Open University of Cyprus

Faculty of Economics and Management

Master's Degree Program Enterprise Risk Management

Master's Thesis

Evaluating Business Risks driven by Consumer Perceptions, Attitudes and Online Shopping Behaviour during the Covid-19 era

Georgia Charalambous

Thesis Supervisor
Pandelis Ipsilandis

May 2022

Open University of Cyprus

Faculty of Economics and Management Master's Degree Program Enterprise Risk Management

Master's Thesis

Evaluating Business Risks driven by Consumer Perceptions, Attitudes and Online Shopping Behaviour during the Covid-19 era

Georgia Charalambous

Thesis Supervisor
Pandelis Ipsilandis

A Thesis submitted in partial fulfilment of the requirements for the obtaining
of Master's Degree in Enterprise Risk Management from the Faculty
of Economics and Management
of Open University of Cyprus

May 2022

Summary

Coronavirus disease has been declared as a pandemic by the World Health Organization (WHO) since March 2020 and has managed to shock societies, health systems, economies and governments all over the world. Due to this unforeseen virus, a knowledge gap of scientific information regarding Covid-19 pandemic and its implications on the business sector persists to exist.

This study aims to contribute to the identification of the most prominent risks in the Cypriot market based on customer perceptions, attitudes and online purchasing behaviours, while ultimately providing new information on Cypriot customers that might be useful to businesses, stakeholders and even governments. A primary quantitative research strategy was conducted for the purposes of the study with the use of online questionnaires. This survey's target population consists of any individual aged 18 and above who is a resident of Cyprus. The questionnaire used is consisted of 31 questions which are divided in 4 sections: Demographics, Impact of the Pandemic, Online shopping and Post-pandemic.

The main findings of the research imply Financial risk, such as Market and Liquidity risk, Operational such as Process and Model risk, Health and finally Government Risk. It was found that consumers' fear about their families' and their own health has intensified during the pandemic and they are more likely to engage in preventive and avoidant behaviours. Additionally, their three purchase priorities are groceries and food, medical supplies, and clothing. It was discovered that the majority of the sample already makes frequent use of online shopping options, with clothes/accessories, restaurant deliveries and technological equipment being the top three categories of products often purchased online. In general, internet shopping increased during the pandemic and is not estimated to decrease post-pandemic. Finally, associations between fear, preventative and avoidant behaviours, online shopping frequency, concerns while purchasing online and demographics were revealed to be informative and yielded significant relationships.

Acknowledgements

Table of Contents

Chapter 1
Introduction

Humanity is currently facing a significant challenge. Covid-19 is a relatively recent virus which eventually evolved into a global pandemic, since its first appearance in Wuhan, China, and has managed to cause great harm to the world economy and international trade (Golec et al., 2020). The financial sustainability of enterprises has been harmed by the decrease in demand and the preventative measures adopted by governments throughout the world, creating a cycle of uncertainty for individuals, organisations, and governments alike. Several changes in consumer perceptions, attitudes and online shopping behaviours have also been observed during and after the initial wave of the pandemic.

Consumer perceptions and attitudes are directly related to a company's ability to thrive by providing products or services that meet the preferences and current needs of its customers. During the pandemic, we observe shifts in customer attitudes that are critical to a business's viability. Changes in customers' purchasing priorities and considerations prior to a purchasing transaction, reduced human mobility due to greater perceived fear and increased engagement in risk reduction measures must all be investigated in order for corporations to become aware of them and respond accordingly.

Aside from these, the online shopping behaviour of consumers in this limited mobility environment needs to be examined. As we will see further in this research, online shopping is becoming increasingly popular, and more people are becoming familiar with using the internet for their everyday purchases (Gu et al., 2021). Corporations are providing their

customers with online options in addition to the traditional physical in-store experience. Social isolation, law enforcements and personal safety concerns all contributed to a significant increase and development of online activity (Villi, 2021).

Taking everything into account, many business risks can arise as a result of changes in consumer attitudes and online shopping behaviours. Risks have always existed in the business world, and they are influenced by a variety of external and internal factors. Business risks are challenges to an organization's ability to properly execute business operations and provide stakeholder value in regards to their strategic goal. The final objective of this study is the identification of possible risks that are driven by consumer perceptions and attitudes and online shopping behaviour during the Covid-19 era (Borghesi & Gaudenzi, 2013). More specifically, the research's objectives are focused in identifying Cypriot consumers' attitudes, social behaviours, online shopping behaviours during the pandemic as well as their perception towards fear caused by the virus. Then we will try to recognize if any changes will be sustained post-pandemic, and finally we will attempt to identify the business risks emerged. A quantitative approach will be used to collect the primary data for the research with the use of questionnaires addressed to Cypriot and Greek citizens. In addition, we are gathering secondary data from existing literature such as books, journals, business databases, website articles and existing reports.

Currently, there is a lot of new information on the subject that has yet to be discovered, as well as numerous dangers that must be taken into consideration (Rodrigues et al, 2021). The chosen research topic aims to fill a part of the gap in the literature regarding Cypriot consumer behaviour during the pandemic and can be found especially important and necessary by corporations and policymakers in Cyprus. When it comes to taking substantial decisions, information on consumer perceptions and preferences, as well as knowledge on whether the pandemic introduced new business risks, may be considered valuable by business leaders and stakeholders.

Based on the existing literature, the study will firstly provide a background on the Covid-19 pandemic including the consequences on corporations and the current implications on the global economy. Following that, we will provide background information on consumer perceptions and attitudes, online shopping behaviours, and, finally, information on business risks as presented in the literature. Later on, we will continue with the methodology chapter, in which we will explain in detail how we will obtain the primary data, which will then be statistically analysed and presented. Finally, the findings will be compared to those of previous studies under the discussion section and all final conclusions will be highlighted.

Chapter 2
Literature Review

2.1. Covid – 19 Pandemic

Viral diseases go way back for humanity. From the beginning of human interactions various diseases made their appearance and eventually infecting groups, communities or countries resulting to epidemic or even pandemic outbreaks (Cliff & Smallman-Raynor, 2013). The term epidemic refers to the sudden and rapid spread of a virus in an area while pandemic includes a much wider spread which usually involves multiple countries, similar to our recent experience with Covid-19 ("Principles of Epidemiology", 2012). Coronavirus disease has been declared as a pandemic since March 2020 by the World Health Organization (WHO) and has undoubtingly shocked society, health systems, economies and governments all around the world. It has caused significant and numerous changes in everyone's lifestyle along with devastating consequences (Golec et al, 2020). As we can understand the problems that come with such an outbreak are plenty, starting with the human lives lost due to the lack of treatment and ending to the impact caused to a country's economy (Delivorias & Scholz, 2020). Government authorities were – and still are – forced to take immediate decisions regarding the pandemic's impact and aftermath that will probably leave a footprint for years to come (Singh & Singh, 2020). At the same page, organizations are faced with tremendous changes and decisions to be made as well since they are now called to adjust to this new era of uncertainty characterized by minimal face-to-face interactions, digitalized transactions and a spiked increase of online merchandizing activities (Bartik et al, 2020).

The pandemic had major negative consequences for corporations, clients, supply networks, and financial markets, leading to a global economic downturn, however, the uncertainty

surrounding the pandemic's resolution hinders an estimate of the magnitude of this recession, which has induced changes in all fields (Rodrigues et al, 2021). It has caused and continues to cause huge damage to the global economy and international commerce, as evidenced by the Organization for Economic Cooperation and Development (OECD) lowering its global growth forecast from 2.9 percent to 2.4 percent. They have, also, expressed concern that it could fall as low as 1.5% due to the Covid-19 pandemic while plenty of other factors such as travel limitations, income reductions and unstable consumer demand, have exacerbated the uncertainty in which enterprises and end customers have found themselves (Gu S. et al, 2021; Singh & Singh, 2020).

Moreover, this virus is impacting people's social lives which ultimately can have negative effects on the business cycle. Schools, universities, bars, restaurants and cafes are shutting down and at the same time festivals, concerts and family celebrations are getting canceled or postponed in an attempt to control the spread of the virus. Statistics show that over 420 million children and adolescents have been affected due to the prevention measures taken in over 39 nations (Singh & Singh, 2020).

All of the above resulted to a significant upheaval of the global economic market with frequent falls of the stock market as well. Business wise, the financial viability of corporations has been negatively affected due to the drop in demand and therefore employment is no longer guaranteed. This phenomenon is especially intense for the smaller and medium sized companies which were compelled to shut, limiting their revenues and ultimately leading to insolvency (Rodrigues et al, 2021). Interesting are the findings of Grant Thornton Greece (2020) stating that Covid-19 outbreak directly impacted 69 percent of Greek enterprises' overall revenue, causing them to reduce or even cease operations. Due to the mitigation and suppression tactics that government imposed, enterprises with a total revenue of €32.9 billion and approximately 1.1 million executives have halted operations, while accommodation and catering services, education and entertainment are the sectors most severely impacted, with nearly all activities ceasing. According to Rodrigues et al., coronavirus

has surely caused a significant drop in gross domestic product, emphasizing on the fact that it might be the worst in the recent century.

Taking all of the above into consideration, it is only logical to admit that the worldwide effects of the pandemic on governments, industries, and companies have already made their presence noticeable, due to the supply and demand disruption. However, a knowledge gap of scientific information regarding COVID-19 persists to exist, letting crisis recovery contingent on whether executives approach it as a risk or an opportunity (Rodrigues et al, 2021). Further on with our research, we are going to examine the changes in consumer perceptions and attitudes observed during and after the first waves of the pandemic along with the changes in online shopping behaviours. Eventually, we are going to display and analyse the business risks derived from the said changes.

2.2. Consumer Perceptions and Attitudes during pandemic

A customer's perception or understanding of a firm, its products or services is a marketing concept. By the time a specific product or service is introduced to the customer, the overall concept of consumer perception commences, and the cycle repeats itself until the consumer develops an impression of the product. Consumer perception could be influenced by anything, starting off with internal actions controlled by the organization such as the way things are displayed in a store, the colours and designs of the brand and the commercials or external factors such as consumers' personal experiences and opinions, likes and dislikes and so on (Xu et al., 2007). Since almost everything a business does has a direct or indirect impact on customer perception, it could be considered as an important business aspect in relation to the viability of a firm. Altogether, consumer perception is critical and can hold the power to build or damage an organization. So, by consumer perception, business wise and regarding to the pandemic, we refer to a person's knowledge and engagement in the topics, behaviours and processes that are relevant to their understanding of the situation (Pantea Foroudi et al., 2021).

Consumer behaviour or attitude on the other hand, is commonly thought to refer to the act of purchasing a product or service rather than the state of mind and opinion a customer holds towards it. It is equally important with customer perception since the one completes the other with the prerequisite of both being positive in order to be effective (Solomon et al., 2012). Issues such as identifying the need for a new product or service, acquiring information about the available alternatives, recognizing anticipated future scenarios and other factors related to the purchase intention are most probably the most crucial issues that occur prior to reaching a decision (Ajzen, 2008).

During and after the first wave of pandemic we can identify various changes both in the perceptions of consumers and their attitudes. According to Gu et al. (2021), a shift in customer considerations prior engaging in any transaction is becoming more and more obvious and prominent after the pandemic. While price, availability and convenience were considered to be the primary customer considerations, hygiene has now made it to the top of the purchasing criteria list. Insightful are the results of a study on the consumer behaviour changes in Turkey as well, according to which a large percentage of the subjects admitted a change of their purchasing priorities after the pandemic highlighting the fact that celebrations or events that required big expenditures including travelling were being postponed (Villi B., 2021). According to a discovery made by Golec et al. (2020), Covid-19 had a substantial negative relationship with the frequency of grocery visits by municipality in the Netherlands, implying that individuals are more scared to go outside when there is a greater virus spread in their region. But, since groceries are essential products there was not a drop in the overall grocery expenditure, simply a drop in the number of trips, implying that individuals prefer to spend more each time they go to the store in case the perceived risk is high, as shown by the

increase in the average amount per transaction in Figure 1. Consequently, while shop visits are significantly down, consumption is not.

Another noticeable change found to be the revenue growth in the sales of markets related to food, medical supplies, technology, kids' commodities, athletic and entertainment goods.
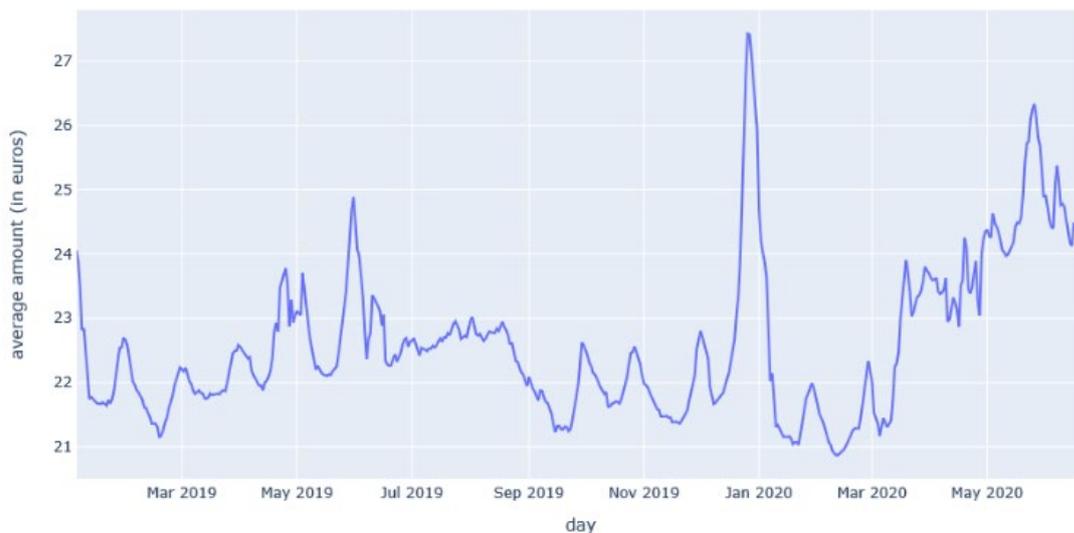
Figure 1. Average amount per transaction in euros spent with debit cards in the Netherlands. Source: Golec et al., 2020

Actually, technology and food related industries were the ones most positively affected by the pandemic. As Villi (2021) mentions, the demand for digital technology equipment such as cameras, microphones and laptops has increased dramatically as a result of the lockdowns during the pandemic. Also, because most people were obliged to dine at home, the sales in the food and beverage business have been increased as well, with single-use goods being reintroduced in the market. According to Gu et al. (2021), transactions on supermarket and retail websites noted an estimated increase of 73.4 percent and 49.9 percent, respectively. Adding to that, the findings of a study (Baker et al., 2020), based in the United States, examining the correlation between household consumption and Covid-19, revealed a significant increase in food industry - as stated previously by other researchers as well - and card payments during the very first stages of the pandemic. Although, as months progressed a general decrease in purchasing intention and spending tendencies was noticed, mostly due

to the restrictions and salary cuts. The research of Baker et al. (2020) continues by indicating the fact that reduced human mobility was associated with lower expenditure in all categories. As a chain reaction, the number of impulsive purchases is found to be noticeably decreased, while the number of scheduled purchases on the other hand has been amplified (Gu et al, 2021). On the same note of purchasing attitudes, we also observe an increasing willingness of digital purchases and e-commerce globally due to the restrictive measures which eventually harmed customer trust. Consumer perceptions regarding online shopping was massively altered during lockdowns and even more and more consumers were choosing digital channels for their purchases. Eventually, internet users' attitude exhibits an inclination in purchasing high-quality goods at reduced rates while favouring online retailers that offered a diverse selection of products (Gu et al, 2021).

