# NEAR EAST UNIVERSITY INSTITUTE OF GRADUATE STUDIES DEPARTMENT OF COMPUTER INFORMATION SYSTEMS

## CUSTOMERS' VIEW OF E-COMMERCE DURING THE COVID-19 PANDEMIC

**M.Sc. THESIS** 

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M.Sc. THESIS

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#### Approval

We certify that we have read the thesis submitted by Shylet Tinotenda Ganyaupfu titled **"Customers' View of E-commerce During the Covid-19 Pandemic**" and that in our combined opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science in Computer Information Systems.

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#### Declaration

I hereby declare that all information, documents, analysis and results in this thesis have been collected and presented according to the academic rules and ethical guidelines of Institute of Graduate Studies, Near East University. I also declare that as required by these rules and conduct, I have fully cited and referenced information and data that are not original to this study.

Shylet Tinotenda Ganyaupfu 22/02/2022

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#### Shylet Tinotenda Ganyaupfu

#### Abstract

#### **Customers' View of E-commerce During the Covid-19 Pandemic**

Ganyaupfu, Shylet Tinotenda Assoc. Prof. Dr. Karagözlü, Damla MSc, Department of Computer Information Systems February, 2022, 72 pages

The e-commerce industry has become widely popular and is trending in the digitalization era as technology. The Covid-19 pandemic has shaken the world and has forced many people worldwide to alter their lifestyles in attempts to avoid contamination and abide by the protocols put in place by World Health Organizations and governments. Due to lockdowns, temporary business closures and social distancing, customers have had to turn to e-commerce for their products and services buying needs. This study investigates customers' views of e-commerce during the Covid-19 pandemic. This survey method was used in this study and online distribution was used. Data was collected from 419 participants and analysed using descriptive statistics and independent sample t-test in SPSS. Results showed that participants viewed e-commerce to be useful, satisfactory, and trustworthy during Covid-19. Results also showed that participants intend on continuing to use e-commerce. According to the results, there is a statistically significant difference on perceived risk between genders. There is no statistically significant difference on trust, satisfaction, usefulness, and intention between genders. On the age variable, results show there is a statistically significant difference on perceived risk, satisfaction, usefulness and intention to continue using between <41 participants and >=41 participants age groups. Results also showed that there is no statistically significant difference on trust between age groups.

*Key Words*: e-commerce, covid-19, consumer behaviour, usefulness, intention to continue using e-commerce

#### Özet

# E-Ticaret Müşterilerinin Covid-19 Pandemisi Sırasında E-ticarete Yönelik Görüşleri

Ganyaupfu, Shylet Tinotenda Assoc. Prof. Dr. Karagözlü, Damla MSc, Department of Computer Information Systems February, 2022, 72 pages

İçinde bulunduğumuz dijitalleşme çağında e-ticaret endüstrisi oldukça popüler hale gelmiştir. Covid-19 salgını Dünya'yı etkilemiş ve birçok insanın yaşam tarzlarının değişmesine neden olmuştur. Karantinalar, işyerlerinin geçici olarak kapanması ve sosyal mesafe gerekliliği nedeniyle müşteriler ürün ve hizmet satın alımı için e-ticarete yönelmek zorunda kalmıştır. Bu çalışma, e-ticaret müşterilerinin Covid-19 salgını sırasında e-ticarete yönelik görüşlerini araştırmaktadır. Tarama yönteminin kullanıldığı araştıma 419 katılımcıyı kapsamaktadır. Sonuçlar, katılımcıların e-ticareti Covid-19 süresince yararlı, tatmin edici ve güvenilir olarak gördüklerini göstermiştir. Sonuçlar ayrıca katılımcıların e-ticareti kullanmaya devam etme eğiliminde olduklarını göstermiştir. Elde edilen sonuçlara göre cinsiyetler arasında algılanan risk açısından istatistiksel olarak anlamlı farklılık bulunurken cinsiyetler arasında güven, memnuniyet, kullanışlılık ve niyet açısından anlamlı bir fark bulunmamıştır. Sonuçlar ayrıca yaş grupları arasında güven konusunda istatistiksel olarak anlamlı bir fark olmadığını göstermiştir.

