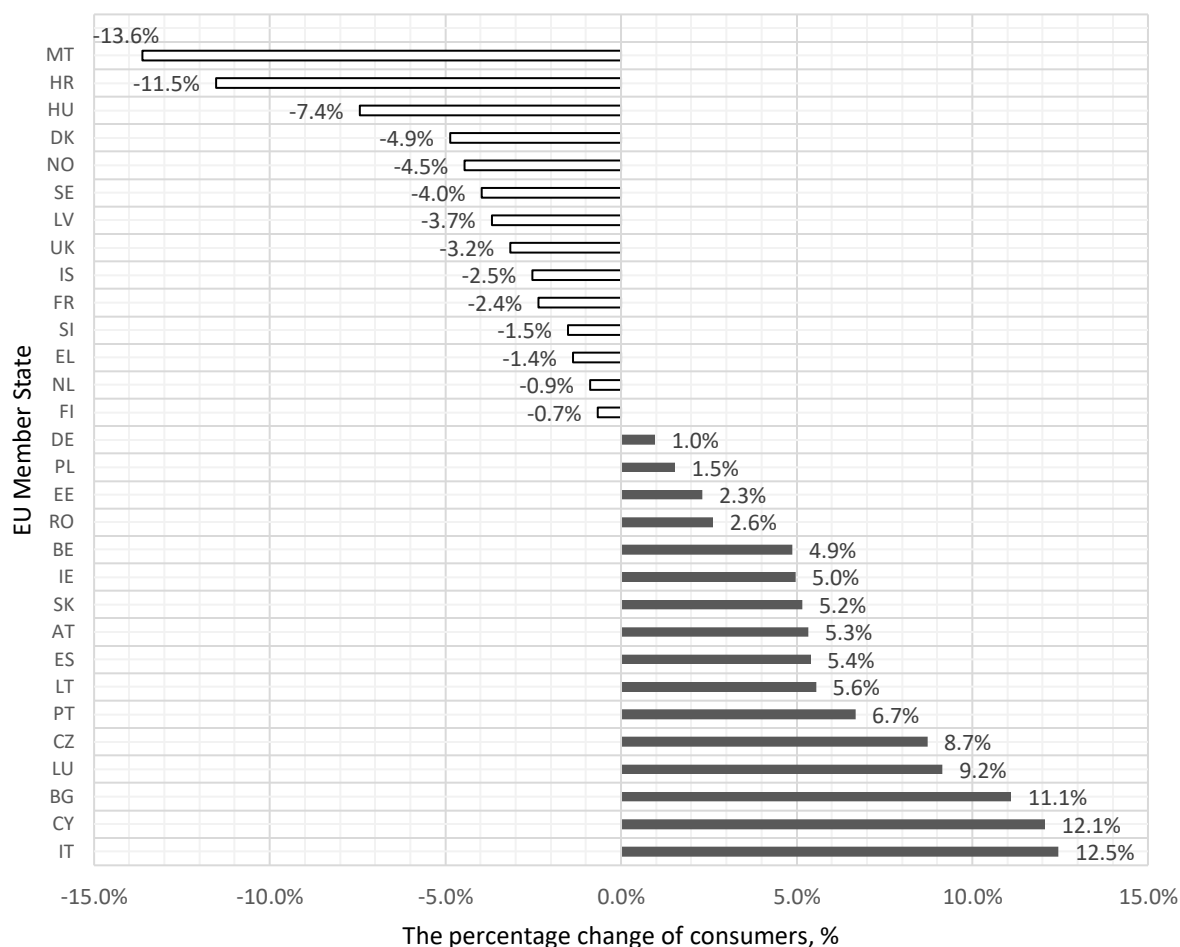


Figure 15. The change in the percentage of consumers who purchased any goods or services via the Internet, from a retailer or service provider located outside the EU (%)

Source: Author's elaboration based on Consumer Conditions Survey (2021).

Variable «Online Purchase Source» is also represented by the answer to the question: Q.1.4 «Yes, from a retailer or service provider located outside the EU» (%), which defines the geographical region outside of the EU territory and shows that out of the 30 countries under analysis 18 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that in the past 12 months they have purchased any goods or services from a retailer or service provider located outside the EU. Among the 18 countries with a significant difference, 12 countries have shown an increase in the percentage of respondents, among which Italy, Cyprus, and Bulgaria have demonstrated a considerable increase of 12,5%, 12,1% and 11,1%, respectively in the number of the respondents answering to the same question in 2018 and 2020. Six countries have demonstrated a significant decrease: Malta with a 13,6% decrease, Croatia with an 11,5% decrease, and Hungary with a 7,4% decrease. The results are presented in Figure 15.

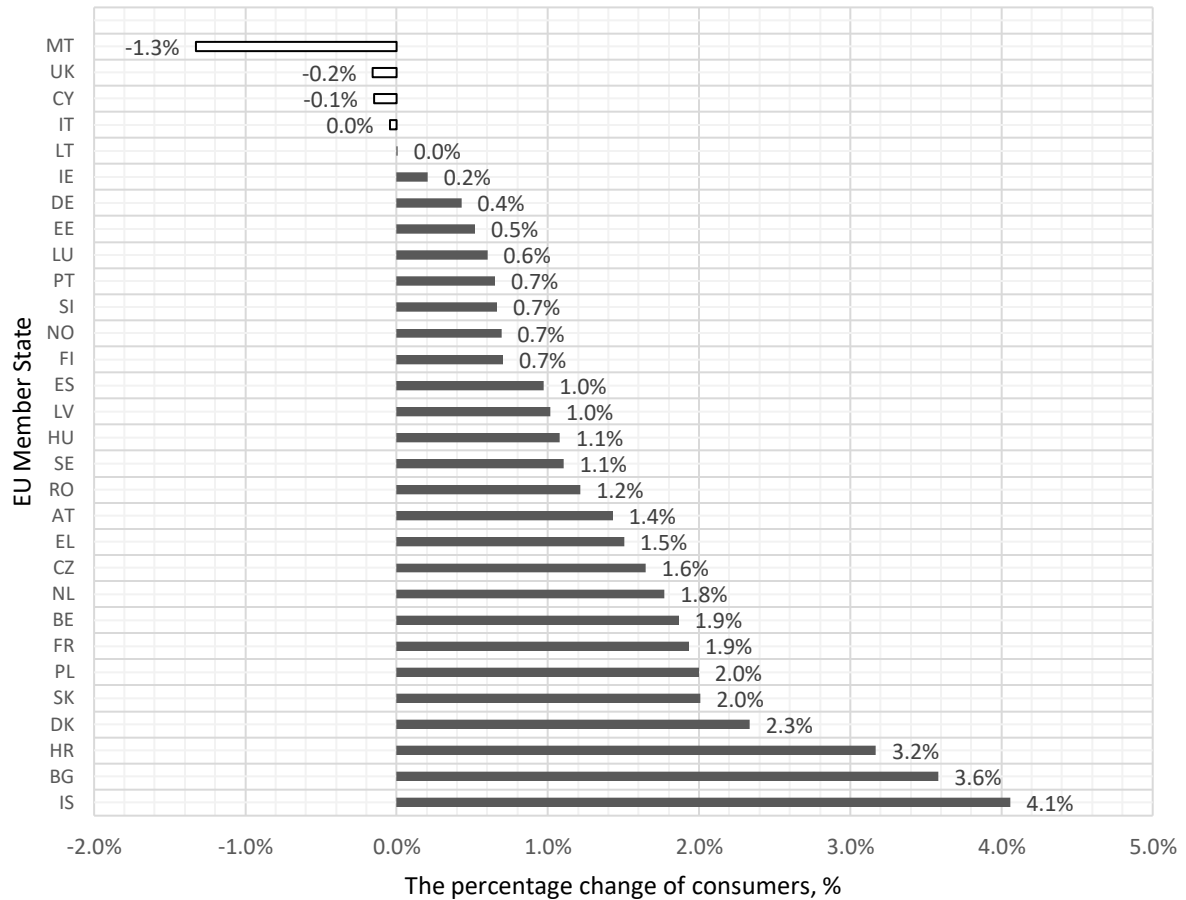


Figure 16. The change in the percentage of consumers who purchased any goods or services via the Internet, but they do not know where the retailer or service provider is located (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