Moving on, our next observation has to do with the fact that fear played a substantial role in consumers perceptions and attitudes. When it comes to a worldwide pandemic, certain crucial elements such as salary cuts or output shortages due to government constraints and cease of operations have tremendous effects on the anticipated health risks (Pantea Foroudi et al, 2021). While the COVID-19 pandemic has an impact in all areas, it poses a significant danger and uncertainty for customers. Consumers make judgments under a certain amount of risk and uncertainty, according to Pantano et al. (2021), although "normal" uncertainty levels are usually manageable, given the current scenario this does not apply. Consumers' perceptions of underlying threats alter after enduring a global crisis, motivating them to accept less risks. Consumers engage in various risk-reduction measures when their perceived risk and fear rising, such as gathering as much information as possible or changing their buying intentions. It is universally accepted that fear can be a paralysing and a powerful emotion if not taken under control (Dowling & Staelin, 1994). Up until now, consumers have already shown and confirmed that they are prepared to conform to social isolation, avoid congested areas and only leave their houses if absolutely necessary following government's measures (Singh & Singh, 2020). On that note, since the majority of consumers are avoiding going outside, travelling has been noticeably limited as well. Generally, it is shown that tourists are continually trying to maximize their happiness while avoiding any unfavourable encounters such as a substantial health risk. Airport closures, travel restrictions and flight cancellations

made it difficult and risky for people to travel (Kusumaningrum & Wachyuni, 2020). Actually, travellers were willing to alter or cancel their reservations and plans if they perceived a higher expected risk at their area of travel. It has been shown that customer behaviour, when it comes to travelling, after the pandemic is inversely proportionate with the amount of perceived risk of the destination (Villi B., 2021). Hence, tourism industry was heavily affected all around the globe and countries like Greece and Cyprus were seriously wounded (Folinas & Metaxas, (2020).

Finally, statistics (EY Future Consumer Index, 2021) regarding the changes in perception and attitude in Greece show that most Greek consumers are tired of the tight regulations adopted in response to the virus and they are eager to return to some semblance of normality while, at the same time, the feeling of insecurity about the uncertain future is persistent. Greeks aren't solely consuming greater commodities at home, as was observed in other countries as well, but according to surveys' results, they have modified their entire lifestyle in order to be able to stay in their homes as much as possible. Also, regarding their attitudes towards mobility and transportation means, findings state a considerable change while revealing a clear link between gender and the influence on mobility habits with the lockdown having a greater impact on women than men (Vatavali et al., 2020). Moreover, their consumer concerns mostly revolve around the economic impact of the pandemic on their country. As a result, individuals prefer to spend less prioritizing their essential needs and save more, with product and service prices being by far the most significant consideration for their purchases. In general, consumer attitudes towards purchasing behaviour display a decrease in spending along with a differentiation of purchasing criteria by placing affordability at the top of their list. Additionally, the pandemic has influenced the way Greek customers perceive and choose brands. More specifically, two out of every five people have already switched brands with the purpose of saving money and supporting small businesses and local companies (Mavros, 2021).

Summarizing, the majority of individuals reported at least one behavioural change as a result of the pandemic. It is shown over the years that in times of risk and uncertainty, customer

perceptions and attitudes shift due to the fact that they assume risk equals losses, either financial or emotional (Koç et al., 2019). The greater the number of Covid-19 cases detected in a location; the more behavioural changes were observed as well. Interestingly, it was found that women and younger generations were the two groups that chose to adopt more preventative behaviours such as washing their hands frequently and wearing their face masks. Likewise, avoidant behaviours such as avoiding crowded places or preferring to stay at home, were mainly adopted by women and married people (Long & Liu, 2021). Admittedly, the current worldwide coronavirus pandemic illustrates another global calamity, similar to the 1918 'Spanish Flu' outbreak, which wreaked havoc on the global economic system. The present situation in the face of the pandemic is unclear, challenging and unpredictable in all aspects especially in the way transactions are now handled (Gössling et al., 2020). As we briefly mentioned previously, internet usage has been undoubtedly increased during the pandemic while online shopping is embedding in our everyday lives. In the following section we are going to analyse the online shopping behaviours noticed after Covid-19 became everyone's reality.

2.3. Online Shopping Behaviour during the pandemic

Businesses' digital existence is now considered a necessary aspect of their operations. The business to consumer segment of online commerce emerged as a rapidly evolved marketplace by changing and significantly impacting the way businesses operate nowadays in order to stay competitive. The Internet's capability as a market environment has opened up new opportunities for product marketing and sales that span the whole business spectrum (Harkiolakis & Halkias, 2006). As previously discussed, customer perceptions and attitude changes during Covid-19 proceeded to affect multiple aspects of the business nature such as the e-commerce. Nowadays, online purchasing has become a fast-developing phenomenon (Yi Jin Lim et al, 2016). According to Villi (2021), online purchases and online activity in general have been increased dramatically due to social isolation, physical facility restrictions, personal safety concerns and all the measures put in place in an attempt to mitigate the spread of Covid-19. The virus has actually prompted customers to embrace technology and utilize the

available online channels favouring some sectors over others as shown in Figure 2 (Gu et al., 2021).
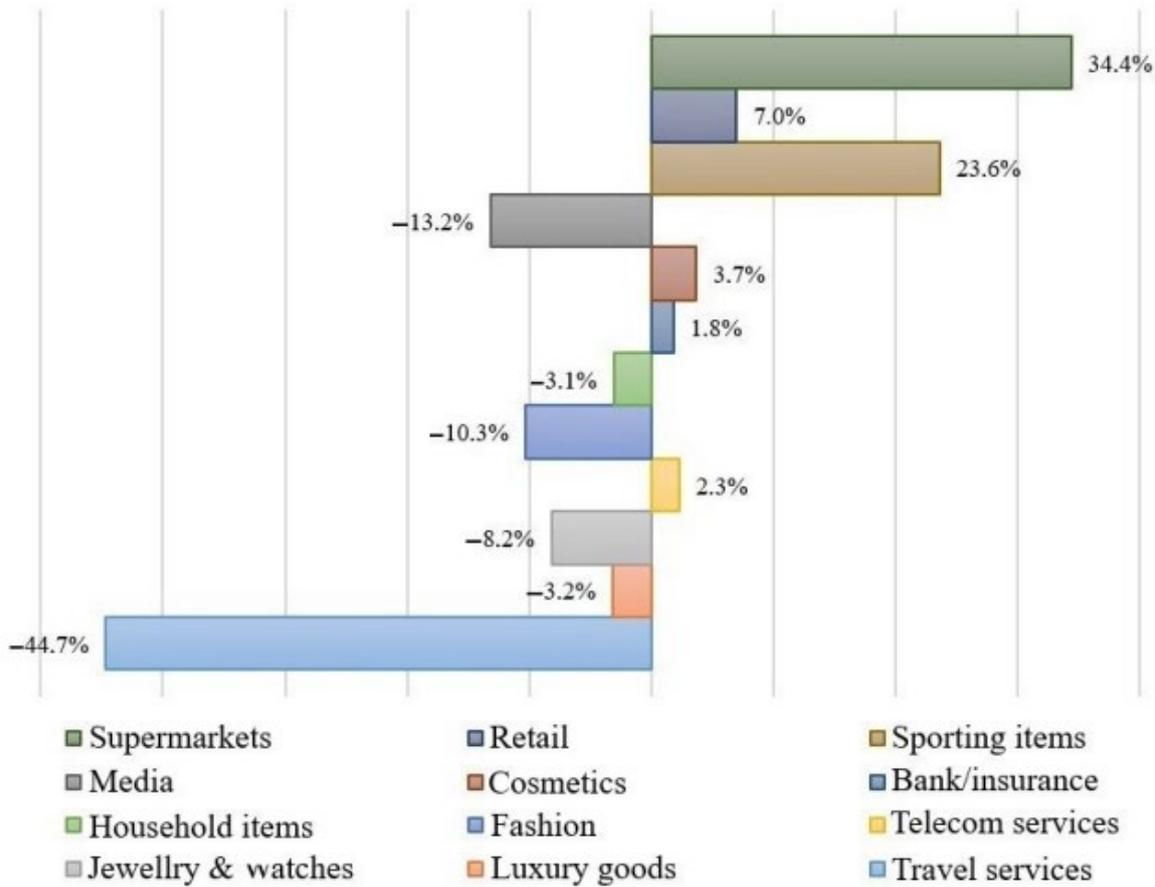
Figure 2. Estimated global average change in web traffic from October 2019 to January 2020
Source: Gu et al., 2021

Firstly, it is observed that customers' growing avoidance to go outside to acquire essentials, have led them into purchasing groceries and food online (Gao et al., 2020), which, according to Rodrigues et al. (2021), is mainly applicable to consumers living in severely impacted areas. According to Fihartini et al (2021), from January to July 2020, the amount of e-subscriptions surged by 38.3 percent due to the public belief that purchasing online is a safer option than shopping in a physical store in order to prevent the virus from spreading. Indeed, according to Habib and Hamadneh (2021), perceived danger and customer trust in online transactions are the two major elements that determine the adoption and acceptance degree of online channels. Customers continue to assume that utilizing the Internet to make purchases is unsafe making the fear of the unknown one of the greatest reasons preventing people from

making or completing their online purchases. Hence, some people, still have negative perceptions regarding e-commerce due to a variety of troublesome causes and doubts, especially older people who are less familiar with the use of the internet (Wang et al., 2022). On the contrary with the previous findings, Salem and Md Nor (2020), support that even though risk-taking inclination was proven to have a substantial effect on online activities, perceived health risk had no significant influence on customers' desire to adopt online shopping behaviours in Saudi Arabia. This was supported by the fact that a substantial number of consumers continued to shop physically in stores in Saudi Arabia without having any concern of possible contamination. This contrast in behaviours, other than the existence of cultural differences which can possibly assist or prevent digital acceptance, could also be explained by the term of social influence. According to Habib and Hamadneh (2021), social influence has a significant impact on human behaviour when it comes to technology adoption. Most specifically, social image and group norm was proven to have substantial effects on customer engagement.

Despite the fact that data revealed that age affected negatively the likelihood of purchasing groceries online and indicating the fact that the vast majority of older individuals preferred to shop in store, it has also shown that the higher the age the more consistent customers seemed to be on future grocery shopping plans. These data imply that, as compared to younger customers, older buyers are more likely to plan to continue buying online, maybe due to convenience and, in certain circumstances, to escape the physical rigors of food shopping. So, regardless of the pandemic, once older people are willing to try online shopping, the more likely is to continue shopping online in the future (Jensen et al., 2021). Nonetheless, provided that e-commerce usage has been increased during the pandemic, it is expected to continue to increase after the pandemic as well (Villi B., 2021).

Further to the above, corporations are required to rapidly adjust and evolve in the area of digitalization while remaining competitive in the market. According to the findings of Chang and Meyerhoefer (2021), for every confirmed Covid-19 case in Taiwan an estimated increase of online sales of 5.7 percent and a 4.9 percent increase in the number of consumer were

reported, while the highest increases in demand were being mostly the ones for cereal, fresh fruits and vegetables and frozen goods. With numerous online consumers reporting a drop in income, it is no wonder that any secondary needs and expenses were put off, less expensive goods were more popular at the time and local businesses were preferred due to the uncertainty and unpredictability of the circumstances (Villi B., 2021).

Correspondingly, during the pandemic, all customers in Greece experienced substantial changes in their purchasing methods with a massive rise in e-commerce as well. Most specifically, statistics show that more than the one-third of Greek customers prefer to shop online in the form of click away by 27%, food by 21% and durables by 26%. Meanwhile, many customers still prefer physical stores over digital stores with the perception that both of them offer comparable benefits. Overall, online purchasing has become ingrained in Greeks everyday lives resulting in massive resources of new consumer data that yet to be explored (Mavros, 2021). According to Harkiolakis and Halkias (2006), Greek customers were not so familiar with online shopping prior the perception of digital shift being necessary. Previously, any initiatives to attract Greek customers to utilize and adopt electronic methods have failed to yield results. Because consumers in some regions appeared to have fewer options of online shops and facilities, they did not have enough incentives to do so. But, when compared to the pre-COVID-19 time, the relevance of telework, web conferencing, digital learning, and online health care services have increased significantly. Most specifically, the perceived significance and frequency of participating in online activities grew dramatically as a result of the pandemic (Mouratidis & Papagiannakis, 2021).

Given all of the above, we can conclude that the crisis encouraged globally the growth of internet commerce. Along with it a new type of digital customer has emerged, seeming to be more cautious, selective, less impulsive and demonstrating a tendency of frequent online purchasing in comparison to traditional purchasing. Consequently, it would be beneficial for businesses to explore the risks derived from the changes in consumer perceptions, attitudes and online shopping behaviours while aiming to build customer trust (Habib & Hamadneh, 2021), as we are going to analyse further in the current study.

2.4. Business Risks

The pandemic has transformed our lives, while several of these massive changes we have been witnessing globally will probably leave a lasting impact. The consumer environment of the future will be fundamentally different from what we are accustomed to and corporations who are able to recognize and respond to these changes in a reasonable timeframe will stand out and prosper in this modern reality (Singh & Singh, 2020). The COVID-19 crisis altered global economic development and posed a threat to businesses worldwide since all markets were disrupted with devastating repercussions. Many business sectors were separated from the economy and office-based employment was replaced with remote office work in order to maintain social distance. Many job descriptions have been altered to encompass important responsibilities and thereby aid in the maintenance of economic systems' health (Cepel et al., 2020).

Risk is implying an exposure to danger to which all individuals and organizations are exposed to every day (Morphy, 2018). The term "business risk" encompasses a wide range of issues and refers to any incident or scenario that might negatively affect the company from accomplishing its targets and objectives. Business risks could be categorized as internal, such as company's strategy, and external, such as the global economy (Borghesi & Gaudenzi, 2013). Learning more about business risks and how they are influenced by customer perceptions, attitudes, and online buying behaviour can help companies better manage and mitigate such risks in the Covid-19 era. Risk identification is considered to be a significant phase included in the risk assessment process. The goal of this stage is to establish a thorough list of risks based on incidents that might damage, disturb or postpone the fulfilment of desired outcomes. Through the analysis of a company's processes, risk identification approaches are meant to give the organization the competence to identify prospective unfavourable occurrences. The ultimate goal of risk identification is to determine how vulnerable a company is to uncertainty. It is, also, critical to understand that possible risks could be the lost opportunities or any inactive approach of the business when an active one would yield more success (Borghesi & Gaudenzi, 2013).

The scope and longevity of this pandemic appear to usher in a new era for societies, business sectors including retail and worldwide economy. Individuals' concerns about their well-being have consequences for merchants. As we have seen, according to studies, most consumers consider purchasing for groceries online more regularly that visiting physical stores but the desire to do so in the future is not guaranteed (Gu et al., 2021). When the pandemic is finished, consumers may continue to practice the behaviours they developed during the outbreak so retailers must discover the persistent behaviours that represent a true shift in consumer behaviour. For instance, if modern consumers learn to purchase online and determine that it's far more practical for them, companies may have to engage with a whole new generation of customers in a variety of ways which implies an operational risk (Pantano et al, 2021).

In addition, the sudden increase of digital tools usage may have an impact on the businesses due to the uncertainty of demand and supply chain (Haren & Simchi-Levi, 2020). The decrease in spontaneous everyday shopping, product shortages, production costs and the increasing demand of hygiene products are causing possible threats to retailers. Companies are having difficulties on planning ahead of time since they are trying to survive in an unknown and rapidly changing environment (Delivorias & Scholz, 2020). The pandemic's overall influence on consumer behaviour has considerable effects on business entities. Companies find it hard to justify their pricing policies by providing reasons which are no longer relevant or important to consumers in this new reality. Even though a plethora of studies on online customers are available, the elements that impact buying behaviour are still poorly defined (Gu et al, 2021).

During the COVID-19 pandemic, Didier et al. (2020) investigated the subject of supporting enterprises in dormant state. They note the pandemic's severe economic impact on countries throughout the world, as well as the halting of corporate operations. They deny that the expectations for a problem-free operation of businesses following the pandemic might be rather high. According to the authors, businesses have halted financial flow, which might lead to inefficient financial collapse with long-term consequences. They mention major concerns

such as the malfunction of important connections between stakeholders, and the imbalance in supply networks. The authors also argue that managing credit risk and implementing rules with rewarding incentives are critical for businesses to thrive. Similarly, Cepel et al. (2020) conducted a study in order to assess the influence of the Covid-19 crisis on entrepreneurs' views regarding certain risks in the Czech and Slovak business environment. The study consisted of 1502 enterprises with 822 of them responding to business risks prior to the crisis and 680 responding during the crisis. The results exposed market, economic, and workforce risks to be the three most critical company risks before and after the crisis, however the most obvious changes in their views were in their perceptions of economic and workforce risks. More specifically, 35.7% of enterprises in Czech Republic and 35.3% in Slovakia ranked economic risk as one of the top three hazards prior Covid-19, however during crisis, the Czech Republic grew to 53.6% and Slovakia to 59.7%. On the other hand, workforce risk prior the pandemic had a score of 67.8% by enterprises in Czech Republic and 62.8% by Slovakia as one of the three most critical risks, while during the pandemic the percentages fell to 27.2% and 29.4% in Czech Republic and Slovakia respectively.