Anahtar Kelimeler: e-ticaret, covid-19, tüketici davranışı, kullanışlılık, e-ticareti kullanmaya devam etme niyeti

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# CHAPTER I Introduction

This chapter includes background of the study, the problem, the aim of the study, the significance and the limitations of the study.

#### **Background of the Study**

Technology has been seen to advance more and more during the past decades resulting in users having access to different computer networks like the internet. In the 1960s, ARPANET was introduced and was funded by the United States Department of Defense to share information among multiple computers using packet switching. The World Wide Web (WWW) was later inverted in 1989, giving the public easier access to the internet. Because of the advancement in technology, users are now able to access the internet through different communication devices which include mobile phones, laptops, tablets etc. The availability of the internet and communication devices has opened up new ways for companies to do business and provide consumers with easier ways of purchasing products and services. The retail industry is one of the many industries that have benefited from the growth of internet. Retailers are able to reach a wider range of customers to sell their products and services to over the internet through commercial websites and applications (Fan et al., 2020). This form of retail is known as electronic commerce (referred to as e-commerce from this point). E-commerce is the purchasing or selling of products and services electronically, through computer networks like the internet (Tolstoy et al., 2020).

E-commerce has changed the way in which market operators do business. Extant literature and analysts have reported predictions of e-commerce's growth in the last decade, prior Covid-19 pandemic. Report by Eurostat (2019), showed that EU enterprises which had conducted online sales from 2008 to 2018 increased by 7% from 13% to 20% and the enterprises' turnover from online sales increased from 12% in 2008 to 18% in 2018. However e-commerce seems to be more popular with large enterprises than SME, one of the reasons being that implementing e-commerce requires using more advanced digital technologies and restructuring the business' models which SME can find to be more expensive and time consuming (Tolstoy et al., 2020). Eurostat (2019) report showed that large enterprises with online sales were 43%, medium enterprises with online sales were 28% and small enterprises were 18%.

E-commerce has given consumers a more flexible and efficient way to shop and pay for products and services from any location, locally or internationally. This is shown by the increase of online sales each passing year. Statista found that the global retail e-commerce sales went up from \$1.33 trillion US dollars in 2014 to \$3.53 trillion US dollars in 2019, and were estimated to increase to \$6.54 trillion US dollars in the year 2022 (Statista, 2019). Ethan (2022) report showed that after the unusual growth of e-commerce in 2020 and 2021 due to Covid-19 pandemic, e-commerce retail sales are expected to stabilize in 2022 and continue to grow steadily. Report showed that the global retail e-commerce sales in 2020 reached \$4.248 trillion (17.9%), in 2021 sales were \$4.938 trillion (19.0%) and are expected to reach \$5.542 trillion (20.3%) in 2022 and exceed \$7 trillion by 2025.

The current coronavirus (Covid-19) that was declared a pandemic in March 2020 by the World Health Organization has impacted the livelihoods of many individuals worldwide. The economy of many countries has been affected by the pandemic, with The United States' GDP being an example of this as its major three stock markets crashed on the 23rd of March 2020, the beginning of the outbreak, resulting in the loss of trillion of dollars (Tran, 2021). China's retail sales also decreased by 20.5% in the first two month of the year 2020 when Covid-19 started. Customers have also had to change their lifestyles in order to comply with the restrictions and protocols implemented by the governments in hopes of controlling the spread of the virus. Due to these restrictions, consumers have had to find alternative ways of purchasing the different supplies they need and using e-commerce has become one of the predominant ways of doing so (Cruz-Cárdenas et al., 2021).

Therefore this study will firstly look at the Covid-19 pandemic, the events that occurred and the measures that were taken when it was declared a pandemic by WHO. The study will focus on how this ongoing pandemic has influenced e-commerce growth and the way in which customers view e-commerce in terms of its usefulness during Covid-19, if they think it has been trustworthy, reliable and meet their expectations and their level of satisfaction. In the attempt to predict the future of e-commerce, this study will also focus on the consumers' intention to continue e-commerce even after Covid-19 pandemic. Customers' security and privacy is very important when using e-commerce as transactions are carried out on the open internet and customers are required to provide sensitive information (Xu et al., 2020). Because of the importance of the subject, this study will also look into the security and privacy

of e-commerce, and assess if customers feel secure when they use e-commerce and the effect that has on their use of e-commerce.