Following up with the variable «Online Purchase Source» is also represented by the answer to the question: Q.1.5 «Yes, but you do not know where the retailer or service provider is located» (%), which clarifies the change in the number of online transactions without prior knowledge of the vendor and shows that out of the 30 countries under analysis 15 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that in the past 12 months they have purchased any goods or services from a retailer or service provider without knowing of their location. Among the 15 countries with a significant difference, 14 countries have shown an increase in the percentage of respondents, among which Iceland, Bulgaria, and Croatia have demonstrated a considerable increase of 4,1%, 3,6%, and 3,2%, respectively in the number of the respondents answering to the same question in 2018 and 2020. One country has demonstrated a significant decrease: Malta, with a 1,3% decrease. The results are presented in Figure 16.

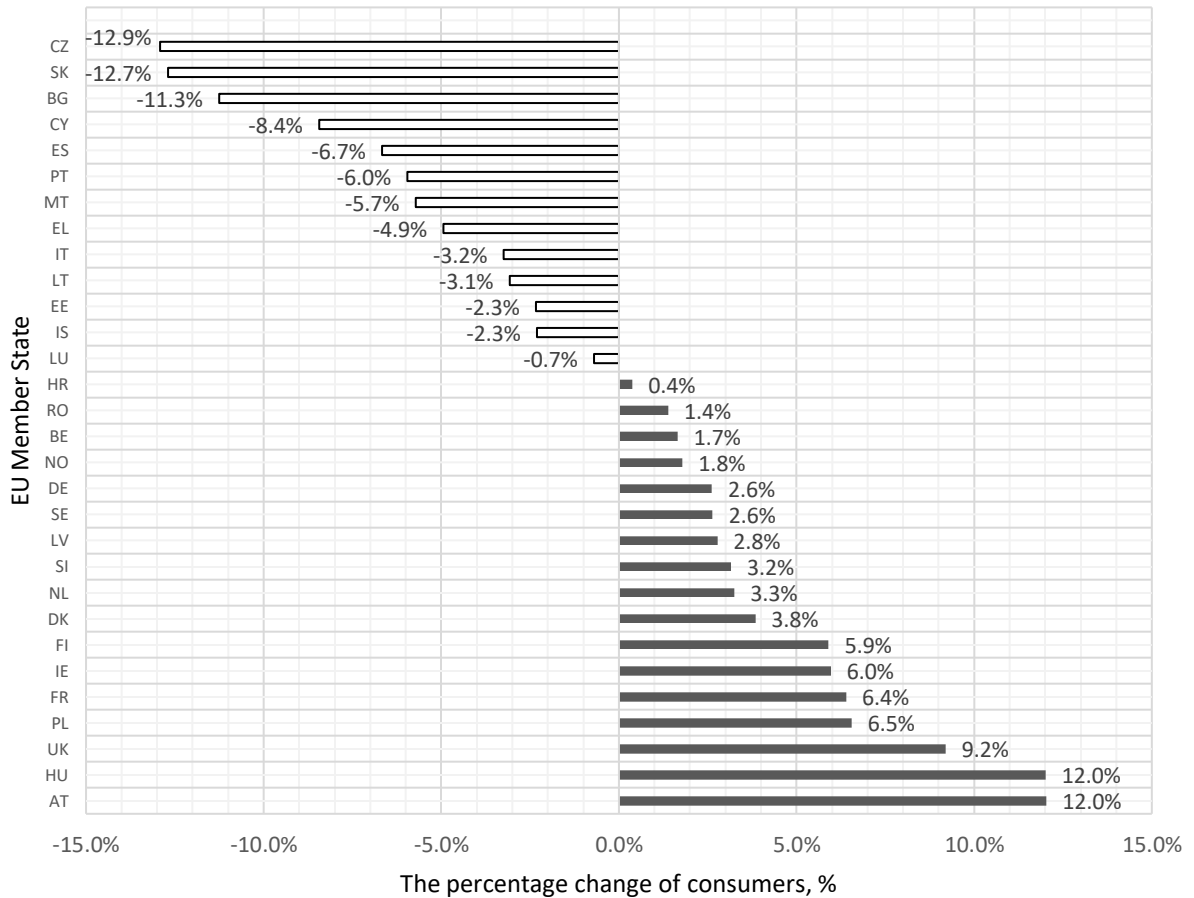


Figure 17. The change in the percentage of consumers who didn't purchase via the Internet (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

Finally, regarding the variable «Online Purchase Source» and Question 1, «In the past 12 months, have you purchased any goods or services via the Internet?» with the answer to the question: Q.1.6 « No » (%), which aims at showing the decrease of online purchasing and demonstrates that out of the 30 countries under analysis, 15 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “No” that in the past 12 months they have not purchased any goods or services. Among the 15 countries with a significant difference, eight countries have shown an increase in the percentage of respondents, among which Hungary, Austria, and the United Kingdom have demonstrated a considerable decrease of 12,0%, 12,0%, and 9,2%, respectively, to the number of the respondents answering to the same question in 2018 and 2020. Seven countries have demonstrated a significant decrease: the Czech Republic, Slovakia, and Bulgaria, with a 12,9%, 12,7%, and 11,3 decrease, respectively. The results are presented in Figure 17.

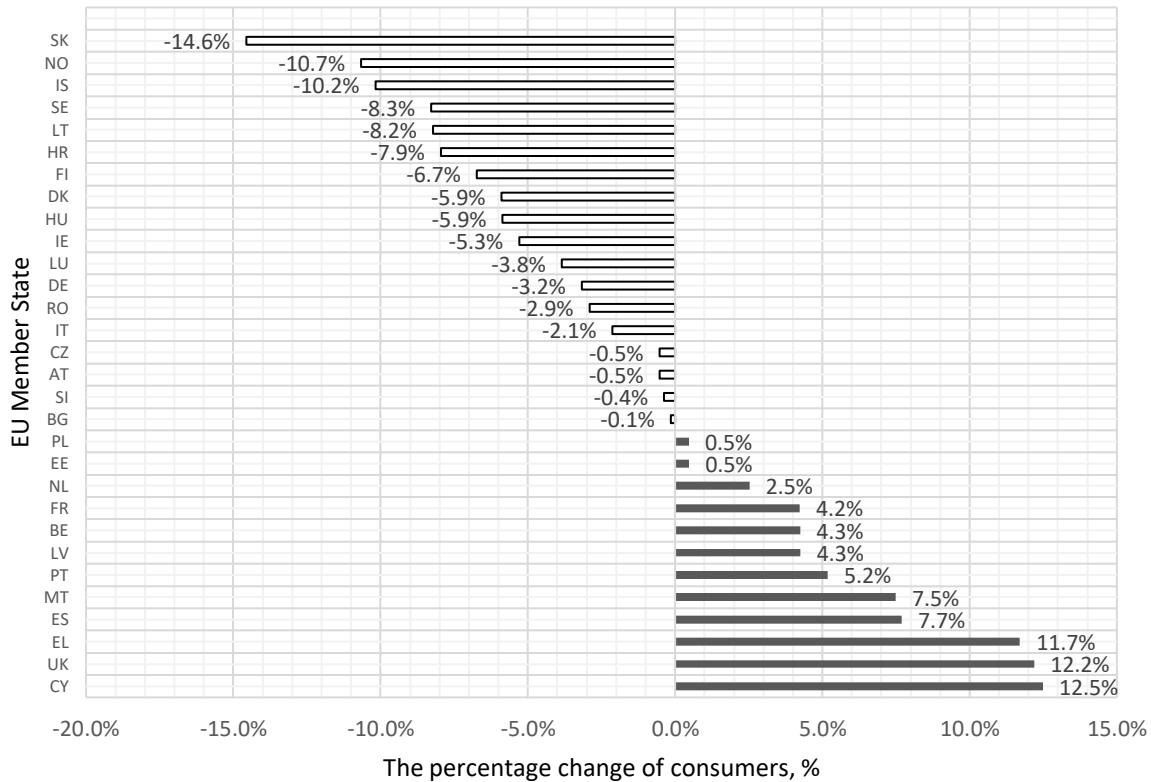


Figure 18. The change in the percentage of consumers who purchased any goods or services through channels other than the internet from a retailer or service provider located in an/other EU country (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