Moreover, Lu et al. (2020) investigated the impact of the COVID-19 crisis on enterprises with the goal of determining issues associated with work recovery and political concerns. Their sample size included 4807 enterprises in Sichuan Province. Due to a scarcity of epidemic mitigation supplies, personnel' incapacity to continue working, interrupted production lines, and decreased market demand, the majority of the firms were unable to continue functioning. Due to multiple fixed expenditures but only a little or no revenue, they identified liquidity risk as the biggest danger to corporations' viability. At the same time, publications on political risk and uncertainty imply, according to Hartwell and Devinney (2021), related potential issues that business will probably encounter in the future. That being said, increasing risks driven by political authorities and the phenomena of institutional instability, have altered the present market environment. This type of unpredictability has arisen as a result of the transfer of power from the market to the government during the Covid-19 outbreak. Uncertainty regarding the likelihood of a shift in laws and lack of understanding or communication about potential new policies have direct consequences on the operating conditions in the business sector (Hartwell & Devinney, 2021). Despite the fact that the SARS

and H1N1 viruses happened within the preceding two decades, Covid-19 was unlike anything experienced in the recent past and was a phenomenon that no living politician had ever encountered. The pandemic's spread was so rapid and unexpected, and the tension so distinct, that even established institutional processes had difficulty coping with it in terms of legislation. This unique situation resulted in widely disparate governmental reactions, with restrictions on business activities and mobility being imposed (de Bruin et al. 2020). While COVID-19 was a one-of-a-kind occurrence that is unlikely to occur again in the foreseeable future, it has raised political leaders' capacity to test the limits of established institutions. In periods of crisis, each leader's natural character traits and underlying instincts are being displayed in order to influence policymaking – and as shown during the quarantine – allowing them to go beyond the institutional procedures created for typical situations by undertaking unprecedented measures that might have been inconceivable a year before (Hartwell & Devinney, 2021).

Given the above, Tam et al (2021) suggest that in order to fully comprehend the hazards and influence of Covid-19 on enterprises, especially smaller ones, would be beneficial to examine the history of significant COVID-19 incidents and their effects on them, since official statistics of the impacts are presently unavailable and may not be available for several years to come. Firstly, at the very first wave of the pandemic, financial and operational risks were apparent due to the reduced mobility and governmental prompts to remain at home followed by the mandatory closure of non-substantial firms (Tam et al., 2021). Secondly, while economic risk remains in the forecast, workforce, health risks and growing administrative expenses are added to the list as a result of limited customer capacity in the physical stores and the additional hygiene measures required. Generally, businesses perceive risk as a type of potential loss; hence they need to be aware of risks in terms of performance, finance, health, society, psychology as well as time. A purchase that does not achieve the expected or intended result is associated with performance risk while financial risk is defined as the likelihood of financial loss, which includes the possibility of having to replace, repair or compensate for services or items. Similarly, the term health risk refers to the possibility that the purchase will put the individual's health in jeopardy (Pantea Foroudi et al, 2021).

Overall, coronavirus serves as an excellent wake-up call. It has underlined how vulnerable businesses are and wreaked havoc on the supply chains both locally and internationally (Rodrigues et al., 2021). Furthermore, it has highlighted the interconnection of the government, business and the society and how fragile are the connections between them facing a global pandemic (Sheth, 2020). It is actually thought that this global economic downturn will turn out to be unlike anything seen since the Great Depression of the 1930s (Villi B., 2021). Without the use of the internet and smart devices it seems difficult, almost impossible, to conceive how businesses might function nowadays. So, facilities that take all of the above into consideration by applying satisfactory hygiene standards, devising tactics targeted to reduce consumers' risk and uncertainty perceptions and at the same time being able to communicate that to their customers, are expected to be one notch ahead in the market (Villi B., 2021; Delivorias & Scholz, 2020).

Chapter 3
Methodology

The research approach used in any paper has a massive impact on the validity and reliability of our findings and ultimately our conclusions (Karros, 1997). The purpose of this chapter is to examine the study's methodological approaches and procedures. This chapter is divided into several sections addressing the Research Questions, the Research Design which includes the approach, the type and data collection method followed along with the sampling strategy and instrument design. Lastly, we will briefly state the actions taken for the pilot testing along with the ethical considerations taken into account for constructing the research.

3.1. Research Objectives

Many researchers have previously studied consumers' attitudes and online shopping behaviours, but there is insufficient literature on the topic in relation to Covid-19. The aim of the research is to provide new knowledge on Cypriot customers that can be valuable to firms, stakeholders, and even governmental entities. The primary goal of this research is to provide an overview of the most prominent risks in the Cypriot market based on customer perceptions, attitudes and online purchasing behaviours.

Scientifically, the information and data gathered could be considered useful in terms of laying the groundwork for future research. More specifically, because it is a new phenomenon, the information gained from this research will be able to achieve new insights, provide a description of the current characteristics of the sample, and gain familiarity with the subject.

In practice, organizations will be able to use these findings for informational or technical purposes as needed, such as re-evaluating any business processes, implementing mitigation mechanisms and becoming more aware of their target audience. Furthermore, the identification of significant risks can provide a sense of security in the business world during these uncertain times as well as more control over future events.

3.2. Research Questions

In order to be able to identify and analyse the most crucial business risks that arise from the three axes analysed in the literature review – consumer attitudes, perceptions and online shopping behaviour - the study will attempt to answer the following:

- Identify consumers' social behaviour during the pandemic
- Identify consumers' attitudes during the pandemic
- Examine consumers' online shopping behaviour during the pandemic
- Examine consumers' perception towards risk
- Evaluate whether any behaviours or attitude changes will be sustained in post-pandemic
- Attempt identifying and evaluating the business risks that emerge by all the above.

3.3. Research Design

Following the establishment of the research's goal and questions, the data collection methods need to be defined. The researcher conducted primary research with the intention of obtaining reliable and objective data.

3.3.1. Research Approach

This dissertation makes use of quantitative research strategy, where the research philosophy applied has been that of positivism. Saunders et al. (2009) define research philosophy as a set

of beliefs about how information regarding a phenomenon should be gathered, examined, and applied. Positivism is based on measurable data that can be analysed statistically. Furthermore, in positivism surveys, the researcher is detached from the investigation making sure that the findings are entirely unbiased. When conducting research, independent implies that you engage with your study subjects as little as possible. In other words, positivist studies are completely fact-based and assume that the world is external and objective (Saunders et al., 2009). In our case, positivism seemed the most appropriate in comparison with other research philosophies due to the fact that we are looking for straightforward consumer patterns and aim to identify the behaviours and their effects on corporations rather than striving to identify the reasoning behind their actions.

Moving on to the research approach regarding the theory development, the deductive approach has been applied. Since we have already examined a broad section of the existing literature related to our topic, the research is progressing towards a narrower level by evaluating the application of the literature review with collected data. Generally, deductive research begins with a well-established concept that is gradually developed with data and findings, inevitably making the investigation confirmatory in nature (Saunders et al., 2009), as in our case.

3.3.2. Research Strategy

Personal interviews, telephone or skype interviews, paper or online questionnaires, or a mix of the aforementioned, are some of the surveying methods available. For the purposes of this research and based on the aims of the study, we have decided to use survey as our preferred research strategy with online questionnaires being the primary data collection instrument. Secondary data have already been collected, from journals, books, websites, articles and reports, and presented in the literature review above. Adding on to the existing secondary data and based on these findings, we are going to attempt extracting our own data targeted on consumers located in Cyprus.

Online questionnaires are considered to be a reliable and rapid way to gather data from a large number of people in a short amount of time, thus they were considered an optimal tool for the purposes of this study. This is especially critical when working on projects with several research questions and time being a primary constraint of the research (de Vaus, 2016). Another aspect of our research strategy is the time horizon of the study. The cross-sectional study design is going to be utilized for this research purposes rather than the longitudinal. A cross-sectional study is distinguished by the ability to compare distinct demographic groups at a particular moment in time without interfering with the research environment. This implies that the researcher has the advantage to compare many variables at once with little or no additional expense while on the other hand longitudinal studies take longer to complete and require the same sample of the population taking part in the research (Olsen & St George, 2004). Our study requires data for a specific timeline which is the pandemic era, faced in the present time, thus for the majority of the questions, the reference period is the day in which the interview is conducted. The questionnaire does, however, include a few questions about customer behaviours referring to the past 12 months since the pandemic started and some referring to the time after the pandemic, but only for comparison references.

3.3.3. Sampling Strategy

Sampling is a method of choosing individuals or a subset of the population in order to derive statistical conclusions and estimate population characteristics. In order to generalize the attributes of the entire population, the sample must be representative of the population as much as possible. In primary research, several sampling strategies are widely utilized so that researchers do not have to investigate the entire population in order to get significant insights (Olsen & St George, 2004).

Non-probability sampling approach is the one used in this research and more specifically the convenience sampling technique. The use of respondents who are "convenient" to the researcher is referred to as convenience sampling. There is no set procedure for obtaining these respondents; they might be found by simply asking individuals on the street, in a public facility, or at work, for example (Galloway, 2005). This survey's target population consists of

any individual aged 18 and above who is a resident of Cyprus and has a sufficient command of the relevant language in order to be able to complete the questionnaire.

3.3.4. Instrument Design

The questionnaire was created to be appealing to the responders, with a clear and structured format. A variety of scales have been utilized for the closed ended questions, such as the Likert scale, multiple choice questions and checkboxes. Overall, it is consisted of 31 questions which are divided in 4 sections. It is, also, crucial to note that since the respondents are situated within the European Union, the General Data Protection Regulation (GDPR) has been taken into consideration while conducting the survey by ensuring that the questionnaires are confidential and anonymous. The participants are informed regarding the privacy of their responses and the purpose of this research through the description of the questionnaire.

The first section of the questionnaire includes a set of demographic questions that aim to acquire information about the gender, age, country of residency, educational level, employment and marital status of the participant. The participant's personal profile is reflected through these demographic characteristics, so it is crucial to collect them in order to be able categorize our data and distinguish the derived patterns (Hughes et al., 2016).

The second section of the questionnaire aims to collect information regarding the consumers attitudes and perceptions during the Covid-19 pandemic. It specifically seeks to discover any occurring changes in their lifestyle between the era prior the pandemic and the era during the pandemic. The questions provide answers on the consumers' lifestyle as a whole, shopping behaviours regarding mobility, spending tendencies and prioritization. Apart from these, questions 12 to 16 target consumers' perceived risk by attempting to provide insight on preventive and avoidant behaviours.

Moving on, the third section of the questionnaire is targeted to online shopping behaviours. In this section, the researcher seeks to gather data regarding the frequency of online shopping activity, tendencies during the pandemic, perceived risk of online transactions and beliefs on

whether the availability of online stores in Cyprus is satisfactory. It is, also, important to mention that in order for the participant to be able to provide answers for this section, an online purchase in the last 12 months is a prerequisite. More specifically, if the participant chooses "no" as a response to the last question of section 2: "In the past 12 months have you purchased any goods or services via the internet?", then automatically the questionnaire skips the whole section 3 and moves on to the last section.

Finally, the last section concentrates on the sustainability of some social behaviours even after the pandemic ends. The questionnaire closes with a question addressing the level of conformity consumers are willing to take when facing a risky event such as Covid-19.

3.4. Pilot Test

Pilot testing or pretesting of the questionnaires before collecting any data is considered to be critical for the reliability of the study. Pretesting enables the researcher to detect questions that participants might have difficulty comprehending or discover flaws within the questionnaire that could lead to skewed results (Hilton, 2017).

For the purposes of this study, a pilot testing of the questionnaire was performed before it was released to the participants. More specifically, the questionnaire was administered to 6 individuals ranging from 20 to 50 years old. The researcher examined the level of simplicity regarding the access of the questionnaire such as the time needed for completing the survey, any difficulties over terminology or vocabulary used and clarity of the questions included. Our aim was to improve the quality of the questionnaire as well as the response rate.

The research's validity is demonstrated by the fact that it is based on already existing findings of the topic regarding customer attitudes, perceptions and online shopping behaviours. The questionnaire's questions are related to the study's goal, as explained in the previous sections, and the sample size (119 responses) is generally considered as adequate for quantitative research.

By taking the above into consideration, we can summarize all the key research design decisions mentioned previously according to the "Research onion" (Saunders et al., 2009) as shown in Table 1.

Research Design	
Philosophy	Positivism
Approach to theory development	Deduction
Methodological choice	Quantitative
Strategy	Survey
Time Horizon	Cross-sectional
Data Collection Method	Online Questionnaires

Table 1. Key design decisions according to the "research onion"
Source: Saunders et al., 2009

Chapter 4

Data Analysis

In this chapter we are going to present the findings of the research. The data was analysed using IBM SPSS Statistics 28.0. The questionnaire's replies have been coded and then introduced to the software for the creation of the database. We have conducted descriptive statistical analysis, from which percentages, frequencies and mean scores were derived. Lastly, non-parametric inferential statistical methods were applied, such as Kendall's Tau-b and Cramer's V statistic along with the use of cross-tabs, in order to discover further associations between variables. The results are mostly displayed in tables and charts for a better and easier interpretation.

As mentioned in the previous chapter, the purpose of this questionnaire was to try identifying Cypriots/Greeks consumers' social behaviours, attitudes and online shopping behaviours during the pandemic, detect any changes occurred in relation to prior the pandemic and evaluate whether any of these behaviours or attitudes will be sustained post-pandemic. Lastly, according to the obtained information the researcher will attempt identifying and evaluating the business risks emerging from all the above.

4.1. Reliability Analysis

Prior the analysis of the data it's critical that the objectivity of the study is being addressed. Not only should the study's findings be carefully considered, but so should the study's validity

and reliability. More specifically, validity is concerned with a measure's precision, whereas reliability is concerned with its consistency (Heale & Twycross, 2015).

The questionnaire's apparent validity is supported by the fact that the questions were chosen and considered in accordance to the previous theoretical research. The researcher made sure, by pilot-testing the questionnaire, that all instructions, questions and statements were well defined while simple language was employed with no usage of unknown terminology. Also, no uncompleted questionnaires, missing data or outliers were used in the analysis.

The consistency of a measurement is referred to as reliability. When completing a questionnaire, a participant should have about the same responses each time the same questionnaire is taken. Even though it is extremely difficult to offer a precise measurement of reliability, several metrics may be used to provide an assessment. Cronbach's alpha (a) is the most widely used test for determining an instrument's internal reliability and it is used with instruments that include questions with more than two answers such as Likert scale questions. Cronbach's values range between 0 and 1, while a score of 0.70 and above is considered satisfactory and accepted for further analysis (Heale & Twycross, 2015).

	Cronbach's Alpha	N of Items
Pandemic's Impact (Section 2)	0.779	9
Online Shopping Behaviour (Section 3)	0.708	6
Post-Pandemic (Section 4)	0.708	3

Table 2. Cronbach's Alpha Reliability Testing

The reliability test performed for our questionnaire, resulted in a value of Cronbach's alpha greater than 0.70, indicating a satisfactory internal consistency of the questions. More specifically, all Likert questions were used for Section 2 and 3 that indicate the overall impact of the pandemic and the online behaviours respectively. For the last Section though, only the first three Likert questions were taken into consideration due to the fact that when the last

question, "*You are willing to comply to any measure taken by the government in order to overcome the pandemic*", was added in the analysis, the value of Cronbach's alpha was lower than 0.70 which would not be acceptable. So, even though we did not include it in the reliability testing we are briefly mentioning its' results in the data analysis but we are not using it for any further analysis.

4.2. Description of the Sample

Demographics are generally a significant part of a research mainly due to the fact that they provide a comprehensive picture of a population's many traits (Hammer, 2011). In our case, the demographic characteristics include information regarding the gender, age, country of residence, educational level, employment status and marital status.