#### **The Problem Statement**

Though it become wildly popular this last two decades, e-commerce has been around for decades, its earliest record being in 1969 when CompuServe was launched. The launching of World Wide Web in 1990 increased its popularity as it gave many customers easier access to products online and also allowed retailers to reach more customers than before (Tian & Stewart, 2006). With the advancement of technology, consumers are now able to shop online from different devices like laptops, mobile phones and tablets in an instant.

Governments took measures to minimise the spread of the virus during the first wave of Covid-19 in 2020 and temporarily closing businesses that are considered nonessential during the pandemic was one these measures. In Belgium this included closure of all non-food stores with the exception of pharmacies (Beckers, 2021). These protocols have affected many industries, from the hospitality industry to the retail industry. Businesses have been forced to alter their strategies so as to cope with the strain of the pandemic (Tran, 2021). Lockdown in France and temporary closure of businesses during March 16 to May 11 2020 resulted in partial unemployment and low activity in the business to business segment with the exception of supermarkets and pharmacies while business to consumer e-commerce segment saw a rapid increase in e-commerce activity (Buldeo Rai et al., 2022; Guthrie et al., 2021). Protocols are still being implemented up to now in areas with high rates of Covid-19.

The current Covid-19 pandemic has not only affected the economy and businesses but has also greatly affected consumers and their buying behaviour. An erratic change in consumer behaviour was reported in the first few months after the Covid-19 outbreak as customers reacted to the pandemic by panic-buying and hoarding products they thought would be essential during the pandemic (Guthrie et al., 2021). Prentice et al. (2021) study argues that the panic buying experienced at the beginning of the pandemic was due to the governments' announcement of protocols to control and stop the spread of the virus. As a result, retailers were faced with a shortage of inventory and this also impacted their suppliers. Retailers also were faced with a surplus for the other products not being purchased during the chaos (Laato et al., 2020). As non-essential movements and places they can go to have been restricted due to the stay at home protocols, also referred to as lockdown, and social distancing, consumers have found themselves in a position where they have to find alternative ways of making transactions and purchases (Guthrie, Fosso-Wamba, & Arnaud, 2021). This has left many consumers worldwide to rely on online channels to make different transactions.

As the events of the pandemic are still current and ongoing, research will contribute to literature by investigating how consumers have viewed e-commerce during these unprecedented times.

#### The Aim of the Study

This study aims to investigate consumers' view of e-commerce during the current Covid-19 pandemic. How their use of e-commerce has changed from prior Covid-19 compared to during Covid-19. The research questions below are to be addressed in the study in order to meet the proposed aim.

- 1. How is the participants' behaviour regarding e-commerce before Covid-19 and during Covid-19?
  - 1.1. What is the participants' daily internet usage?
  - 1.2. How many times have participants made online purchases before Covid-19 and since Covid-19?
  - 1.3. Which products and services did participants purchase online before Covid-19?
  - 1.4. Which products and services have participants purchased online since Covid-19?
  - 1.5. Which device do participants prefer to use when making purchases online?
  - 1.6. Which method of purchasing have participants used for making purchases before Covid-19 and since Covid-19?
  - 1.7. Which platforms do participants use to make purchases online?
- 2. What is the participants' view of e-commerce during Covid-19?
- 3. Is there any different between participants' view of e-commerce based on gender?

4. Is there any different between participants' view of e-commerce based on age?

#### The Significance of the Study

In this digitalization era, the number of internet users worldwide have reached billions. The internet has become widely popular with many people having easier access to the internet. Internet has helped the growth of e-commerce profoundly. With e-commerce, people are able to purchase and sell goods and services over the internet. E-commerce has allowed businesses to reach a wider audience by providing their services online and has allowed customers easier access to a wide variety of products and services, local and international. Customers have 24/7 access to e-commerce platforms and are able to make purchases from any location provided they have internet connection, not only saving them time but also money as they benefit from various offers and discounts.