Variable «Offline Purchase Source» which aims at understanding if the EU consumers have changed their offline purchasing habits in terms of buying more offline compared 2020 to 2014 is represented by Question 2, «Q2. In the past 12 months, have you purchased any goods or services through channels other than the internet from a retailer or service provider located in an/other EU country?» with the answer to the question: Q.2 «Yes» (%), which demonstrates that out of the 30 countries under analysis 20 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that in the past 12 months they have purchased any goods or services through channels other than the Internet from a retailer or service provider located in an/other EU country. Among the 20 countries with a significant difference, nine countries have shown an increase in the percentage of respondents, among which Cyprus, the United Kingdom, and Greece have demonstrated a considerable increase of 12,5%, 12,2%, and 11,7%, respectively, to the number of the respondents answering to the same question in 2018 and 2020. Eleven countries have demonstrated a significant decrease: Slovakia, Norway, and Iceland with 14,6%, 10,7%, and 10,2%. The results are presented in Figure 18.

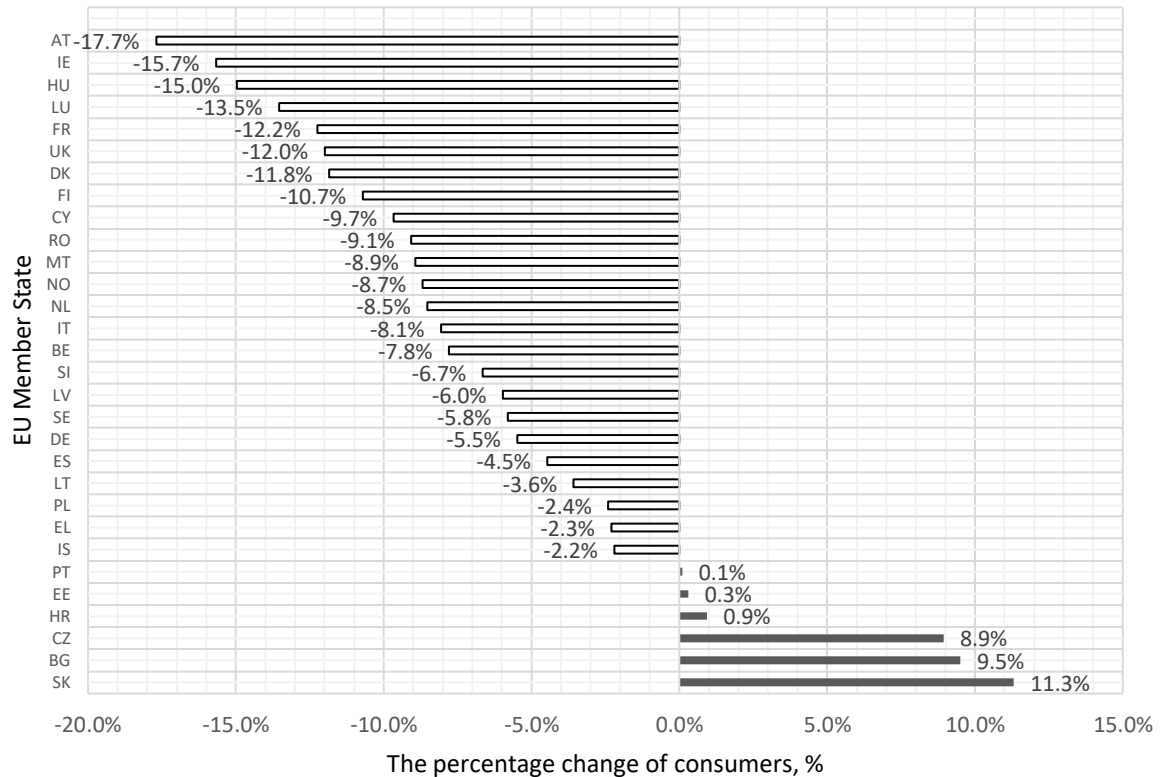


Figure 19. The change in the percentage of consumers who strongly agree they feel confident purchasing goods or services via the Internet from retailers or service providers in the respondents' country (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

As for variable «Level of Consumer Confidence in the Local Market» which aims at demonstrating the change in consumer confidence when purchasing in their domestic market, Question 3, «How strongly do you agree you feel confident purchasing goods or services via the Internet from retailers or service providers in your country» with one possible answer Q.3 «Agree» (strongly agree + agree) (%), shows that out of the 30 countries under analysis 22 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that they strongly agree they feel confident purchasing goods or services via the Internet from retailers or service providers in their country. Among the 22 countries with a significant difference, 20 countries have shown a decrease in the percentage of respondents, among which Austria, Ireland, and Hungary have demonstrated a considerable decrease of 17,7%, 15,7%, and 15,0%, respectively in the number of the respondents answering to the same question in 2018 and 2020. Two countries have demonstrated a significant increase: Bulgaria and Czech Republic with a 9,5% and 8,9% decrease. The results are presented in Figure 19.