The questionnaire was answered by 119 respondents from which 65.5% are female and 33.6% are male (Figure 3). Also, a 0.8% did not want to provide this kind of information.
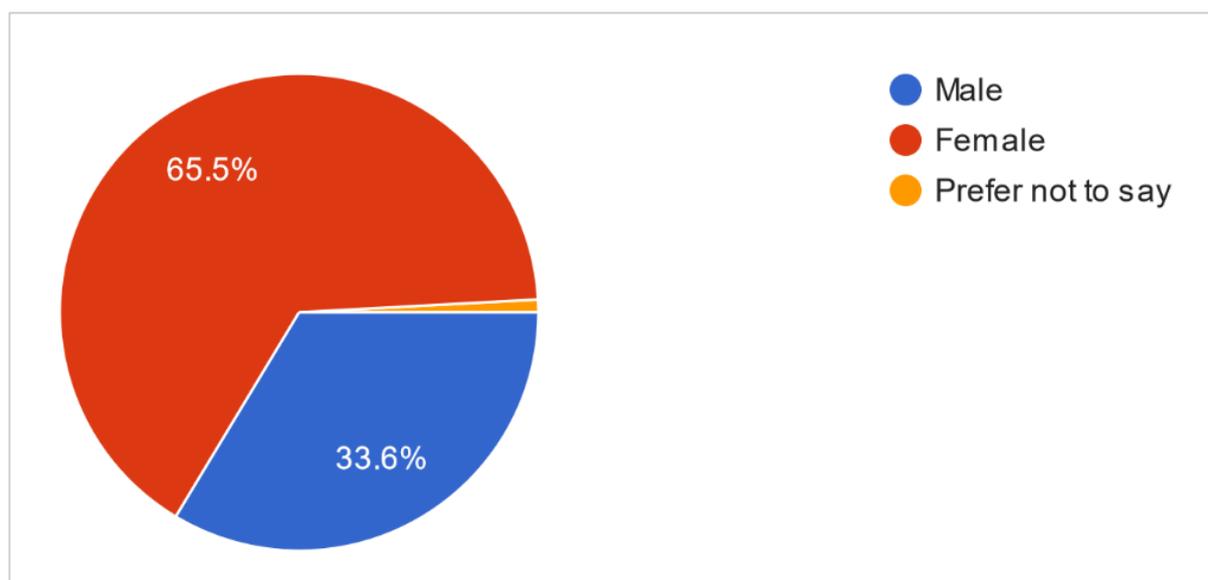
Figure 3. Gender of Respondents

Moving on to the age of the participants (Figure 4), we observe the age group 25-34 being the most prominent by a percentage of 42.9%, followed by the age group 18-24 with 23,5% and the group 35-44 with 11.8%. Lastly, 11.8% of the sample falls into the age group of 45-54 and 6.7% in 55-64. None of the participants fall into the category of 65+ and all of the sample provided a response to the said question.
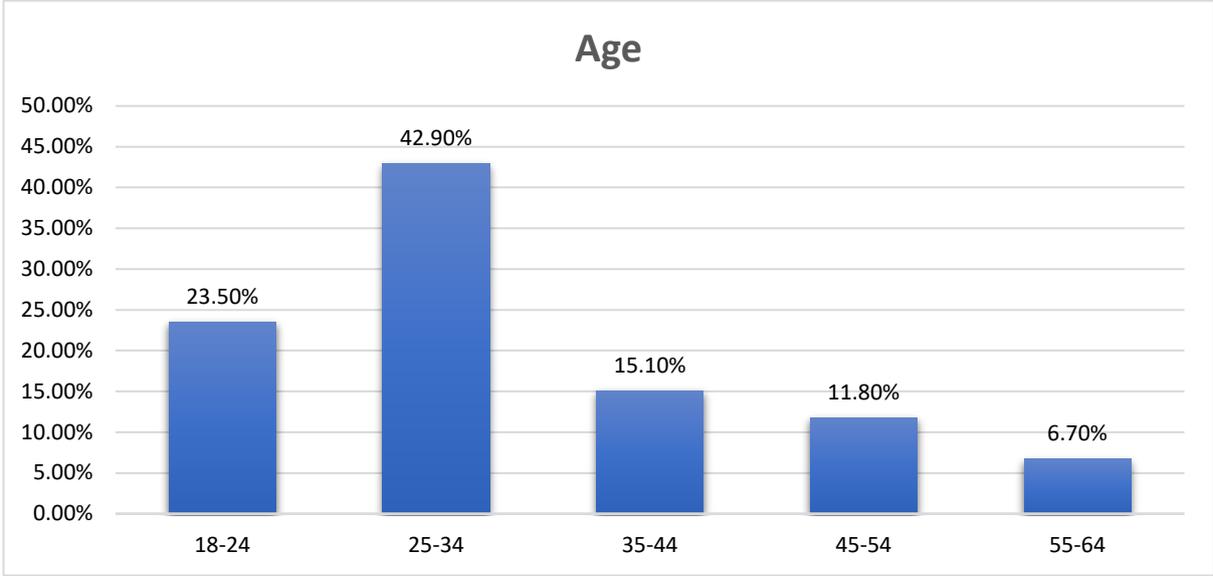
Figure 4. Age of Respondents

Figure 5, below, presents the participants' Country of residence. We observe that a 96.6% of the participants are Cypriot residents, 0.8% Greek residents while a 2.5% checked "other" as a response. For the current research, we are mainly interested in the people currently living in Cyprus or Greece, which leaves us with a total of 116 responses out of 119.
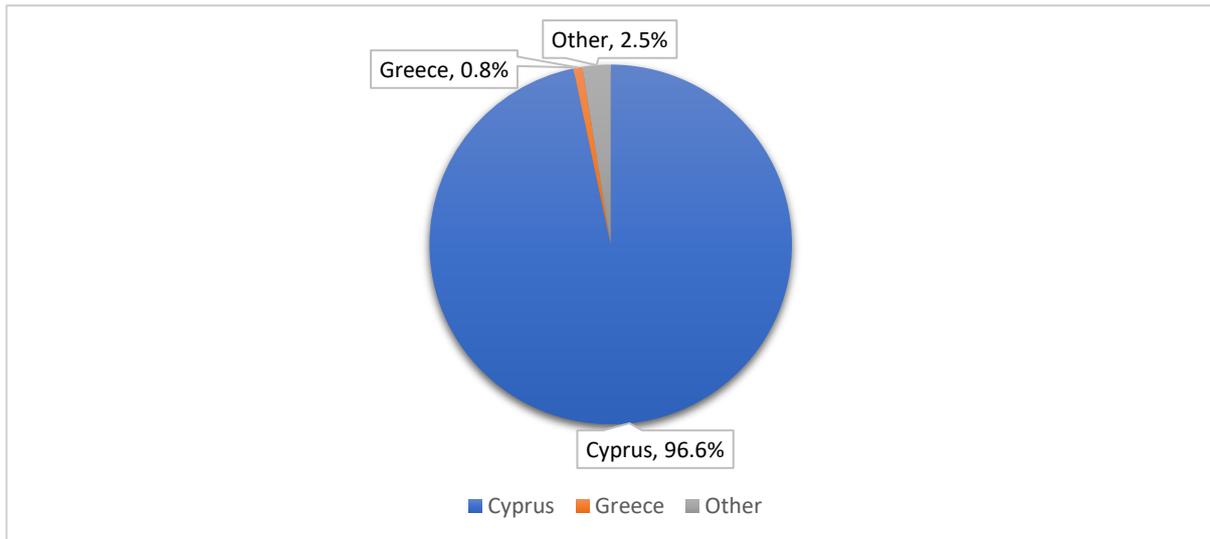
Figure 5. Respondents' Country of Residence

Figure 6 provides a description of the respondents' educational level. Overall, most of them are highly educated. This is clearly shown by the percentage of 76.5 which implies that 91 out of 119 participants own at least a bachelor degree out of which 33.6% own a master's degree and 1.7% a doctorate degree. The remaining sample consists of a 10.1% that own a high school degree, 10.9% have a collage/technical degree and a small percentage of 2.5% checked "other" as an option.
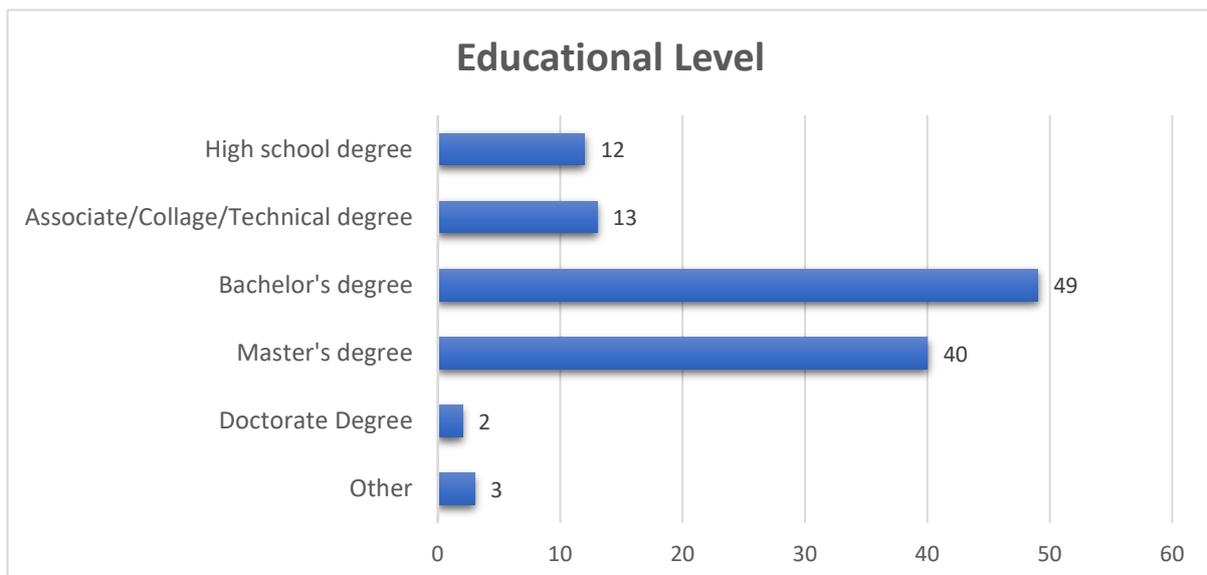
Figure 6. Educational Level of Respondents

Employment status, as Figure 7 indicates, is consisted of mostly full-time employees by a percentage of 60.5%, 18.5% students, 13.4% self-employed people, 5% unemployed, 1.7% part-time employees and finally 0.8% retired respondents.
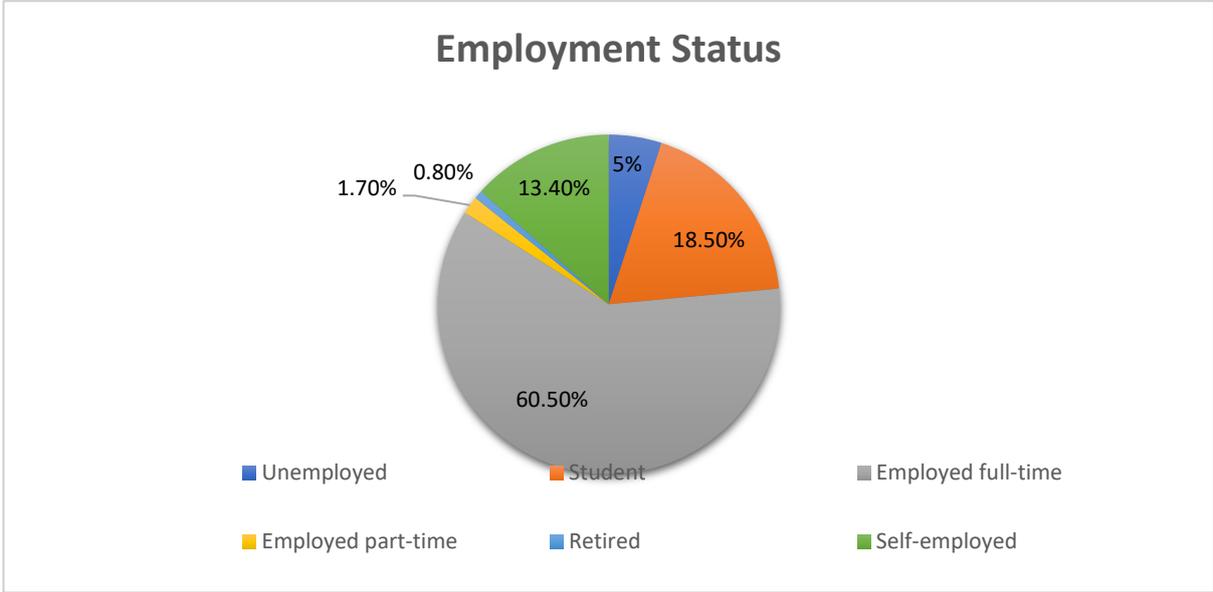
Figure 7. Employment Status of Respondents

The final question in the demographics section addressed the participants' marital status (Figure 8). The majority of the respondents are single by 54.6% followed by 37% married people and 4.2% divorced participants. A percentage of 4.2% preferred to not give an answer to the specific question.
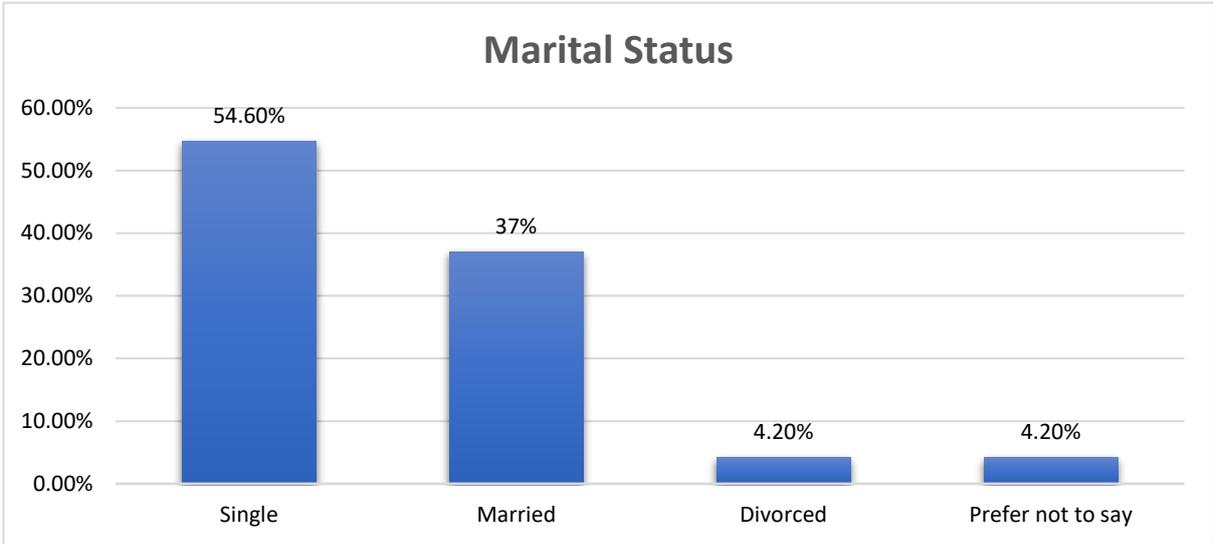
Figure 8. Marital Status of Respondents

4.3. Section 2: Impact of the Pandemic

The second component of the survey focuses on the virus's influence on the participants' lifestyle, particularly during the pandemic. The aim of this chapter is to identify consumers' tendencies regarding the social and economic impact of the pandemic and possibly determine whether there are any significant changes that could eventually create risks for the enterprise sector.

|		Strongly Disagree - Strongly Agree (percentage of respondents)					Mean Score
		1	**2**	**3**	**4**	**5**	
1	You shop closer to home and support local businesses	4.3%	5.2%	31.9%	28.4%	30.2%	3.75
2	You spend less money than you did prior the pandemic	3.4%	11.2%	25.9%	29.3%	30.2%	3.72
3	You schedule your purchases according to your current needs rather than buying impulsively	1.7%	12.1%	34.5%	28.4%	23.3%	3.59
4	You are delaying major purchases due to the pandemic	6.9%	15.5%	30.2%	24.1%	23.3%	3.41
5	The pandemic has increased your fear about your family's and your own safety and health	1.7%	4.3%	13.8%	29.3%	50.9%	4.23
6	You avoid congested areas	3.4%	12.9%	21.6%	28.4%	33.6%	3.76
7	You feel the need to be protected by taking preventative measures (e.g. wearing face mask)	1.7%	4.3%	8.6%	20.7%	64.7%	4.42
8	You are willing to alter your plans if you perceive a higher health exposure risk than you initially expected	4.3%	4.3%	19%	30.2%	42.2%	4.02
9	You try to spend much less time in the premises of the business compared to before the pandemic	6.9%	14.7%	27.6%	26.7%	24.1%	3.47

Table 3. Likert Scale Questions - Impact of Pandemic on Participants' Perceptions and Attitudes

Beginning with the first nine Likert scale items in Section 2 of the questionnaire, we are searching for changes in purchase or money spending behaviours, as well as avoidant and

preventative behaviours that are related to consumers' risk perception. Respondents were given a statement and asked to rate their level of agreement or disagreement on a scale of 1 to 5, with 1 being "strongly disagree" and 5 being "strongly agree." We employed descriptive statistics to analyse the data supplied for this part, as shown in Table 3.

In general, there is a trend for agreement in all of the statements provided by the researcher. We notice that all of the means are larger than 3, which is the neutral answer, and that the bulk of the responses lie on the right side of the scale, which includes the numbers 4, and 5. In addition, we see that the replies are quite concentrated and relatively close to the mean. This provides a sense of unanimity across the sample ensuring the accuracy of the means.

The first question, *"During the pandemic you shop closer to home and support local businesses"*, implies a change in the participants' everyday lifestyle through a regular and everyday activity such as shopping. With a mean of 3.75, participants tend to agree with the statement that during the pandemic, they preferred shops closer to their homes while supporting local businesses. The next three questions of this section are referring to the economic changes and impact of the pandemic. The majority of the participants agree with the fact that they spend less money than they did prior the pandemic, they prefer to schedule their purchases rather than buying impulsively and they delay major purchases due to the pandemic, with means of 3.72, 3.59 and 3.41 respectively. Interesting is the fact that for the fourth question, *"You are delaying major purchases due to the pandemic"*, even though the mean falls under the "agree" category, the responses are more concentrated around the neutral option which possibly means that Cypriots, even though they seem to spend less during the pandemic, they do not necessarily delay any major purchases.

Question five aims in identifying participants' perceived risk in terms of their own and their families' wellbeing. With a mean of 4.23, Cypriot participants strongly agree that the pandemic has increased their fear about their safety and health.

The next questions refer to the behaviours of the people in relation to the pandemic such as avoidant and preventative behaviours. More specifically, they agree with the statements *"During the pandemic you avoid congested areas"*, *"You are willing to alter or cancel plans if you perceive a higher health exposure risk than you initially expected"* and *"When you shop in person you try to spend much less time in the premises of the business compared to before the pandemic"* with means 3.76, 4.02 and 3.47 accordingly. By looking at question seven, *"You feel the need to be protected by taking preventative measures"*, we observe a stronger proclivity for preventative behaviours, with a mean of 4.42 indicating a strong agreement with the statement that participants feel the need to be protected by taking preventative measures such as washing their hands or wearing a mask.
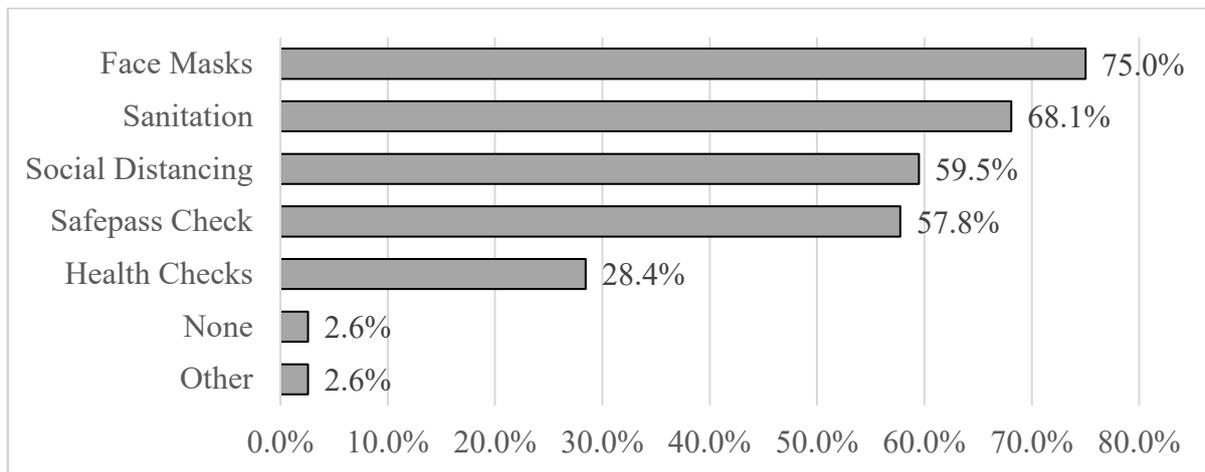
Figure 9. Measures a Business need to take in order for the participants to feel comfortable visiting in person

Moving on to Section 2, the researcher asked participants to *"provide information on the measures that a business should take to make them feel comfortable visiting in person"*. As shown in Figure 9, the question provided six options from which they could select as many as applied to them. By using a Pareto Bar Chart, we can identify face masks as the most common answer by a percentage of 75%, followed by hygiene and sanitation practices with 68.1%. Social distancing and safe pass checks were also popular choices with 59.5% and 57.8% respectively, while health checks, such as temperature checks, were the least popular choice by 28.4%. A very small percentage of 2.6 percent believe they do not need any measures to be taken in order to feel comfortable, while another 2.6 percent believe they require a

different measure than those provided. Through this question, we can still see the need for Cypriot consumers to protect themselves by incorporating preventative measures into their daily lives.
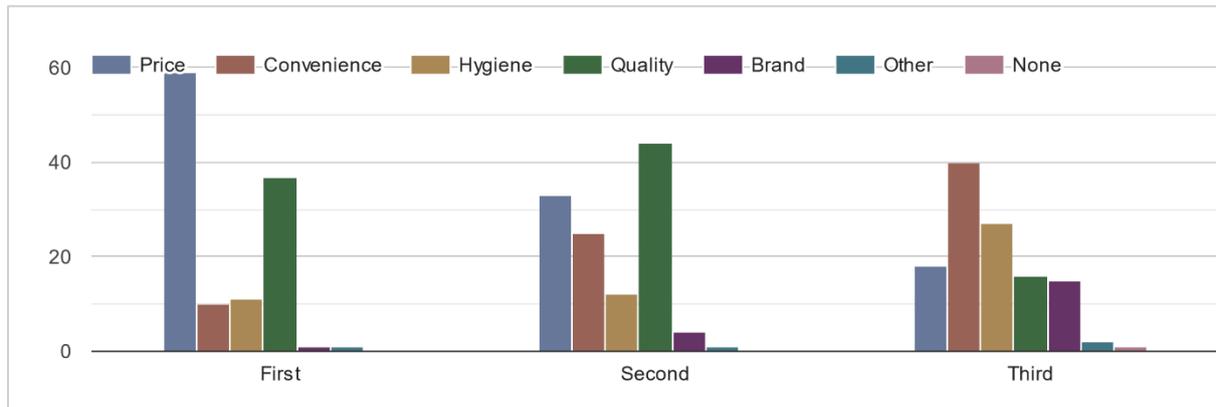
Figure 10. Primary considerations prior making a purchase

For the next two questions of Section 2, participants were asked to choose three of the available options and then rank them accordingly. Question 11 (Figure 10) required from the respondents to "*state their three primary considerations prior making a purchase*", with available options being the price, convenience, hygiene, quality, brand, other and none. According to the findings, price is the most popular first choice, with 57 participants choosing it as their primary consideration. Quality is the most popular second consideration among Cypriot/Greek consumers, with 42 votes, followed by convenience as a third consideration with 39 votes.
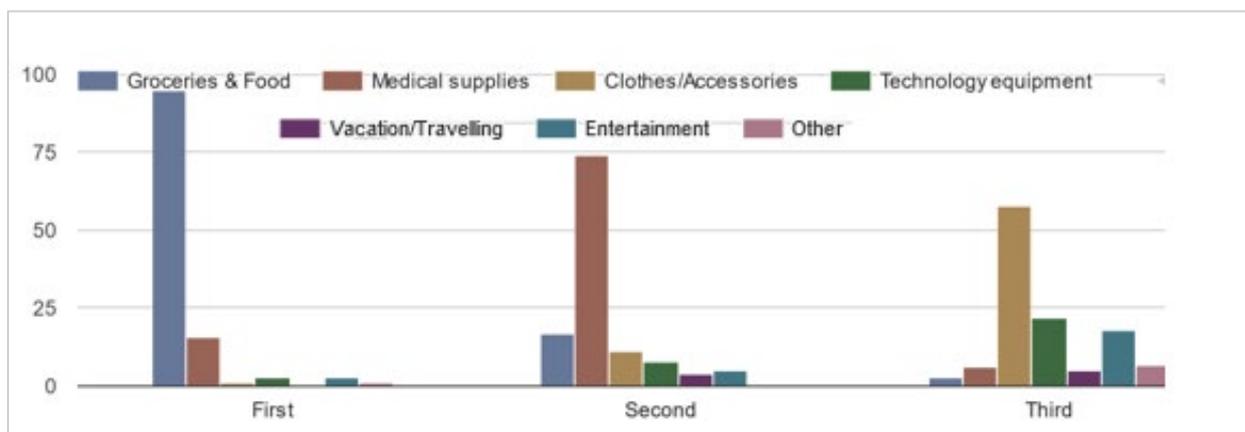
Figure 11. Purchasing priorities during pandemic

Maintaining the same format, next question focuses on consumer purchasing priorities, offering seven options: groceries and food, medical supplies, clothing and accessories, technology equipment, vacation and travel, entertainment, and other. Groceries and food received the most votes (93), followed by medical supplies (72), and clothes and accessories (57 votes) as their third purchasing priority. We can also observe that some of the respondents, specifically three in the first, eight in the second, and twenty-one in the third choice, chose technology equipment as a purchasing priority. In general, even though technology equipment does not fall into the category of essential products, it appears to be slowly gaining popularity during the pandemic.
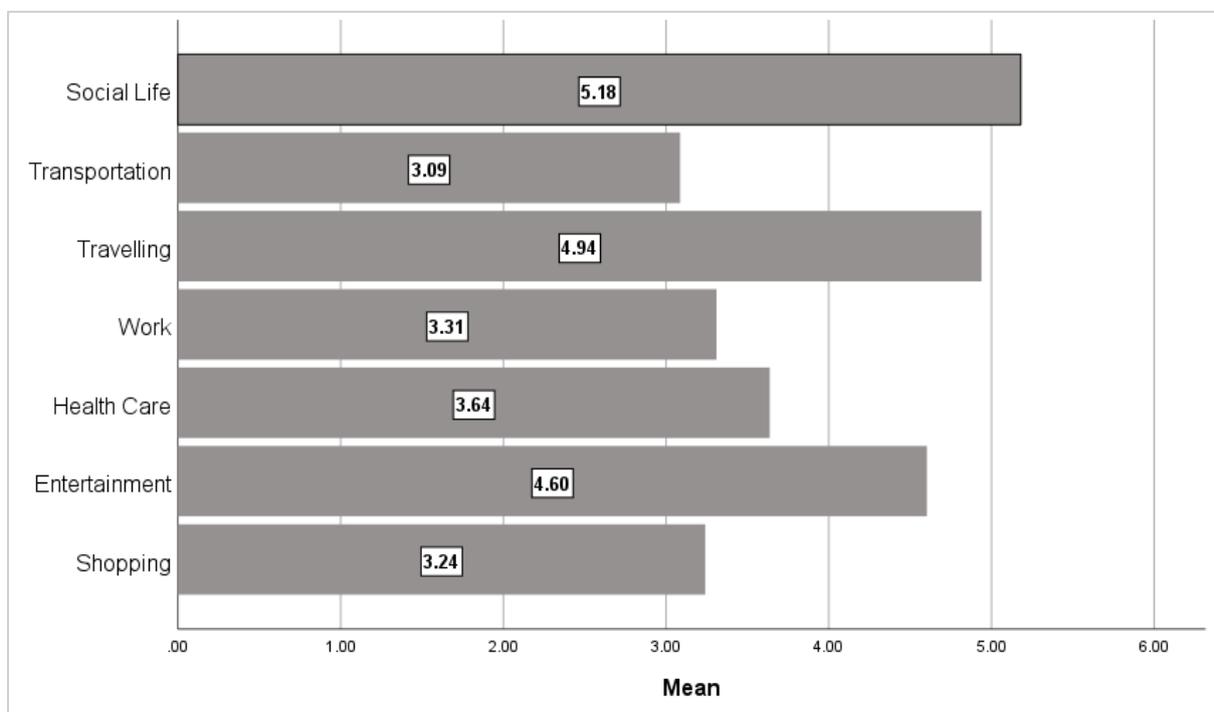
Figure 12. Most affected activities during the pandemic (Ranked)

Figure 12 displays a ranked type of question in which participants were asked to *"rank seven activities, with number one being the most affected and number seven being the least affected during the pandemic"*. To get accurate results for this type of question, we had to recode our data so that number one represented the least affected and number seven represented the most affected.

According to the sample, Social Life is the most affected type of activity with a mean of 5.18 while transportation/mobility, on the other hand, ranked last with a mean of 3.09. The fact that transportation was deemed the least affected activity may be due to the fact that most Cypriots do not use public transportation in their daily lives, as the majority of the population owns a car.

The second most affected activity is travelling with a mean of 4.94 followed by entertainment (mean=4.60), health care (mean=3.64), work (mean=3.31) and shopping (mean=3.24).

		Frequency	Percent
Online Shopping	Yes, from Cyprus	12	10.3%
	Yes, from another country	26	22.4%
	Yes, from Cyprus & another country	56	48.3%
	No	22	19.0%
	Total	116	100.0%

Table 4. Online Purchases in the past 12 months

Moving on to the end of Section 2, the researcher asked the participants "*if they had purchased any goods over the internet in the previous 12 months*". As can be seen, according to Table 4, 94 of the 116 participants have purchased goods online, with 12 purchasing from Cypriot retailers, 26 purchasing from retailers located in other countries, and 58 purchasing from both. The 22 participants who had not purchased anything online in the previous 12 months were unable to complete Section 3 of the questionnaire, so they were automatically moved to the final section.

4.4. Section 3: Online Shopping

The third section of the questionnaire is dedicated to internet purchasing habits.
The researcher is looking for information on the frequency of online purchases, trends during the pandemic, and perceived risks of online transactions.

		Frequency	Percent	Valid Percent
Online Shopping	Extremely Often	16	13.8%	17.0%
	Quite Often	35	30.2%	37.2%
	Moderately Often	22	19.0%	23.4%
	Slightly Often	12	10.3%	12.8%
	Not often at all	9	7.8%	9.6%
	Total	94	81.0%	100.0%
Missing	System	22	19.0%	
Total		116	100.0%	

Table 5. Online Shopping frequency

The first question requests for information about the participants' online shopping frequency (Table 5). The majority of them, 37.2 percent of the current sample which consists of 94 participants, support online purchasing quite often. Moderately often is the second most popular option, with 23.4 percent, followed by extremely frequently with 17 percent. Finally, 12.8 percent support shopping online slightly often, while 9.6 percent not often at all. In general, we can see that people are quite familiar with online shopping and have embraced it as a common activity, as evidenced by the questionnaire results, which show that more than half of the participants (54.2 percent) shop online quite to extremely often.

		Responses		Percent of Cases
		N	Percent	
Typical Online Purchases	Groceries	12	5.2%	12.8%
	Restaurant Deliveries	62	26.6%	66.0%
	Clothes/Accessories	69	29.6%	73.4%
	Medical Supplies	14	6.0%	14.9%
	Technology Equipment	42	18.0%	44.7%
	Entertainment goods	21	9.0%	22.3%
	Other	13	5.6%	13.8%
Total		233	100.0%	247.9%
a. Dichotomy group tabulated at value 1.				

Table 6. Type of products typically bought online

The next question *"What type of products do you typically buy online?"* refers to the participants' online shopping preferences and allowed the participant to select as many of the options provided that applied to them, as shown in Table 6.

In order to statistically analyse this question, it was needed to use the multiple response option in SPSS in order to define our variable sets. Each option was coded as a dichotomy with "0" as "not selected" and "1"as "selected". We then proceeded to calculate the frequency of the selected choices (N), calculate the proportion of selections accounted for by this category (Percent) and the proportion of participants accounted for by this category (Percent of cases) which represents the prevalence of that choice in the survey sample.