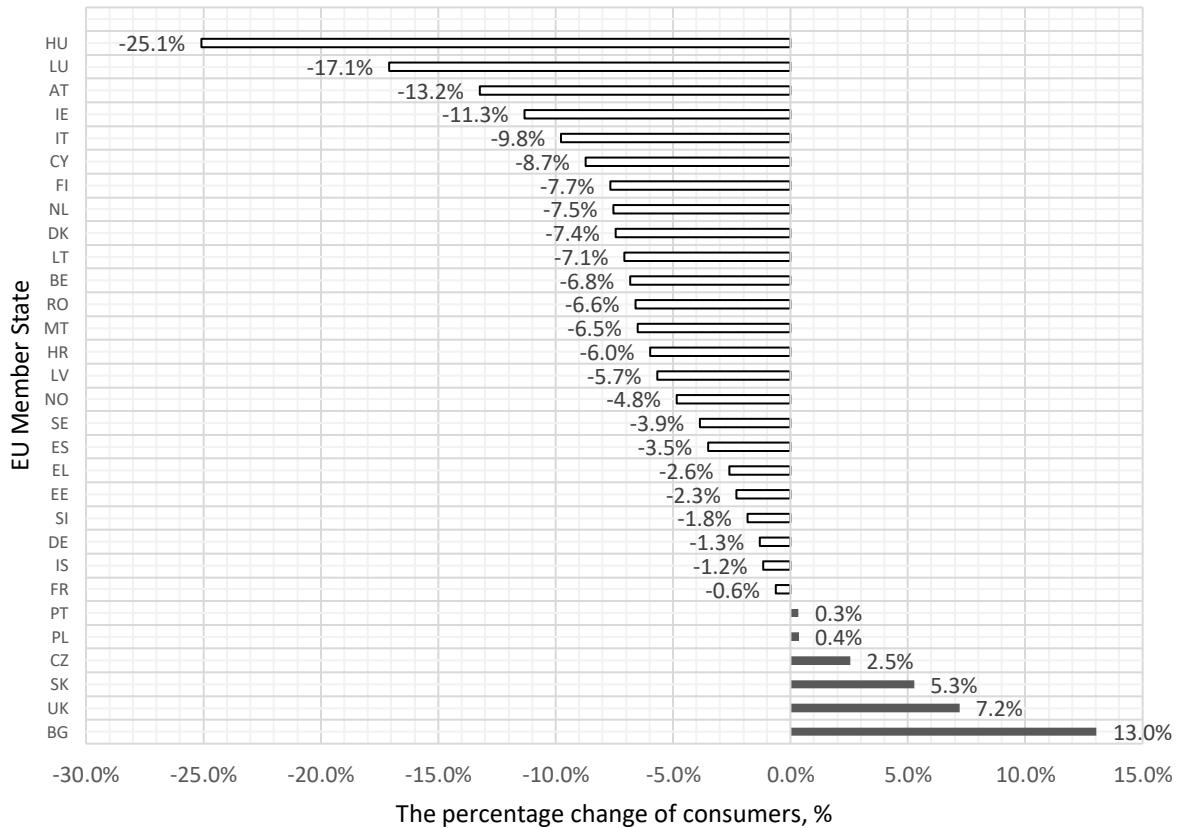


Figure 20. The change in the percentage of consumers who strongly agree that they feel confident purchasing goods or services via the Internet from retailers or providers in an/other EU country (%).

Source: Author's elaboration based on Consumer Conditions Survey (2021).

As for variable «Level of Consumer Confidence in the Foreign Market» which aims at demonstrating the change in consumer confidence when purchasing in their external market, Question 4, «How strongly do you agree that you feel confident purchasing goods or services via the Internet from retailers or service providers in an/other EU country?» with one possible answer Q.4 «Agree» (strongly agree + agree) (%), shows that out of the 30 countries under analysis 19 countries have shown a significant difference with an increase or decrease in the percentage of the respondents stating “Yes” that they strongly agree they feel confident purchasing goods or services via the Internet from retailers or service providers in an/other EU country. Among the 19 countries with a significant difference, 16 countries have shown a decrease in the percentage of respondents, among which Hungary, Luxembourg, and Austria have demonstrated a considerable decrease of 25,1%, 17,1%, and 13,2%, respectively, in the number of the respondents answering to the same question in 2018 and 2020. The tree has demonstrated a significant increase: Bulgaria with a 13,0% increase, the United Kingdom with a 7,2% increase, and Slovakia with a 5,3% increase. The results are presented in Figure 20.

After having analysed the Consumer Conditions Surveys of 2014 and 2018, it is possible to conclude that during this period, the average European consumer steadily increased their online purchases of goods and services by 20% on average. As it has been mentioned in the literature review, consumer behaviour is highly dependent on various factors of internal and external nature. The overall increase in online purchasing which also involves merchants or service providers from outside the European Union, contributing to the rise in international trade for the subject area, speaks clearly of the improving conditions that customers identify as priority: commodities, followed by selecting those that offer more excellent utility. Retailers and service providers whose whereabouts are unknown to the end user have seen a very slight growth – an average of 4% from 2014 to 2020 – which speaks well of customer knowledge and experience. It means that the social and psychological elements that directly influence the consumer's choice, which is developed in the literature review of the research, have also been in the uptrend. The European consumer has developed significantly in terms of all the consumer behaviour factors and learnt well their purchase intention. At the same time, there was an increase in purchases through channels other than the Internet, with an average of 15% coming from EU representatives like the United Kingdom (a former EU member), Cyprus, Belgium, and Greece. Customer's willingness and propensity to purchase a good or service have also shown its effect. Most nations have increased trust in online purchases inside and outside the EU. Such confidence increased by 20%, on average, per nation.

3.2. Descriptive analysis of CCS (2020-2021)

After analysing the CCS for the period 2014-2018-2020, the second step of the research would be to examine the CCS performed by the European Commission in 2020-2021 in each Member State of the Union from the point of view of the impact of Covid-19 in its relation to consumer behaviour. It is important to note that the CCS was represented in the form of the very same two questions dedicated to the consumer behaviour part of the study as well additional five questions related to the Covid-19 issue, its general impact on the respondents and future projections on the pandemic evolution regarding consumer behaviour and experience. As in previous years, the survey questions responses have been used to build up variables designed for descriptive analysis of the consumer.

Another vital remark of the CCS survey of 2020-2021 was the appearance of descriptive attributes used to explain better and demonstrate the consumer profile. The attributes used in the survey are as follows: (i) gender (male, female); (ii) age (18-34, 35-54, 55-64, 65+); (iii) education level (ISCED 0-2, ISCED 3-4, ISCED 5-8); (iv) household composition (Single-person household, Married or cohabiting couple, no children or no children living at home, Single parent, one or more children living at home, Married or cohabiting couple, one or more children living at home); (v) area type (rural, small town, large town); EU Region (North, South, East, West).

Concerning Question 1, «In the past 12 months, have you purchased any goods or services via the Internet?» with the possible answers to question Q1.1 «Yes» 'Total' (%) the male part of the respondents had a higher rate of 73% against 69% on the female side respectively. The detailed answers Q1.2 «Yes, from a retailer or service provider located in your country» (%), Q1.3 «Yes, from a retailer or service provider located in an/other EU country» (%), Q1.4 «Yes, from a retailer or service provider located outside the EU» (%), Q1.5 «Yes, but you do not know where the retailer or service provider is located» (%), and Q1.6 «No» (%) received the following distribution: Q1.2 had a tremendous response rate from both male and female side (64,7% and 61% respectively) followed by Q1.3, Q1.6, and Q1.4. Question 1.5 «Yes, but you do not know where the retailer or service provider is located» (%) had a minuscule percentage of response: only 3,4% and 3,0%. Q1.2 «Yes, from a retailer or service provider located in your country» was the most common response for all other attributes in the evaluation table: age, ISCED, household composition, area type, and the EU region. The overall prevailing profile of an EU consumer who purchased any goods or services via the Internet in the past 12 months is as follows: a man of the age range 18-34, with tertiary education level, married or cohabiting couple with one or more children at home, living in a large town in the North EU region. Based on the results presented above, it is possible to conclude that most of the respondents purchase products or services located in the country of their residence or another EU country and our primarily aware of the provider's location.

In regard to Question 2, «In the past 12 months, have you purchased any goods or services through channels other than the internet from a retailer or service provider located in an/other EU country?» with the answer to the question: «Yes» (%), the overall response rate was relatively low. Male and female respondents generally kept the margin of 16,4% and 13,3%, respectively. The same concerns the rest of the attributes: age, ISCED, household composition, area type, and the EU region. a male of the age range 35-54, with tertiary education level, married or cohabiting couple, one or more children living at home, living in a large town in the West EU region. Based on the results presented above, it is possible to conclude that most respondents purchase products online and rarely use any other channels other than the Internet.