With 29.6 percent of votes, we can identify clothing/accessories as the most popular answer, followed by restaurant deliveries (26.6 %). Technology equipment appears to be the second most popular option, with 18 percent, followed by entertainment goods (9%), medical supplies (6%), other (5.6%), and groceries (5.2 %). By looking at the column 'Percent of Cases' we can still identify clothes/accessories as being the most popular choice among the sample.
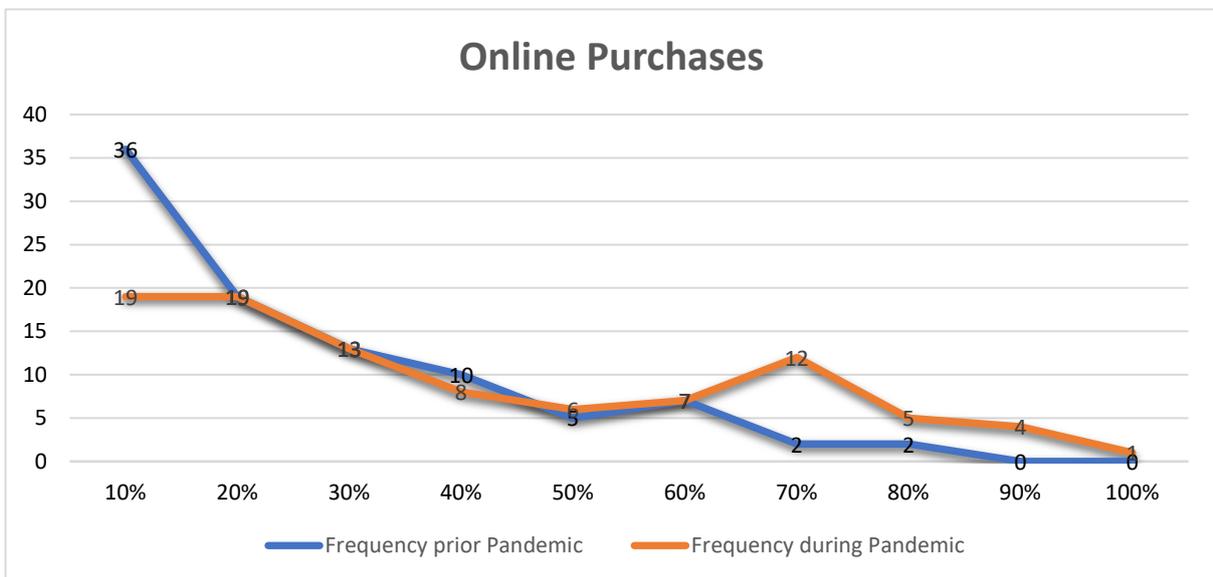
Figure 13. Online Shopping Frequency prior and during pandemic

Portion (%)	Online Shopping prior pandemic (%)	Online Shopping during Pandemic (%)	Changes (%)
10	38.3	20.2	-18.1
20	20.2	20.2	0
30	13.8	13.8	0
40	10.6	8.5	-2.1
50	5.3	6.4	1.1
60	7.4	7.4	0
70	2.1	12.8	10.7
80	2.1	5.3	3.2
90	0	4.3	4.3
100	0	1.1	1.1

Table 7. Observed Changes in Online Shopping frequency prior and during pandemic

The next two questions seek information on online purchasing habits prior to and during the pandemic. More specifically, the questions require from the participant to choose the percentage that demonstrates more accurately the frequency of their online activity in regards to purchases. Figure 13 depicts the frequency of responses, whereas Table 7 compares and calculates the changes identified between the two distinct time periods, prior and during the pandemic. The increase in the frequency of online shopping activity among Cypriot consumers is graphically apparent in Diagram 1 while, also, being arithmetically confirmed in Table 13. The first thing we notice is an 18.1 percent decrease in the 10% portion of online shopping and a 10.7 percent increase in the 70% portion of online shopping. Aside from that, there is a positive change between 70 percent and 100 percent during the pandemic, while there is a negative to zero change from 10 percent to 40 percent. In general, we can say that during the pandemic, consumers used online shopping tools more and incorporated them into their lifestyles more than they normally did.

		Frequency	Percent	Valid Percent
Concerns	Personal info security	6	5.2	6.4
	Bank acc. info security	31	26.7	33.0
	Misleading information	4	3.4	4.3
	Long Delivery	15	12.9	16.0
	Shipping Fees	18	15.5	19.1

	Damaged goods	6	5.2	6.4
	Other	7	6.0	7.4
	None	7	6.0	7.4
	Total	94	81.0	100.0
Missing	System	22	19.0	
Total		116	100.0	

Table 8. Biggest concern when shopping online

The following question is about the biggest concern a consumer has about online shopping. This was a multiple-choice question, and participants could select only one of the options shown in Table 8. Their first major concern appears to be the security of their bank account information, with a valid percent of 33%, followed by a concern for shipping fees (19.1%). After that, we have long delivery (16%), other (7.4%), none (7.4%), personal information security (6.4%) and damaged goods (6.4%).

		Strongly Disagree - Strongly Agree (Percentage of Respondents)					Mean
		1	2	3	4	5	
6	You feel confident purchasing goods/services via the internet from providers in Cyprus	3.2%	5.3%	25.5%	34%	31.9%	3.86
7	There are enough online options for shopping in Cyprus	8.5%	20.2%	40.4%	24.5%	6.4%	3
8	You prefer online options rather than visiting physical stores	10.6%	24.5%	28.7%	20.2%	16%	3.06
9	You will continue shopping online even after the pandemic ends	5.3%	2.1%	21.3%	23.4%	47.9%	4.06

Table 9. Likert Scale Questions-Online Shopping Behaviour

Table 9 shows the final four questions from Section 3 that are related to online shopping. Question 6 *"You feel confident purchasing goods or services via the internet from providers in Cyprus",* reveals that Cypriot consumers are generally confident in purchasing goods via the internet from Cyprus-based providers, with a mean of 3.86, and that the majority of them will continue shopping online even after the pandemic is over (mean = 4.06). They are quite

neutral in terms of the number of online shopping options available in Cyprus, as well as their preferences for online versus physical stores, with means of 3 and 3.06, respectively.

4.5. Section 4: Post-Pandemic

Moving on to the final section of the questionnaire, the researcher hopes to gather information about post-pandemic consumer behaviours in order to draw conclusions about whether they will have an impact on businesses.

		Strongly Disagree - Strongly Agree (Percentage of Respondents)					Mean
		1	2	3	4	5	
1	The pandemic will leave a remarkable impact on your lifestyle	3.4%	10.3%	16.4%	28.4%	41.4%	3.94
2	You will continue to avoid crowded areas after the pandemic ends	20.7%	23.3%	30.2%	17.2%	8.6%	2.7
3	You will continue to take preventative measures after the pandemic ends	10.3%	19.8%	19%	25.9%	25%	3.35
4	You are willing to comply to any measure taken by the government in order to overcome the pandemic	17.2%	12.1%	23.3%	17.2%	30.2%	3.31

Table 10. Likert Scale Questions - Post-Pandemic behaviours

The first question reveals a tendency to agree with the statement that the pandemic will have a significant impact on participants' overall lifestyle. This primarily demonstrates that Cypriot consumers have noticed the difference Covid-19 has made in their lives, and they recognize that things may not be the same as before anytime soon, if ever. Questions 2 ,"*You will continue to avoid crowded areas after the pandemic ends*" , and 3, "*You will continue to take preventative measures after the pandemic ends",* are related to avoidant and preventative behaviours, as we have seen in Section 1, in regards to the aftermath of the pandemic. Interesting is the fact most Cypriots do not agree with continuing to avoid crowded areas after the pandemic ends, but they do agree with continuing to take preventative measures. In

general, we observe a preference for preventative behaviours which should be taken into consideration by businesses operating in Cyprus.

4.6. Association between Research Variables

To identify the association between the research variables, inferential statistics were applied. Kendall's Tau-b correlation coefficient, in particular, was used to identify any relationships between the ordinal scale variables and, ultimately, to measure the strength of the relationship. Kendall's Tau-b findings can range from -1 to 1, with 1 indicating a perfect positive association, -1 indicating a perfect negative relationship and 0 indicating no overall ordinal relationship at all. Moreover, the findings are statistically significant if the p-value is less than or equal to 0.05, and we can be certain that the difference is not attributable to chance alone (Newson, 2002). We can interpret the strength of the association by using some general guidelines. If the value is less than 0.10 is considered to be very weak, 0.10-0.19 is weak, 0.20-0.29 is moderate and 0.30 and above can be described as strong (Botsch, 2011).

4.6.1. Perceived Fear

As mentioned in the literature review, various studies have found a link between increased fear or perceived risk and behaviours such as a high engagement in risk reduction measures (Pantano et al, 2021) or in avoidant behaviours (Singh & Singh, 2020). To test whether such associations apply to our sample, we used Question 5 of Section 2 of the questionnaire, which states, "The pandemic has increased your fear about your family's and your own safety and health." as a dependant variable indicating Cypriot consumers' perceived risk and fear (Table 11).

Kendall's Tau-b		Spending less money	Avoidant behaviours	Preventative behaviours	Spending less time in the premises of a business
Increased fear	Correlation Coefficient	.168*	.365**	.333**	.453**
	Sig. (2-tailed)	0.036	0.000	0.000	0.000
	N	116	116	116	116
*. Correlation is significant at the 0.05 level (2-tailed).					
**. Correlation is significant at the 0.01 level (2-tailed).					

Table 11. Kendall's Tau-b Correlations in regards to Fear

First, there is a link between perceived fear and spending less money during the pandemic. We observe an association (p-value = 0.036 < 0.05) with a weak positive correlation (τb = 0.168) between the variables. Cypriot consumers have a weak tendency to spend less money as their perceived fear rises.

The second variable we chose to examine is question 6 in Section 2, which indicates an inclination for avoidant behaviours such as avoiding congested areas during the pandemic. The correlation remains significant (p-value = 0.001 < 0.05), with a strong positive relationship (τb= 0.365). This demonstrates that when Cypriot consumers' fear level rises, they are very likely to engage in avoidant behaviours.

The third variable explored has to do with the adoption of preventative behaviours such as washing hands frequently or choosing to wear protective masks. Again, we observe a significant correlation (p-value = 0.001 < 0.05) with a strong positive relationship (τb = 0.333) which reveals that consumers engage in preventative behaviour as their fear level rises.

Finally, we want to see if the sample spends less time in a business's premises compared to before the pandemic. With a positive relationship of τb = 0.453, this appears to be the strongest correlation of all of the above (p-value = 0.001 < 0.05). So, as a result of the increase of the perceived risk, consumers tend to spent less time in the premises of a business.

4.6.2. Demographics' Associations

Moving on, we are going to explore whether any further associations can be found in the data in comparison with the demographics. More specifically, age, gender and marital status was explored (Table 12).

4.6.2.1 Age

Kendall's Tau-b		Preventative Behaviours	Avoidant Behaviours	Spending less time in the premises of a business	Frequency of online shopping	online purchases % prior pandemic
Age	Correlation Coefficient	0.159	0.098	.223**	.179*	-.193*
	Sig. (2-tailed)	0.050	0.206	0.004	0.040	0.024
	N	116	116	116	94	94
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Table 12. Kendall's Tau-b Correlations in regards to Age

Firstly, no correlation was found between age, preventative and avoidant behaviours. No relationship still indicates important results, meaning that despite the age, Cypriot citizens engaged in both preventative and avoidant behaviours during the pandemic.

The next variable explored is Question 9 (Section 2), *"When you shop in person you try to spend much less time in the premises of the business compared to before the pandemic"*. A moderate positive association with age is being observed (p-value=0.004<0.05) with τb = 0.223. As the age of the participants increases, it is a little more likely for the participants to agree with the statement. More specifically, ages of 45 and above seem that they are more likely to prefer spending less time in the business premises during the pandemic.

Question 1 (Section 3), *"How often do you buy products online?"*, refers to the frequency of the online purchases of the participants who already stated they purchased goods or services via the internet in the past 12 months. A weak correlation ($\tau b = 0.179$) is shown between the age and the frequency. Due to the fact that "extremely often" was represented by "1" and "not often at all" by "5", these results actually prove that the frequency of online purchases slightly tends to decrease while the age increases.

The final variable is Question 4 (Section 3), *"What was the proportion of your total online purchases before the pandemic?"*. Interesting is the finding that a weak negative correlation appears to exist ($\tau b = -0.193$), showing that as the age decrease, the percentage of the online purchases prior the pandemic was increasing, proving the previous point. But, even though, prior the pandemic, younger participants' online purchases were at a slightly higher percentage than the online purchases of the older participants, for the online purchases during the pandemic no such correlation is being observed.

Age group	Did not purchased online in the past 12 months
18-24	11.00%
25-34	12.24%
35-44	16.70%
45-54	28.57%
55-64	75.00%

Table 13. Percentages of Participants that did not engage in online purchases in regards to their Age

Finally, an important finding demonstrates a positive correlation between age and the likelihood of making an online purchase (Table 13). Using a cross-tabulation, we calculated the percentages of participants who did not make an online purchase in the previous 12 months based on their age group. It was discovered, in particular, that as people get older, they are less likely to use the internet to make purchases.

4.6.2.2. Gender and Marital Status

Moving on to the remaining demographic variables, gender and marital status, we will examine any associations observed with questions related to online shopping in the previous 12 months and the participants' main concern while shopping online.

Because all of the above variables are nominal with two or more values per category, the researcher decided to use the non-parametric test of Cramer's V to test the relationships between the variables (Table 14). In examining the strength of the relationship between two categorical variables that are not dichotomous, Cramer's V statistic is more appropriate. Cramer's V has a value between 0 and 1, with no negative values. A value close to 0 indicates no relationship, whereas a value greater than 0.25 indicates a very strong association (Akoglu, 2018).

		Online Shopping in the past 12 months	Biggest concern when shopping online
Gender	Cramer's V	0.096	0.296
	N of Valid Cases	116	94
Marital Status	Cramer's V	0.152	0.298
	N of Valid Cases	116	94

Table 14. Cramer's V Associations

Initially, a weak association exists between gender and online shopping in the last 12 months, indicating that males are slightly more likely to purchase online from retailers located in another country, whereas a strong association exists between marital status and online shopping. While both single and married people are choosing to use online tools to make purchases, we find that single people are more likely than married people to purchase goods or services from another country rather than Cyprus.

Participants' biggest concern when shopping online showed very strong association with both gender and marital status. More specifically, females (42.6%) were 3.4 times more concerned about account security information than men (12.5%). Men's concerns were more scattered, with shipping fees and long delivery ranking first and second respectively. When it comes to marital status a strong inclination of single people towards shipping fees is observed. Apparently, single people (27.5%) were 2.4 times more concerned about shipping fees than married people (11.4%), whereas married people were primarily concerned about the security of their bank account information.

Chapter 5

Discussion & Conclusions

Many researchers studied the consumer perceptions and attitudes along with their online shopping behaviours, as we have already seen in the literature review, however the changes that arise due to the recent pandemic of Covid-19 still need to be further explored (Rodrigues et al, 2021). It is important for a business to understand consumer perceptions and attitudes during a high-risk event such as a global pandemic in order to become aware of the common tendencies and be prepared to face the risks that come along with them.

The study contributes to the existing literature by identifying consumers' social behaviour, attitudes and online shopping behaviour during the pandemic in Cyprus. It also examines consumers' perceptions towards risk and attempts to evaluate whether any behaviours will be sustained post-pandemic. Since we have already stated the results of the research in the previous chapter and already given an overview, we are going to further discuss their meaning and importance in relation to our research questions. The final objective of this study is the identification of possible risks that are driven by consumers' perceptions, attitudes and online shopping behaviour during Covid-19. It is important to emphasize that the risks we are going to highlight may not apply to each and every enterprise in Cyprus due to differences, such as the industry in which a company operates or its size.

5.1. Consumer Perceptions and Attitudes during Pandemic

Our findings demonstrate that the primary considerations prior to making a purchase are price, quality and convenience, in that order, which imply a financial risk in the types of

possible liquidity risk and market risk. These results do not necessarily agree with the findings of Gu et al. (2021), who claim that hygiene has risen to the top of the purchasing criteria list. More specifically, 8.6 percent of the sample chose hygiene as a first choice, 10.3 percent as a second choice, and 22.4 percent as a third choice. So, while there has been an increase in participants' preference for hygiene, it does not appear to have risen to the top of their considerations. Furthermore, participants tend to agree on making more planned purchases rather than impulsive ones, as well as spending less money during the pandemic, confirming the findings of Baker et al. (2020) and Gu et al (2021). Subsequently, we have already observed that the purchasing priorities of Cypriot residents during the pandemic were groceries and food, medical supplies and clothes, which confirms the findings of Villi (2021) that travelling or, in our case unnecessary expenditures, are more likely to be postponed during the pandemic and not be considered as a priority, as well as the fact that there was an observed revenue growth in the sales of markets related to food and medical supplies. Markets unrelated to food, medical supplies or health services are more prone to liquidity and market risk because even though there is a little tendency for Cypriot participants to agree on delaying major purchases, they still agree on spending less money and focusing on essential products as their purchasing priorities during the pandemic. This conclusion is also supported by the information gained from their classification about the most affected activities. Socializing, traveling, and entertainment are the most popular options, confirming previous findings. There are obvious similarities with Greek consumers as well. Their main concern is the economic impact of the pandemic, while price is the most important factor in their purchasing decisions. Furthermore, people prefer to spend less by prioritizing their essential needs. (Mavros, 2021).

Fear is another important factor that can influence consumer decisions and eventually create health, operational and government risks for the businesses. The increased fear caused by the virus, which is profound in the vast majority of the sample, is a significant finding of this study which initiates possibilities for health risks among corporations. Individuals express a preference for shops closer to their homes, while older generations, in particular, aim to spend less time in the premises of a business due to perceived fear. This finding is in line with the results of Golec et al. (2020), who discovered that people are more afraid to go outside

during the pandemic while attempting to reduce the frequency of grocery visits. Another noticeable finding of the study is the link between perceived fear and a strong proclivity for preventative and avoidant behaviours. Regardless of age, Cypriot consumers choose to engage in risk-reduction measures such as avoidant and preventive behaviours, with a stronger preference for preventative behaviours such as wearing a mask, washing their hands more frequently, or maintaining a social distance. The finding is illustrated more clearly by the samples' choices regarding the measures that a business must take in order for them to feel safe being in their premises. The vast majority of consumers ranked face masks, sanitation practices, and social distancing as the top three requirements for feeling safe. Lastly, consumers are willing to alter their plans if they perceive a higher expected risk than they anticipated, which is consistent with the findings of Villi (2021), who found that, in their case, travellers were willing to change or cancel their plans if the destination involved appeared to anticipate a higher risk than expected.

So, since the consumers' vulnerability in regards to their health and safety has shown an increase, merchants are required to provide options for the accommodation of the consumers in order for them to feel safe being in the premises of their business or using their products or services. These alterations and needs for different approaches may arise operational risks such as process or model risks along with health risks for the majority of the businesses. The way corporations have been operating so far needs to be reconsidered in terms of supply chain disruptions, shipping and transportation. Thus, processes and models that underpin business activities need to be re-evaluated in order to become sufficient to support the corporation during and after the time of the pandemic. Furthermore, as most consumers have proven, they value a sense of conformity and safety. Coherently, if people are eager to follow any restrictions and regulations on a personal level, they will prefer businesses that are accountable for governments' measures and have the ability to quickly implement them, hence government risk is expected.

5.2. Online Shopping Behaviour during Pandemic

The next part of our research is focused on online shopping behaviours, preferences and concerns. Interesting are the findings regarding the percentage of consumers' online purchases in regards to their total purchases prior and during the pandemic. We can confirm that online purchases have been increased during the pandemic, as suggested by other researches as well (Mouratidis & Papagiannakis, 2021; Villi, 2021), leading to further possible operational and technological risks. Online shopping familiarity can also be confirmed by taking into consideration the most prominent answer regarding the frequency of online purchases which is "quite often". So, most participants who admitted utilizing online channels for their purchases are common internet consumers which is coming in contrast with previous findings supporting that the pandemic had no significant influence on customers' desire to adopt online shopping behaviours in Saudi Arabia (Salem & Md Nor, 2020). The most prevalent products purchased online was found to be clothes and accessories along with food in the form of restaurant deliveries. We partly agree with previous findings regarding food being purchased more frequently online but not in the form of groceries (Gao et al.,2020). The majority of Cypriot consumers seem to still be quite unfamiliar with purchasing groceries online, even though the explanation given by Rodrigues et al. (2021) that people living in severely impacted areas are much more likely to choose online channels for their grocery shopping than physical visits, could possibly provide an explanation for our case. In general, we find that, while Cypriots are quite confident purchasing online from Cyprus-based providers, they neither agree nor disagree that there are enough online options, and they do not show a strong preference towards online shopping over visiting physical stores.

Various concerns towards online transactions prevail in the sample. While a very small percentage (7.4%) stated not having a single concern when shopping online, the majority of the participants admitted worrying about their bank account information security. More specifically, females were more prone to be concerned about their account security information than men. Also, single people were found to be more worried about shipping fees than married people. According to our findings, technology security risk is being derived

by consumers' concerns when shopping online. Even though Cypriots are familiar with online shopping they are aware of possible risks and they would probably not choose to purchase online from a business which does not have the proper security and safety systems in place.

Lastly, according to our findings, there is a correlation between age and online purchases. Our findings are consistent with those of other researchers who have found that age does have a negative impact on the likelihood of purchasing groceries online – even though we did not narrow online shopping down to grocery online shopping – but once older people engage in online activity, they become consistent on future online shopping plans (Jensen et al., 2021). When the participants were asked whether they planned to continue shopping online no correlation between age and a specific preference was observed, confirming the fact that older people will be continuing their purchases despite their initial low engagement.

These findings are significant in terms of the reality that corporations located in Cyprus should include online shopping as a purchasing option nowadays, as it is becoming increasingly popular, particularly among the younger generations, whilst still being aware of the possible risks. Since the outbreak of the pandemic, supply-chain stability has gained increased significance for e-commerce platforms, thus creating operational risks with the possibility of technological failures disrupting fundamental business processes. With a business model based on customers being able to make an order 24 hours a day it becomes even more critical to monitor and manage any supply-chain and distribution risks while staying competitive. Technological risk is also being opposed due to the fast-changing internet environment, having the potential to cause disruption within the corporation by possible technological failures or security threats. It is crucial to stay up to date regarding all the technological advances and improvements while providing a protected electronic environment for their customers. Technology security risk can be reasonably assumed from the findings as being the main concern of e-commerce users and should definitely be acknowledged and targeted.

5.3. Post-Pandemic

The final section of the questionnaire, which addresses the post-pandemic period, confirms the majority of the findings discussed in the literature review. Firstly, the majority of the participants agree that they will continue shopping online even after the pandemic ends, so e-commerce is expected to continue to increase post-pandemic (Villi, 2021). Furthermore, any avoidant behaviours will most likely cease, but some preventive measures may still exist after the pandemic ends, based on participant responses, as long as the government's measures and regulations are not contradicted. According to a good proportion of the sample, Cypriots are willing to comply with the government's measures, confirming the general conclusion that consumers all over the world have already demonstrated their willingness to conform and follow government's regulations (Singh & Singh, 2020).

So, even after the pandemic ends, risks such as operational, technological and governmental are still being expected due to the potential prolongation of avoidant behaviours, online channels utilization and a positive perception towards conformity. Concluding, all of the risks mentioned above could lead to another threat if left ignored which is reputation risk. If a business successfully recognises and mitigates most of the business risks driven by consumers perceptions, attitudes and online shopping behaviours during the Covid-19 era, its reputation will most probably be left unharmed.

5.4. Final Conclusions

The Covid-19 viral disease, which eventually became a world-wide pandemic, has already been identified as an unfavourable event for the business sector. While many threats are associated with the pandemic, we have already provided an excessive assessment on Cypriot consumers' perceptions, attitudes and online shopping behaviours during the pandemic. The overall results of the research are highlighting various business risks that need to be taken into consideration.

The final conclusions of the questionnaire can be summed up as follows:

- Cypriot consumers' fear about their families' and their own health has been increased.
- They are very prone to preventative and avoidant behaviours such as wearing face mask or being willing to alter their plans if the risk exposure is going to be higher than anticipated.
- The primary measures needed in order to feel safe in the premises of a business are face masks, sanitation practices and social distancing.
- Groceries and food, medical supplies and clothes are their three purchasing priorities.
- The top three most affected activities were found to be social life, travelling and entertainment.
- Most of the sample already makes use of online purchasing quite often and the top three categories of products typically bought online are clothes/accessories, restaurant deliveries and technology equipment.
- Participants' biggest concern while shopping online is their bank account information security.
- Online shopping has shown an increase during the pandemic and is not expected to decrease in post-pandemic since the majority of the participants claim that they will continue shopping online even after the pandemic comes to an end.
- The pandemic will leave an impact on most consumers' lifestyles while some will continue taking preventative measures even after the pandemic ends.

The findings of the variables' associations can be summarised as follows:

- Cypriot consumers are very likely to engage in avoidant and preventative behaviours or aim spending less time in the premises of a business when their fear level rises.
- Despite their age, Cypriots engaged in both preventative and avoidant behaviours
- The frequency of online purchases slightly decreases as the age increases.

- Prior the pandemic, online purchases of younger participants were slightly higher but during the pandemic no such association is proven.
- When shopping online, females are much more concerned about their account information security than males.
- Single people are more likely to make an online purchase from a retailer located in another country.
- Singles' participants main concern while shopping online are shipping fees, while married people were mostly concerned about their bank account information security.

The overall business risks derived from the above as previously explained are as follows:

- Financial Risk
  - Market risk
  - Liquidity risk
- Health Risk
- Operational Risk
  - Process Risk
  - Model Risk
- Government Risk
- Technology Risk – Security Risk
- Reputation Risk

Overall, the conclusions presented above can be exploited by businesses, consumer groups and policymakers as well. It is critical for corporations based in Cyprus to be aware of their customers' tendencies and preferences so that they can adjust their practices, include necessary processes, or eliminate any unnecessary steps in their business functions. By combining their existing knowledge and the findings of this research, they can make better use of their resources. For instance, they will be able to direct their funds towards mitigating the risks mentioned above, expanding their internet capabilities and training their employees on technological advances. In general, the information gathered from the research can provide a solid foundation for understanding Cypriot consumers' behaviour.

Aside from that, it can assist businesses in not only minimizing or avoiding possible threats but also seizing the opportunities that these bring. Small businesses, start-ups and large corporations can also benefit from this situation in regards to potential technological advancements and growth in the web commerce.

Policymakers and governmental institutions must be aware of people's attitudes in order to provide the best possible measures to ensure that Cyprus's economy remains as unaffected as possible. It is also critical to implement measures that make Cypriot residents feel safe in accordance with their opinions and needs. So far, we have concluded that consumers feel safer when they engage in risk-aversion behaviours; therefore, policymakers should consider this before implementing or repealing any safety protocols.

5.5. Limitations of Research

Given that we have already presented our research findings, it is important to recognize the limitations of this study as well. In terms of content, sample size and execution the survey has several shortcomings that we are going to acknowledge.

To begin with, the full spectrum of elements that affect or influence consumers' behaviours and attitudes during the Covid-19 pandemic may be infinite; thus, the most fundamental and significant factors were researched and analysed using existing literature. Similarly, the study's aims and objectives may have been too broad, resulting in a lack of focus that could have been avoided if the study's objectives had been narrowed down. Most specifically, the researcher could have chosen one of the three axes including consumer perceptions, consumer attitudes or online shopping behaviours during the Covid-19 era.

Secondly, since Covid-19 is a relatively new phenomenon, a limitation of prior studies in the business research field was observed. Even though there were enough publications

addressing the matter examined, we were not able to find a plethora of literature, especially findings regarding Greece and Cyprus. As a result, our literature review and eventually our objectives, were determined from the extent of the previous work in the topic field. Aside from that, since Covid-19 is still an on-going event, wo do not have any research or findings regarding the post-pandemic situation. Every day, new findings are generated and there are speculations and expectations about what will happen after the pandemic is over.

Third, despite the researcher's efforts to broaden the distribution of the survey questionnaire, the study's sample size was still limited. Our study's findings could have been more accurate if we had used a larger sample size with more participants from all age groups, particularly older consumers and males, as the majority of participants were females and younger age groups.

Furthermore, methodology was chosen in accordance with the study's objectives, which primarily served to identify attitudes, behaviours, and, ultimately, major risks derived from the aforementioned. As a result, the quantitative methodology strategy adopted did not provide any insight into the reasoning behind these behaviours.

The researcher had to meet targets in order to finish the research on time while maintaining a valid framework and clear guidelines. If time constraints had not existed, the survey could have been more detailed in depth, more questions could have been added to the questionnaire, or more statistical tests could have been implemented to further investigate the participants' behaviours and the various correlations that may exist. Furthermore, the researcher would have more time to review the quality of the data by removing any questions that were found to be unreliable or not critical, such as the last question of our questionnaire as shown in the reliability analysis.

5.6. Recommendations for further Research

After presenting the results, discussing the findings and acknowledging the limitations of the present research we can now consider some recommendations for future research. The researcher acknowledges there are still a number of gaps in our knowledge around consumer attitudes and online behaviours during the pandemic along with post-pandemic behaviours that could lead to the identification of other risks than the ones observed in this study. Any additional research that adds new information to the examined topic would be beneficial.

As previously stated, because the topic has been proved to be quite broad, future research could focus on fewer objectives in order to provide more detailed and in-depth results. The analysis could focus solely on consumer attitudes and emphasize on the observed changes during the pandemic, or it could concentrate purely on their online shopping behaviours while thoroughly analysing potential business risks. Another approach could be focusing on specific risks and provide further solutions and mitigation approaches that could assist corporations located in Cyprus.

Another alternative is to use a different methodological approach. A qualitative approach, for instance, would be able to provide an explanation of participants' responses in terms of questions such as "why" and "how" while providing a more extensive background on the topic. Moreover, any future research might alter the methodology sample and employ different corporations as participants instead of consumers. Both outcomes might then be compared and studied.

Finally, after the pandemic is over, the research can be further progressed or re-evaluated. Since Covid-19 is still an ongoing situation we do not have a clear picture yet in regards to the business risks of the post-pandemic environment. As a result, future research on

Cypriot/Greek consumer attitudes and online shopping behaviours could provide a clear and more accurate picture of the business risks posed by the pandemic.

Appendix A

Survey Questionnaire

QUESTIONNAIRE ON THE BUSINESS RISKS DRIVEN BY CONSUMER PERCEPTIONS, ATTITUDES AND ONLINE SHOPPING BEHAVIOUR DURING THE COVID-19 ERA

This questionnaire was created as part of the Master's programme in Enterprise Risk Management by the Open University of Cyprus. This survey has been developed for academic purposes only and all responses will be kept anonymous and processed with the utmost confidentiality.

The survey should take anywhere from 4 to 6 minutes and it is consisted of 24-33 questions, depending on your responses. There is no correct or incorrect response. Thank you for taking the time to complete this survey!

SECTION 1: DEMOGRAPHICS

1. Gender?

    ◯ Male

    ◯ Female

    ◯ Prefer not to say

2. Age?

    ◯ 18-24

    ◯ 25-34

    ◯ 35-44

    ◯ 45-54

    ◯ 55-64

    ◯ 65+

    ◯ Prefer not to say

3. Country of residence?

- ⬭ Cyprus
- ⬭ Greece
- ⬭ Other

4. Educational Level? (select the highest)

- ⬭ Less than high school diploma
- ⬭ High School Degree or equivalent
- ⬭ Associate / College Degree or Technical Training Degree
- ⬭ Bachelor's Degree
- ⬭ Master's Degree
- ⬭ Doctorate Degree (PhD)
- ⬭ Other

5. What is your current employment status?

- ⬭ Unemployed
- ⬭ Student
- ⬭ Employed full-time
- ⬭ Employed part-time
- ⬭ Retired
- ⬭ Self-employed
- ⬭ Other

6. What is your marital status?

- ⬭ Single
- ⬭ Married
- ⬭ Widowed
- ⬭ Divorced
- ⬭ Prefer not to say

SECTION 2

To what extent do you agree or disagree with each of the following regarding the IMPACT OF THE CORONAVIRUS PANDEMIC?