As to the Covid-19 related questions, about Question 3, « Which of the following have you experienced or are you currently experiencing due to the coronavirus (i.e., Covid-19) health crisis?» (%), with the possible answers to the question: «Lost your job temporarily» (%), «Lost your job permanently» (%), «Delaying your retirement» (%), «Choosing to work fewer hours» (%), «Your working hours have been cut» (%), «Applying for or received government assistance» (%), «Your salary has been reduced, or you have lost wages» (%), and «You had to postpone paying at least one bill» (%), both male and female respondents answered that they got impacted mostly in «Your working hours have been cut» (%), «Applying for or received government assistance» (%), and «Your salary has been reduced, or you have lost wages» (%): 15,10%, 11,10%, and 15,60% for male, 13,90%, 9,70%, and 13,40% for female respectively. Some interesting points were noticed among the rest of the attributes. In the age attribute, "65+" had the most negligible impact of all ages in all the possible answers: the response percentage

did not overcome 5,5% to any of the suggested answers stating that category "65+" faced minimum obstacles during the pandemic. In the Education attribute, every level of ISCED was influenced by the reduction of working hours: 11,6% for ISCED 0-2, 18,0% for ISCED 3-4, and 13,1% for ISCED 5-8, which speaks about massive corporate layoffs that were not dictated by the education level, although the tertiary education representatives had a slightly lower percentage of the impact. The same concerns household composition, area type, and the EU region – more or less equal distribution of the impact over various family and geographic compositions. As for the least popular effects of Covid-19, «Lost your job permanently» (%) and «Delaying your retirement» (%) were the ones that received the lowest amount of feedback across all attributes: only 3,20% and 1,70% for male, and 2,70% and 1,90% for the female part. Dwelling on the results presented above, it is possible to conclude that the majority of the respondents faced only temporary difficulties, such as the cut in working hours, the need to apply for government assistance or reduced salary, and at the same time, did not face any severe long-term difficulties, such as losing a job permanently or suffering from a payment delay.

In regard to Question 4, «Thinking ahead to one month from now, how concerned are you that you will be able to pay your bills?» (%), with the possible answers to the question: «Concerned» 'Total' (%), «Extremely concerned» (%), «Very concerned» (%), «Somewhat concerned» (%), both male and female had a similar ratio of respondents who expressed specific concern towards the topic: 36,1% and 39,5% respectively. However, most of those who expressed concern showed only a «Somewhat concerned» (%) level with 20,2% and 22,7% as the gender distribution. Only 6,8% and 7,0% respectively got highly concerned with the question in demand. The same pattern belongs to the rest of the attributes. In the age attribute, "65+" had a minor percentage of the expressed concern, whereas "18-34" and "35-54" were represented with the most considerable percentage of the concerned respondents. In the Education attribute, the level of genuine concern drops with the increase of the ISCED level declining from 52,0% in "ISCED 0-2" down to 31,6% in "ISCED 5-8". While in the household composition and area type, the distribution of the percentages is relatively flat and equal for all categories, the discrepancy among the EU regions for this question is more notable: the South and East EU regions had the most significant spike of respondents with 46,2% and 47,6% respectively of people expressing their overall concern about the topic whereas only 16,8% expressed the same level of concern in the North EU region. The West EU region stayed in the middle of this range, with 30,1% of the respondents expressing concern about their ability to pay their bills. Based on the results presented above, it is possible to conclude that most respondents were not concerned about their ability to pay the bills. With various pikes over the presented attributes, on average less than 10% of the respondents had an extreme concern, while around 20% of the respondents felt any concern.

Regarding Question 5, «To what extent do you strongly agree / somewhat agree with each of the following?» (%), with the possible answers to the question: «The pandemic will have a lasting impact on you/your family» (%), «You will make no travel plans until the situation is back to normal in your country» (%), «You are delaying or thinking about delaying a major purchase because of what is happening with

the coronavirus or Covid-19» (%), both male and female had a similar ratio of respondents to all three options. The majority of the respondents - 77,4% male and 80,7% female stated that they would not make any travel plans until the situation was back to normal in their country. A bit lower percentage voted for answer 1, "The pandemic will have a lasting impact on you/your family», - 65,2% and 67,3%, respectively. Around 40% of males and females (41,1% and 42,4%, respectively) had to delay or think about a major purchase because of Covid-19. As for the age attribute, education level, and area type, - all four had the same level and distribution of response towards all three options. Dwelling on the results presented above, it is possible to conclude that the majority of the respondents, independent of their gender, age, education level, area type, and the EU zone, had to make certain adjustments to their travel plans or delay planning towards a later period. The majority also believe the pandemic will have a long-lasting impact on the respondents' families. A lower percentage of the responses shows the absence of any delay in making major purchases during Covid-19.

In regard to Question 6 «To what extent do you strongly agree / somewhat agree with each of the following regarding the impact of the coronavirus?» (%), with the possible answers to the question: «You do all the things you did before including vacations and travel» (%), «You avoid public transport and use your car or other vehicle more than you did before» (%), «You buy products that are better for the environment such as those in recyclable packaging or use sustainable ingredients, even if they cost more» (%), «You cook at home more and eat out less» (%), «You eat healthier foods, such as those that are lower in fat and have --more natural ingredients» (%), «You shop closer to home and support local businesses» (%), «You are learning a new skill» (%), «You always take a face mask with you when you leave your home» (%), both male and female respondents had their most enormous response rate spread among «You cook at home more and eat out less» (%) – 80,1% and 84,2% respectively, «You shop closer to home and support local businesses» (%) – 79,1% and 83,3%, and «You always take a face mask with you when you leave your home» (%) – 92,9% and 94,9% respectively. The same pattern occurs across all the other attributes: age, education level, area type, and the EU zone - all four had the same level and distribution of response. The least favourite options that had the lowest response rate are «You do all the things you did before, including vacations and travel» (%) and «You are learning a new skill» (%). Dwelling on the results presented above, it is possible to conclude that the majority of the respondents, independent of their gender, age, education level, area type, and the EU zone, had to make vital adjustments to their daily routine either enforced by the external circumstances, such as lockdown (when it comes to going out to eat or shopping in the local area), general sanitary restrictions (using a face mask both indoor and outdoor), as well as internal triggers (not willing to learn a new skill due to unprecedented and highly volatile situation in the world. Only one-third of the respondents were subject to no change during Covid-19 in their daily routine.

Concerning Question 7, «Which if any of the following have you done in the last week?» (%), with the possible answers to the question: «Used a banking app or mobile banking site» (%), «Used a grocery delivery service» (%), «Used a grocery pick-up service (e.g., order online)» (%), «Ordered food delivery

via an app» (%), «Used video to communicate with co-workers, business partners» (%), «Made a purchase from a store on my smartphone» (%), «Booked or rescheduled travel for a future date within the next year» (%), both male and female respondents had their most considerable response rate spread among «Used a banking app or mobile banking site» (%) – 59,5% and 54,6% respectively, « Used video to communicate with co-workers, business partners» (%) – 48,2% and 41,8%, and «Made a purchase from a store on my smartphone» (%) – 25,0% and 21,0% respectively. The same pattern occurs across all the other attributes: age, education level, area type, and the EU zone - all four had the same level and distribution of response. The least favourite options that had the lowest response rate are «Used a grocery delivery service» (%) – 17,5% and 14,0%, respectively, and «Used a grocery pick-up service (e.g., order online)» (%) – 14,3% and 12,4% respectively, and «Booked or rescheduled travel for a future date within the next year» (%) – 12,5% and 11,1% respectively. Dwelling on the results presented above, it is possible to conclude that the majority of the respondents, independent of their gender, age, education level, area type, and the EU zone, had to resort to online instruments, such as a banking app or mobile banking site, as well as made purchases online. The pandemic also vastly changed communication patterns at work. The majority of the respondents had to use online communications and video tools. At the same time, the pandemic did not create any massive increase in online grocery delivery and pick-up services. The respondents also had to rebook or reschedule their flights due to the Covid-19 obstacles in their daily routine.

Through the demographic variables introduced in the thesis and the research findings, it is possible to find a continuation and upward trend line to the meaning of social factor as one of the principle influencing consumer behaviour. During the period of Covid-19 outbreak, most respondents buy goods or services from companies based in their home country or another EU nation and are generally aware of the provider's location. At the same time, most of the respondents only occasionally use any other channels outside the Internet to make purchases of goods. As some authors state in the literature section, personal factor sets another group of elements that significantly impact consumer behaviour. The numbers shown above clearly depict the dependence of the end-consumer on gender affiliation and customer age, age group, and the buyer's financial capabilities which outlines specific consumers in terms of increase or decrease in online purchasing.