7.   During the pandemic you shop closer to home and support local businesses

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

8.   You spend less money than you did prior the pandemic

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

9.   During the pandemic you schedule your purchases according to your current needs rather than buying impulsively

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

10.   You are delaying major purchases due to the pandemic

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

11.   The pandemic has increased your fear about your family's and your own safety and health

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

12.   During the pandemic you avoid congested areas (e.g. malls).

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

13. You feel the need to be protected by taking preventative measures such as washing your hands frequently or wearing your mask

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

14. You are willing to alter or cancel your plans if you perceive a higher health exposure risk than you initially expected

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

15. When you shop in person you try to spend much less time in the premises of the business compared to before the pandemic

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

16. What measures does a business need to take before you feel comfortable visiting in person? (choose as many apply to you)

- ☐ Social distancing
- ☐ Mandatory face masks
- ☐ Mandatory health checks (e.g. temperature check)
- ☐ Mandatory safepass check (vaccination/rapid test)
- ☐ Hygiene and sanitation practices
- ☐ Other
- ☐ None

17. Your primary considerations prior making a purchase are:

	Price	Convenience	Hygiene	Quality	Brand	Other	None
First	◯	◯	◯	◯	◯	◯	◯
Second	◯	◯	◯	◯	◯	◯	◯
Third	◯	◯	◯	◯	◯	◯	◯

18.   Your purchasing priorities during the pandemic are:

	Groceries & Food	Medical supplies	Clothes/ Accessories	Technology equipment	Vacation/ Travelling	Entertainment	Other
First	◯	◯	◯	◯	◯	◯	◯
Second	◯	◯	◯	◯	◯	◯	◯
Third	◯	◯	◯	◯	◯	◯	◯

19.   Which type of activities were most affected by the pandemic? Please rank them, with no. 1 being the most affected and no. 7 the least affected.

	Shopping	Entertainment	Health care	Work	Travelling	Transportation/ Mobility	Social Life
1.	◯	◯	◯	◯	◯	◯	◯
2.	◯	◯	◯	◯	◯	◯	◯
3.	◯	◯	◯	◯	◯	◯	◯
4.	◯	◯	◯	◯	◯	◯	◯
5.	◯	◯	◯	◯	◯	◯	◯
6.	◯	◯	◯	◯	◯	◯	◯
7.	◯	◯	◯	◯	◯	◯	◯

20.   In the past 12 months have you purchased any goods or services via the internet?

◯ Yes, from a retailer located in Cyprus

◯ Yes, from a retailer located in other country

◯ Yes, from a retailer located in Cyprus & another country

◯ No (Skip to question 30)

SECTION 3 - ONLINE SHOPPING

21.   How often do you buy products online?

- ◯ Extremely often
- ◯ Quite often
- ◯ Moderately often
- ◯ Slightly often
- ◯ Not often at all

22.   What type of products do you typically buy online? (choose as many apply to you)

- ☐ Groceries
- ☐ Restaurant deliveries
- ☐ Clothes/Accessories
- ☐ Medical supplies
- ☐ Technology equipment
- ☐ Entertainment goods
- ☐ Other

23.   What portion of your total purchases are your online shopping purchases during the pandemic?

	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Approximately	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

24.   What was the portion of your total online purchases before the pandemic?

	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Approximately	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

25. What is your biggest concern when shopping online?

- ( ) Personal info security
- ( ) Bank account info security
- ( ) Misleading information
- ( ) Long delivery
- ( ) Shipping fees
- ( ) Possibility of damaged goods
- ( ) Other
- ( ) I don't have any concerns about shopping online

To what extent do you agree or disagree with the following:

26. You feel confident purchasing goods or services via the internet from providers in Cyprus

	1	2	3	4	5	
Strongly disagree	( )	( )	( )	( )	( )	Strongly agree

27. There are enough online options for shopping in Cyprus

	1	2	3	4	5	
Strongly disagree	( )	( )	( )	( )	( )	Strongly agree

28. You prefer online shopping rather than visiting physical stores

	1	2	3	4	5	
Strongly disagree	( )	( )	( )	( )	( )	Strongly agree

29. You will continue shopping online even after the pandemic ends

	1	2	3	4	5	
Strongly disagree	( )	( )	( )	( )	( )	Strongly agree

SECTION 4: POST-PANDEMIC

To what extend do you agree or disagree with the following:

30.   The pandemic will leave a remarkable impact on your lifestyle

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

31.   You will continue to avoid crowded areas after the pandemic ends (e.g. malls)

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

32.   You will continue to take preventative measures (such as washing your hands frequently or wearing your mask) after the pandemic ends

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

33.   You are willing to comply to any measure taken by the government in order to overcome the pandemic

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

References

Ajzen, I. (2008). Consumer Attitudes and Behavior. Handbook of Consumer Psychology. doi:10.4324/9780203809570.ch20

Akoglu, H. (2018). User's guide to correlation coefficients. Turkish journal of emergency medicine, 18(3), 91-93.

Baker, S. R., Farrokhnia, R. A., Meyer, S., Pagel, M., & Yannelis, C. (2020). How does household spending respond to an epidemic? Consumption during the 2020 COVID-19 pandemic (No. w26949). National Bureau of Economic Research, Cambridge, MA.

Bartik, A. W., Bertrand, M., Cullen, Z., Glaeser, E. L., Luca, M., & Stanton, C. (2020). The impact of COVID-19 on small business outcomes and expectations. Retrieved from https://www.pnas.org/content/117/30/17656

Borghesi, A., & Gaudenzi, B. (2013). Risk management how to assess, transfer and communicate critical risks. Springer Milan.

Botsch, B. (2011). Chapter 12. significance and measures of association. Retrieved May 3, 2022, from https://polisci.usca.edu/apls301/Text/Chapter%2012.%20Significance%20and%20Measures%20of%20Association.htm

Cepel, M., Gavurova, B., Dvorsky, J., & Belas, J. (2020). The impact of the COVID-19 crisis on the perception of business risk in the SME segment. *Journal of International Studies, 13*(3), 248-263. doi:10.14254/2071-8330.2020/13-3/16

Chang, H. H., & Meyerhoefer, C. D. (2021). COVID-19 and the demand for online food shopping services: Empirical Evidence from Taiwan. *American Journal of Agricultural Economics*, *103*(2), 448-465.

Cliff, A., & Smallman-Raynor, M. (2013). Containing the Spread of Epidemics. Retrieved from https://oxfordmedicine.com/view/10.1093/med/9780199596614.001.0001/med-9780199596614-chapter-1

de Bruin, W. B., Saw, H. W., & Goldman, D. P. (2020). Political polarization in US residents' COVID-19 risk perceptions, policy preferences, and protective behaviors. *Journal of risk and uncertainty*, *61*(2), 177-194.

de Vaus, D. (2016). Survey research. Research Methods for Postgraduates: Third Edition, 202–213. https://doi.org/10.1002/9781118763025.ch21

Delivorias A., Scholz N. (February, 2020), Economic impact of epidemics and pandemics, European Parliamentary Research Service

Didier, T., Huneeus, F., Larrain, M., & Schmukler, S. L. (2020). Financing firms in hibernation during the COVID-19
Pandemic. World Bank. https://doi.org/10.1596/33611

Dowling, G. R., & Staelin, R. (1994). A model of perceived risk and intended risk-handling activity. *Journal of consumer research*, *21*(1), 119-134.

EY Future Consumer Index Ελλάδα 2021 Καθώς ο καταναλωτής ... (2021). Retrieved from https://assets.ey.com/content/dam/ey-sites/ey-com/el_gr/topics/future-consumer-now/brochure-ey-greece-future-consumer-index.pdf

Fihartini, Y., Helmi, A., Hassan, M., & Oesman, Y. M. (2021). Perceived health risk, online retail ethics, and consumer behavior within online shopping during the COVID-19 pandemic. *Innovative Marketing, 17*(3), 17-29. doi:10.21511/im.17(3).2021.02

Folinas, S., & Metaxas, T. (2020). Tourism: The great patient of coronavirus COVID-2019.

Gao, X., Shi, X., Guo, H., & Liu, Y. (2020). To buy or not buy food online: The impact of the COVID-19 epidemic on the adoption of e-commerce in China. PLoS ONE, 15(8), e0237900. https://doi.org/10.1371/journal. pone.0237900

Galloway, A. (2005). Non-probability sampling. Encyclopedia of Social Measurement, 859–864. https://doi.org/10.1016/b0-12-369398-5/00382-0

Golec P., Kapetanios G., Neuteboom N., Ritsema F., Ventouri A. (2020). Disentangling the effect of government restrictions and consumers' reaction function to the Covid-19 pandemic: evidence from geo-located transactions data for The Netherlands

Grant Thornton Greece (2020). A study on the effects of Covid-19 on Greek businesses & the economy. Retrieved from https://www.grant-thornton.gr/en/insights/article/survey-coronavirus-greek-economy-en/

Gu, S.; Slusarczyk, B.; Hajizada, S.; Kovalyova, I.; Sakhbieva (2021). A. Impact of the COVID-19 Pandemic on Online Consumer Purchasing Behavior. J. Theor. Appl. Electron. Commer. Res. 16, 2263–2281. https://doi.org/10.3390/jtaer16060125

Habib, S.; Hamadneh, N.N. (2021) Impact of Perceived Risk on Consumers Technology Acceptance in Online Grocery Adoption amid COVID-19 Pandemic. Sustainability 2021, 13, 10221. https://doi.org/ 10.3390/su131810221

Hammer, C. S. (2011). The importance of participant demographics. *American Journal of Speech-Language Pathology*, *20*(4), 261.

Haren, P., & Simchi-Levi, D. (2020, March 23). How Coronavirus Could Impact the Global Supply Chain by Mid-March. Retrieved from https://hbr.org/2020/02/how-coronavirus-could-impact-the-global-supply-chain-by-mid-march

Harkiolakis, N., & Halkias, D. (2006). Behavior and perceptions of Greek consumers in business related e-communities. *WSEAS Transactions on Business and Economics*, *3*(8), 569.

Hartwell, C. A., & Devinney, T. (2021). Populism, political risk, and pandemics: The challenges of political leadership for business in a post-COVID world. Journal of World Business, 56(4), 101225. doi:10.1016/j.jwb.2021.101225

Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-based nursing*, *18*(3), 66-67.

Hilton, C. E. (2017). The importance of pretesting questionnaires: a field research example of cognitive pretesting the Exercise referral Quality of Life Scale (ER-QLS). International Journal of Social Research Methodology, 20(1), 21-34.

Hughes, J. L., Camden, A. A., & Yangchen, T. (2016). Rethinking and updating demographic questions: Guidance to improve descriptions of research samples. Psi Chi Journal of Psychological Research, 21(3), 138-151.

Jensen, K. L., Yenerall, J., Chen, X., & Yu, T. E. (2021). US Consumers' Online Shopping Behaviors and Intentions During and After the COVID-19 Pandemic. *Journal of Agricultural and Applied Economics*, *53*(3), 416-434.

Karros, D. J. (1997). Statistical methodology: II. Reliability and validity assessment in study design, Part B. Academic Emergency Medicine, 4(2), 144-147.

Koç, E., Taşkın, Ç., & Boz, H. (2019). Risk and Control in Consumer Behavior: A Discussion. In S. Grima, E. Ozen, H. Boz, J. Spiteri, & E. Thalassinos (Eds.), Contemporary Issues in Behavioral Finance (Vol. 101, pp. 1–12). Bingley: Emerald Publishing Limited.

Kusumaningrum, D. A., & Wachyuni, S. S. (2020). The shifting trends in travelling after the COVID 19 pandemic. *International Journal of Tourism & Hospitality Review*.

Long, V. J., & Liu, J. C. (2021). Behavioural changes during the COVID-19 pandemic: Results of a nationwide survey in Singapore. *Annals of the Academy of Medicine, Singapore*, *50*(3), 222-231.

Lu, Y., Wu, J., Peng, J., & Lu, L. (2020). The perceived impact of the Covid-19 epidemic: evidence from a sample of 4807 SMEs in Sichuan Province, China, Environmental Hazards. https://doi.org/10.1080/17477891.2020.1763902

Mavros, T. (2021). As Greek consumers keep adapting, how ready is your business to respond? Retrieved from https://www.ey.com/en_gr/future-consumer-index/as-greek-consumers-keep-adapting-how-ready-is-your-business-to-respond

Morphy. (2018, December 11). Risk Definition - What is risk? Retrieved from https://www.stakeholdermap.com/risk/risk-definition.html.

Mouratidis, K., & Papagiannakis, A. (2021). COVID-19, internet, and mobility: The rise of telework, telehealth, e-learning, and e-shopping. *Sustainable Cities and Society*, *74*, 103182.

Newson, R. (2002). Parameters behind "nonparametric" statistics: Kendall's tau, Somers' D and median differences. *The Stata Journal*, *2*(1), 45-64.

OECD Economic Outlook, Interim Report March 2020. (2020). *OECD Economic Outlook*. doi:10.1787/7969896b-en

Olsen, C., & St George, D. M. M. (2004). Cross-sectional study design and data analysis. College entrance examination board, 26(03), 2006.

Pantano, E., Priporas, C., Devereux, L., & Pizzi, G. (2021). Tweets to escape: Intercultural differences in consumer expectations and risk behavior during the COVID-19 lockdown in three European countries. Journal of Business Research, 130, 59-69. doi:10.1016/j.jbusres.2021.03.015

Pantea Foroudi, S. Asieh H. Tabaghdehi, Reza Marvi (2021). The gloom of the COVID-19 shock in the hospitality industry: A study of consumer risk perception and adaptive belief in the dark cloud of a

pandemic, International Journal of Hospitality Management, Volume 92, 102717, ISSN 0278-4319, https://doi.org/10.1016/j.ijhm.2020.102717.

Principles of Epidemiology. (2012, May 18). Retrieved from https://www.cdc.gov/csels/dsepd/ss1978/lesson1/section11.html

Rodrigues, M.; Franco, M.; Sousa, N.; Silva, R. (2021). Reviewing COVID-19 Literature on Business Management: What It Portends for Future Research? https://doi.org/10.3390/su13115995

Salem, M. A., & Md Nor, K. (2020). The Effect of COVID-19 on Consumer Behaviour in Saudi Arabia: Switching From Brick And Mortar Stores To E-Commerce. International Journal of Scientific & Technology Research, 9(7). Retrieved from https://www.researchgate.net/publication/343448244_The_Effect_Of_COVID-19_On_Consumer_Behaviour_In_Saudi_Arabia_Switching_From_Brick_And_Mortar_Stores_To_E-Commerce

Saunders, M. N. K., Lewis, P. & Thornhill, A. (2009). Research Methods for Business Students (5th Edition). London: Pearson Education.

Sheth, J. (2020). Business of business is more than business: Managing during the Covid crisis. *Industrial Marketing Management, 88*, 261-264. doi:10.1016/j.indmarman.2020.05.028

Singh, J., & Singh, J. (2020). COVID-19 and its impact on society. Electronic Research Journal of Social Sciences and Humanities, 2.

Solomon, M., Russell-Bennett, R., & Previte, J. (2012). *Consumer behaviour*. Pearson Higher Education AU.

Tam, T., Rao, A., & Hall, J. (2021). The Invisible COVID-19 Small Business Risks. *Digital Government: Research and Practice, 2*(2), 1-8. doi:10.1145/3436807

Vatavali, F., Gareiou, Z., Kehagia, F., & Zervas, E. (2020). Impact of COVID-19 on Urban Everyday Life in Greece. Perceptions, Experiences and Practices of the Active Population. *Sustainability*, *12*(22), 9410.

Villi, B. (2021). The Influence of Covid-19 on Consumers' Perceptions of Uncertainty and Risk. *Contemporary Issues in Social Science Contemporary Studies in Economic and Financial Analysis,* 135-148. doi:10.1108/s1569-375920210000106009

Wang, S., Cheah, J., Lim, X., Leong, Y. C., & Choo, W. C. (2022). Thanks COVID-19, Ill reconsider my purchase: Can fear appeal reduce online shopping cart abandonment? *Journal of Retailing and Consumer Services, 64*, 102843. doi:10.1016/j.jretconser.2021.102843

Xu, Y., Goedegebuure, R., & Van der Heijden, B. (2007). Customer perception, customer satisfaction, and customer loyalty within Chinese securities business: towards a mediation model for predicting customer behavior. *Journal of relationship marketing*, *5*(4), 79-104.

Yi Jin Lim, Abdullah Osman, Shahrul Nizam Salahuddin, Abdul Rahim Romle, Safizal Abdullah (2016). Factors Influencing Online Shopping Behavior: The Mediating Role of Purchase Intention, Procedia Economics and Finance, Volume 35, Pages 401-410, ISSN 2212-5671, https://doi.org/10.1016/S2212-5671(16)00050-2.