Conclusions, Limitations and Future Research Lines

The study has investigated how Covid-19 affected consumer behaviour across the European Union in the field of the socio-economic welfare of the EU population. The research objective has been established as to study the impact of Covid-19 on consumer behaviour in the European Union by analysing key patterns and characteristics of consumer behaviour in the pre-pandemic and pandemic context about the demographic attributes, to identify the primary changes due to Covid-19's economic and social disruption. To achieve the objective, the research presented on these pages has attempted to weave its way through the maze of literature and data about consumer behaviour in regular and crisis times.

First, a thorough literature review on consumer behaviour and Covid-19's impact on a global scale as well as within the EU has been presented in the research through various theoretical concepts and models. As a result, a multi-tier concept of consumer behaviour and its disruption by Covid-19 is given.

Second, a horizontal descriptive analysis has been applied to the Consumer Conditions Survey 2014 and 2018 to have an insight into what characteristics and patterns consumer behaviour followed in the pre-pandemic context. Thanks to that, it is possible to draw the following conclusions from the thorough analysis of how consumer behaviour changed in the European Union from 2014 to 2020. During this period, the average European consumer steadily increased their online purchases of goods and services by 20%, with the most illustrious representatives in the East European Union part. The increase above affected retailers or service providers in the consumer nation and those in the other EU member states. The increase in online shopping also involves merchants or service providers from outside the European Union, contributing to the rise in international trade for the subject area. Retailers and service providers whose whereabouts are unknown to the end user have seen a very slight growth – an average of 4% from 2014 to 2020 – which speaks well of customer knowledge and experience. At the same time, there was an increase in purchases through channels other than the Internet, with an average of 15% coming from EU representatives like the United Kingdom (a former EU member), Cyprus, Belgium, and Greece. Most nations have increased trust in online purchases inside and outside the EU. Such confidence increased by 20%, on average, per nation.

Third, cross-tabulation has been applied in the research to analyse the Consumer Conditions Survey of 2020-2021 through the demographic attributes introduced in the thesis. As a result, most of the above conclusions also find a continuation and upward trend line in this section. It is significant to highlight that most respondents buy goods or services from companies based in their home country or another EU nation and are generally aware of the provider's location. However, most of the respondents only occasionally use any other channels outside the Internet to make purchases of goods.

Finally, certain conclusions have been made regarding the respondents' reaction to the Covid-19 disruption. Namely, multiple survey respondents did not experience any severe long-term difficulties, such as losing their job permanently or experiencing a payment delay, but rather only temporary difficulties, such as a reduction in working hours, the need to apply for government assistance, or a lower salary. Many respondents expressed little fear about their ability to make ends meet. On average, less than 10% of respondents expressed considerable anxiety about the traits provided, whereas 20% expressed no concern. Most respondents had to change or postpone certain aspects of their travel plans independent of their gender, age, education level, neighbourhood type, or EU zone. The majority of respondents also think that their families will be affected by the epidemic in the long run. A smaller fraction of the responses indicates no hesitation in making significant purchases during COVID-19. Predominantly, the respondents, regardless of their gender, age, education level, area type, or EU zone, had to make significant changes to their daily routine as a result of internal triggers (such as reluctance to learn new skills due to unprecedented and highly volatile s), external triggers (such as lockdown when it comes to eating out or shopping in the neighbourhood), or both. Only one-third of the respondents' daily routines were unchanged throughout Covid-19. Most respondents had to use online tools, like a banking app or mobile banking site, and make purchases online, regardless of gender, age, education level, area type, or EU zone. The epidemic also significantly altered workplace communication styles, forcing many responders to use video and web tools. However, there was no significant growth in online grocery delivery and pick-up services due to the pandemic. The Covid-19 hurdles in their routine also forced the respondents to rebook or reschedule their travels.

The research findings find its support in the theoretical framework of the study. Various concepts concerning consumer behaviour factors prove its viability in the numbers represented in the research. Namely, it can be concluded that a vast portion of consumer's decision-making process, starting from the purchase intent is influenced by psychological, social, and personal factors. The overall increase in online purchasing which also involves merchants or service providers from outside the European Union, contributing to the rise in international trade for the subject area, speaks clearly of the improving conditions that customers identify as priority: commodities, followed by selecting those that offer more excellent utility. The European consumer has developed significantly in terms of all the consumer behaviour factors and learnt well their purchase intention. Customer's willingness and propensity to purchase a good or service have also shown its effect. Most nations have increased trust in online purchases inside and outside the EU.

Therefore, in the result of this scientific research, the set objective and the aforementioned mandates have been achieved. Despite that, the research has its own limitations on the study offered on these pages. Firstly, the data provided for the research via the Consumer Conditions Surveys of 2014 and 2018 does not provide the demographic attributes in the earlier versions. This restrains the possibility of better building a consumer profile concerning gender, age, and location characteristics to better understand the European consumer in the pre-pandemic context. Secondly, the research analysis is

deeply related to the only existing survey on the topic, which does not allow for to study of the consumer behaviour concept from a different angle – the research conclusions are highly dependent on the survey variables used by the European Commission in its own study. Finally, it may be necessary to plan a different poll with a relatively large sample to thoroughly examine Covid-19's effects on consumer behaviour by country or European region. This would allow for an insight into the topic by geographical location.

Future research may include a thorough examination of the Consumer Conditions Survey 2022 and 2023, which will probably involve additional in-depth analyses of the impact of Covid-19 on the EU economy and its population.

Sadly, it is crucial to note that while the thesis was being written, a new problem developed in the European region as a result of a military conflict initiated in the continent's easternmost region. The current scenario has brought about a new set of negative consequences for the socioeconomic well-being of Europe, triggered, among others, by the migration and energy crises. This prevents the research's authors from speculating on a potential economic recovery from the pandemic or citing any writers who have provided insight into the subject. In the near future, the European region will undoubtedly have to face new difficulties and concentrate on another recovery process. Meanwhile, when it comes to the analysis of the impact of Covid-19 on consumer behaviour in the European Union, the work contains specific distinctive characteristics of uniqueness that set it apart from previous studies on the subject. If the attitudes mentioned above and experiences are appropriately understood, European institutions may be able to concentrate on Covid-19's effects on the regional and national levels.

References

- Alemanno, A. (2020). The European response to COVID-19: From regulatory emulation to regulatory coordination? *European Journal of Risk Regulation*, 11(2), 307-316. <https://doi.org/10.1017/err.2020.44>
- Atulkar, S., & Kesari, B. (2017). Impulse buying: A consumer trait perspective in context of Central India. *Global Business Review*, 19(2), 477-493. <https://doi.org/10.1177/0972150917713546>
- Bagozzi, R. P., & Dholakia, U. (1999). Goal setting and goal striving in consumer behavior. *Journal of Marketing*, 63, 19-32. <https://doi.org/10.2307/1252098>
- Barinova, N. V. (2018). Customer behaviour transformation: history and today. *Vestnik of the Plekhanov Russian University of Economics*, 3(99), 140-146. <https://doi.org/10.21686/2413-2829-2018-3-140-146>
- Baudrillard, J. (1998). *The consumer society: Myths and structures*. SAGE Publications.
- Belch, M. A., & Belch, G. E. (2014). *Advertising and promotion: An integrated marketing communications perspective*. McGraw-Hill Education.
- Belitski, M., Guenther, C., Kritikos, A. S., & Thurik, R. (2021). Economic effects of the COVID-19 pandemic on entrepreneurship and small businesses. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3905065>
- Bhutta, N., Blair, J., Dettling, L. J., & Moore, K. B. (2020). COVID-19, the CARES Act, and families' financial security. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3631903>
- Block, J. H., Kritikos, A. S., Priem, M., & Stiel, C. (2020). Emergency aid for self-employed in the COVID-19 pandemic: a flash in the pan? *DIW Berlin*, Discussion Paper 1924.
- Caballero, R. J., & Simsek, A. (2020). A model of asset price spirals and aggregate demand amplification of a 'COVID-19' shock. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3576979>
- Cabral, S., Serra, S., Manteu, C., & Silva, C. (2021). Consumption expenditure during the COVID-19 pandemic: an analysis based on Portuguese card transaction data. *Economic Studies, Banco de Portugal*, 7(4), 25-48.
- Chan, T. K., Cheung, C. M., & Lee, Z. W. (2017). The state of online impulse-buying research: A literature analysis. *Information & Management*, 54(2), 204-217. <https://doi.org/10.1016/j.im.2016.06.001>
- Cho, A., Muecksch, F., Schaefer-Babajew, D., & Wang, Z. (2021). Anti- SARS-Cov-2 receptor binding domain antibody evolution after mRNA vaccination. *Nature*, 600, 517-522. <https://doi.org/10.1101/2021.07.29.454333>

Clow, K. E., & Baack, D. (2016). *Integrated advertising, promotion, and marketing communications* (7th ed.). Pearson Education.

Consumer Conditions Survey: Consumers at home in the single market. (2021). Tableau Software. Retrieved October 7, 2022, from <https://public.tableau.com/views/ConsumerConditionsSurvey/Start?%3AshowVizHome=no>

Consumer scoreboards. (2021). European Commission. Retrieved October 7, 2022, from https://ec.europa.eu/info/policies/consumers/consumer-protection-policy/evidence-based-consumer-policy/consumer-scoreboards_en

Corman, V., Landt, O., Kaiser, M., & Molenkamp, R. (2020). Detection of 2019 novel coronavirus (2019-nCoV) by real-time RT-PCR. *Eurosurveillance*, 25(3). <https://doi.org/10.2807/1560-7917.ES.2020.25.3.2000045>

Correia, P. M., Mendes, I. D., Pereira, S. P., & Subtil, I. (2020). The combat against COVID-19 in Portugal: How state measures and data availability reinforce some organisational values and contribute to the sustainability of the national health system. *Sustainability*, 12(18), 7513. <https://doi.org/10.3390/su12187513>

Dahl, R. A., Haire, M., & Lazarsfeld, P. F. (1959). *Social science research on business: Product and potential*. New York: Columbia University Press.

Di Crosta, A., Ceccato, I., Marchetti, D., La Malva, P., Maiella, R., & Cannito, L. (2021). Psychological factors and consumer behavior during the COVID-19 pandemic. *PLOS ONE*, 16(8), e0256095. <https://doi.org/10.1371/journal.pone.0256095>

Ding, Y., DeSarbo, W. S., Hanssens, D. M., Jedidi, K., Lynch, J. G., & Lehmann, D. R. (2020). The past, present, and future of measurement and methods in marketing analysis. *Marketing Letters*, 31(2-3), 175-186. <https://doi.org/10.1007/s11002-020-09527-7>

Dolzhenko, I. B. (2021). The impact of digital marketing on consumer behaviour. *Journal of Economy and Business*, 10-1(80), 111-117. <https://doi.org/10.24412/2411-0450-2021-10-1-111-117>

Duffin, E. (2020, March 25). *Opinion of Adults in G7 Countries of the Expected Impact of the COVID-19 Pandemic on their Household Income as of March 2020*. Statista. <https://www.statista.com/statistics/1107322/Covid-19-expected-impact-household-income-g7/>

Fairlie, R., & Fossen, F. M. (2021). The early impacts of the COVID-19 pandemic on business sales. *Small Business Economics*. <https://doi.org/10.1007/s11187-021-00479-4>

Fuentes, N. M., & Moder, I. (2021). The scarring effects of COVID-19 on the global economy. *VoxEU*. <https://voxeu.org/article/scarring-effects-Covid-19-global-economy>

- Gajjar, N. B. (2013). Consumer behavior and the process of purchase decision. *International Journal for Research in Management and Pharmacy*, 2(3), 8-13.
- Gelderman, C. J., Mampaey, J., Semeijn, J., & Verhappen, M. (2019). Self-justification for opportunistic purchasing behavior in strategic supplier relationships. *Journal of Business & Industrial Marketing*, 34(2), 451-462. <https://doi.org/10.1108/jbim-03-2017-0077>
- Geng, D., Liu, J., & Zhu, Q. (2017). Motivating sustainable consumption among Chinese adolescents: An empirical examination. *Journal of Cleaner Production*, 141, 315-322. <https://doi.org/10.1016/j.jclepro.2016.09.113>
- Goldsmith, R. (2016). The big five, happiness, and shopping. *Journal of Retailing and Consumer Services*, 31, 52-61. <https://doi.org/10.1016/j.jretconser.2016.03.007>
- Hoffmann, S. (2013). Are boycott motives rationalisations? *Journal of Consumer Behaviour*, 12(3), 214-222. <https://doi.org/10.1002/cb.1418>
- Iftekhar, E. N., Priesemann, V., Balling, R., & Bauer, S. (2021). A look into the future of the COVID-19 pandemic in Europe: an expert consultation. *The Lancet Regional Health - Europe*, 8. <https://doi.org/10.1016/j.lanep.2021.100185>
- International Monetary Fund Research Dept. (2020, April 14). *The Great Lockdown*. In *World Economic Outlook* (pp. 1–177). International Monetary Fund. <https://doi.org/10.5089/9781513539744.081>
- Jackson, J. K., Weiss, M. A., Schwarzenberg, A. B., & Nelson, R. M. (2020). *Global economic effects of COVID-19*. Congressional Research Service.
- Joshi, Y., & Rahman, Z. (2017). Investigating the determinants of consumers' sustainable purchase behaviour. *Sustainable Production and Consumption*, 10, 110-120. <https://doi.org/10.1016/j.spc.2017.02.002>
- Kaplan, L. B., Szybillo, G. J., & Jacoby, J. (1974). Components of perceived risk in product purchase: A cross-validation. *Journal of Applied Psychology*, 59(3), 287-291. <https://doi.org/10.1037/h0036657>
- Kershaw, I. (2018). *Roller-coaster: Europe, 1950-2017*. Penguin UK.
- Kotler, P. (2003). *Marketing management* (3rd ed.). Teora Publishing House.
- Kotler, P. (2017). *Principles of marketing* (7th ed.). Pearson Education.
- Kotler, P., & Keller, L. K. (2016). *Marketing management* (15th ed.). Pearson Education.
- Kumar, A., Chaudhuri, S., Bhardwaj, A., & Mishra, P. (2020). Impulse buying and post-purchase regret: A study of shopping behaviour for the purchase of grocery products. *International Journal of Management*, 11(12). <https://doi.org/10.34218/ijm.11.12.2020.057>

- Macinnis, D. J., & Folkes, V. S. (2010). The disciplinary status of consumer behavior: A sociology of science perspective on key controversies. *Journal of Consumer Research*, 36(6), 899-914. <https://doi.org/10.1086/644610>
- Madhav, N., Oppenheim, B., Gallivan, B., & Mulembakani, P. (2017). Pandemics: risks, impacts, and mitigation. In *Disease control priorities: Improving health and reducing poverty* (3rd ed.). Washington DC: The International Bank for Reconstruction and Development. https://doi.org/10.1596/978-1-4648-0527-1_ch17
- Maison, D. (2019). The psychology of financial consumer behavior. In *The psychology of financial consumer behavior* (pp. 1-49). Cham: Springer International Publishing.
- Malter, M. S., Holbrook, M. B., Kahn, B. E., Parker, J. R., & Lehmann, D. R. (2020). The past, present, and future of consumer research. *Marketing Letters*, 31(2-3), 137-149. <https://doi.org/10.1007/s11002-020-09526-8>
- Manski, C. F. (2020). Forming COVID-19 policy under uncertainty. *Journal of Benefit-Cost Analysis*, 11(3), 341-356. <https://doi.org/10.1017/bca.2020.20>
- Martinez-Ruiz, M. P., & Moser, K. S. (2019). Studying consumer behavior in an online context: The impact of the evolution of the World Wide Web for new avenues in research. *Frontiers in Psychology*, 10. <https://doi.org/10.3389/fpsyg.2019.02731>
- Melnyk, V., Carrillat, F. A., & Melnyk, V. (2021). The influence of social norms on consumer behavior: A meta-analysis. *Journal of Marketing*. <https://doi.org/10.1177/00222429211029199>
- Mishra, O. (2018). Criteria for evaluation of alternatives in online consumer decision-making process. *ELK Asia Pacific Journal of Marketing and Retail Management*, 9(4). <https://doi.org/10.31511/eapjrm.2018v09i04005>
- Mohsin, A., Hongzhen, L., & Hossain, S. F. (2021). Impact of COVID-19 pandemic on consumer economy: Countermeasure's analysis. *SAGE Open*, 11(2). <https://doi.org/10.1177/21582440211008875>
- Nozdreva, R. (2018). Development of marketing concept on the basis of the empirical economy. *Marketing in Russian and abroad*, 4, 3-10.
- Pak, A., Adegboye, O. A., Adekunle, A. I., & Rahman, K. M. (2020). Economic consequences of the COVID-19 outbreak: The need for epidemic preparedness. *Frontiers in Public Health*, 8(241). <https://doi.org/10.3389/fpubh.2020.00241>
- Panwar, D., Anand, S., Ali, F., & Singal, K. (2019). Consumer decision making process models and their applications to market strategy. *International Management Review*, 15, 36-44.

- Pedauga, L., Sáez, F., & Delgado-Márquez, B. L. (2021). Macroeconomic lockdown and SMEs: The impact of the COVID-19 pandemic in Spain. *Small Business Economics*, 58(2), 665-688. <https://doi.org/10.1007/s11187-021-00476-7>
- Piligrimienė, Ž., Žukauskaitė, A., Korzilius, H., Banytė, J., Dovalienė, A. (2020). Internal and external determinants of consumer engagement in sustainable consumption. *Sustainability*, 12(4), 1349. <https://doi.org/10.3390/su12041349>
- Pradhan, D., Israel, D., & Jena, A. K. (2018). Materialism and compulsive buying behaviour. *Asia Pacific Journal of Marketing and Logistics*, 30(5), 1239-1258. <https://doi.org/10.1108/apjml-08-2017-0164>
- Qazzafi, S. (2019). Consumer buying decision process toward products. *International Journal of Scientific Research and Engineering Development*, 2(5), 130-134.
- Rajagopal. (2021). *Crowd-based business models: Using collective intelligence for market competitiveness*. Springer Nature.
- Ramya, N., & Mohamed, S. A. (2016). Factors Affecting Consumer Buying Behavior. *International Journal of Applied Research*, 2(10), 76-80.
- Roloff, R. (2020). COVID 19 and no one's world: What impact for the European Union? *Connections: The Quarterly Journal*, 19(2), 25-36. <https://doi.org/10.11610/connections.19.2.02>
- Schouten, J. W., & McAlexander, J. H. (1995). Subcultures of consumption: An ethnography of the new bikers. *Journal of Consumer Research*, 22(1), 43. <https://doi.org/10.1086/209434>
- Sheth, J. (2020). Impact of COVID-19 on consumer behavior: Will the old habits return or die? *Journal of Business Research*, 117, 280-283. <https://doi.org/10.1016/j.jbusres.2020.05.059>
- Solomon, M., Bamossy, G., Askegaard, S., & Hogg, M. (2016). *Consumer Behaviour. A European Perspective*, (3rd ed.). Pearson Education.
- Stankevich, A. (2017). Explaining the consumer decision-making process: Critical literature review. *Journal of International Research and Marketing*, 2(6), 7-14. <https://doi.org/10.18775/jibrm.1849-8558.2015.26.3001>
- Telenti, A., Arvin, A., Corey, L., & Corti, D. (2021). After the pandemic: Perspectives on the future trajectory of COVID-19. *Nature*, 596(7873), 495-504. <https://doi.org/10.1038/s41586-021-03792-w>
- Tran, B. X., Nguyen, H. T., Le, H. T., & Latkin, C. A. (2020). Impact of COVID-19 on economic well-being and quality of life of the Vietnamese during the national social distancing. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.565153>
- Varadarajan, R. (2020). Customer information resources advantage, marketing strategy and business performance: A market resources-based view. *Industrial Marketing Management*, 89, 89-97. <https://doi.org/10.1016/j.indmarman.2020.03.003>

- Victor, V., Thoppan, J. J., Nathan, R. J., & Fekete, M. F. (2018). Factors influencing consumer behavior and prospective purchase decisions in a dynamic pricing environment — An exploratory factor analysis approach. *SSRN Electronic Journal*, 7(153). <https://doi.org/10.2139/ssrn.3412528>
- Volovskaya, N. M., & Idrissova, A. I. (2020). Factors influencing the conduct of consumers. *Journal of Economy and Business*, 4-1(62), 76-79. <https://doi.org/10.24411/2411-0450-2020-10260>
- Walsh, S. (2016). Five trends that will change consumer behavior in 2016. *The Globe and Mail*. <https://www.theglobeandmail.com/report-on-business/small-business/sb-growth/five-trends-that-will-change-consumer-behaviour-in-2016/article28019355/>
- Wang, L., Yan, Q., & Chen, W. (2019). Drivers of purchase behavior and post-purchase evaluation in the singles' day promotion. *Journal of Consumer Marketing*, 36(6), 835-845. <https://doi.org/10.1108/jcm-08-2017-2335>
- Wertenbroch, K., Schrift, R. Y., Alba, J. W., Barasch, A., Bhattacharjee, A., & Giesler, M. (2020). Autonomy in consumer choice. *Marketing Letters*, 31(4), 429-439. <https://doi.org/10.1007/s11002-020-09521-z>
- Willman-Livarinen, H. (2017). The future of consumer decision-making. *European Journal of Futures Research*, 5(1). <https://doi.org/10.1007/s40309-017-0125-5>
- Wolff, S., & Ladi, S. (2020). European Union responses to the COVID-19 pandemic: Adaptability in times of permanent emergency. *Journal of European Integration*, 42(8), 1025-1040. <https://doi.org/10.1080/07036337.2020.1853120>
- Wu, C., Zhou, X., & Song, M. (2016). Sustainable consumer behavior in China: An empirical analysis from the Midwest regions. *Journal of Cleaner Production*, 134, 147-165. <https://doi.org/10.1016/j.jclepro.2015.06.057>
- Yeyati, E. L., & Filippini, F. (2021). *Social and economic impact of COVID-19*. Brookings Institution.
- Zhao, J., Xue, F., Khan, S., & Khatib, S. F. (2021). Consumer behaviour analysis for business development. *Aggression and Violent Behavior*. <https://doi.org/10.1016/j.avb.2021.101591>
- Zinecker, M., Doubravský, K., Balcerzak, A. P., & Pietrzak, M. B. (2021). The COVID-19 disease and policy response to mitigate the economic impact in the EU. *Technological and Economic Development of Economy*, 27(3), 742-762. <https://doi.org/10.3846/tede.2021.14585>