From the beginning of 2020 till date, the world has been living in uncertain and challenging times due to the Covid-19 virus which was declared a pandemic by WHO in March 2020. Protocols like lockdown, social distancing and travel restrictions have been implemented time and time again around the world. People have had to make changes to their lifestyles and literature has identified changes in consumer behaviour due to the pandemic. Because of temporary closure of businesses and avoidance of contracting the virus, consumers have had to rely on alternative ways to make purchases and perform different transactions. E-commerce is one the methods consumers have had to turn to for their day to day transactions and purchases.

Because of these events, it is important to understand the effects that Covid-19 has had on consumers and the e-commerce industry. It is believed the results of this study will contribute to literature by showing how consumers have viewed e-commerce during the Covid-19 pandemic. It is also believed by the researchers that the results of this study will help to see if consumers' use of e-commerce has changed from before Covid-19 to since the Covid-19 pandemic.

This study can be of value to other researchers who want to investigate the effects of Covid-19 on e-commerce industry and the effects of natural disasters on consumer behaviour. It can also be of value to e-retailers who want assess areas they can improve on to attract more customers.

#### Limitations

This study is limited to the following;

- Online distribution only, due to Covid-19 pandemic resulting in a limited number of responses as not everyone has access to the internet.
- Study covers e-commerce only and does not include social commerce which is a subset of e-commerce.
- The number of people able to contribute to the study are limited as not all countries have the technology to implement electronic commerce nationwide.

#### **Overview of the Thesis**

The research is divided into five chapters covering all the data and results related to the study.

Chapter 1 presents an introduction of customers' view of e-commerce during Covid-19 pandemic, the problem of the study, the aim of the study, the limitation and the scope of the study

Chapter 2 presents background material concerning the study and related work

Chapter 3 presents the methodology, data collection procedure, data analysis procedure and statistical analysis of the research

Chapter 4 presents consumer behaviour and results and discussion, giving a description and interpretation of the study

Chapter 5 presents the conclusions and recommendations of the study.

#### CHAPTER II

#### **Theoretical Framework and Related Research**

This chapter covers theoretical framework and related research on customers' view of e-commerce during Covid-19.

#### **Theoretical Framework**

#### *E-commerce*

The internet has evolved during this digitalization era creating new efficient ways for business to provide their products and services to consumers. E-commerce is an example of how the internet has transformed not only how retailers do business but also consumer behaviour, with consumers now not only relying on physical retail stores but also on e-commerce for their day to day transactions.

Zheng et al. (2009), referred to e-commerce as "various online commercial activities focusing on commodity exchanges by electronic means, internet in particular, by companies, factories, enterprises, industrial undertakings and consumers". (p. 7). E-commerce is defined by Nisar and Prabhakar (2017); Eurostat (2019); Tolstoy et al. (2020), as the exchange of goods and services through computer networks like the internet or online social networks (for example Facebook and Instagram).

E-commerce is usually associated with electronic shopping and electronic retailing but it does however extend to other categories like online banking, electronic payment system, online auctions, and electronic data interchange etc. (Rico et al., 2008).

Though it is widely popular and trending now, e-commerce has been around for decades. The invention of World Wide Web boosted the growth of e-commerce as users now had easier access to the internet and e-retailers. To better understand ecommerce and its' growth, it is necessary to look at the history of it, from where it began to where it is now. Below is a history timeline of e-commerce and events that have contributed to its growth.

> • 1960s: Electronic Data Interchange (EDI) originated, which allowed the sharing of documents from one computer to another. Not only did it greatly reduce the use of paper but also minimised the mistakes made on documents and also reduced the cost of making and handling

documents. It however, was only suitable for only large scaled transnational corporations (Zheng, et al., 2009).

- 1969: CompuServe, the first e-commerce company is launched. Founded by Dr. John R. Goltz and Jeffrey Wilkins in Columbus, Ohio. Its technology used EDI, sent data through phone line (BigCommerce, 2021).
- 1979: Electronic shopping is inverted by Michael Aldrich by connecting customer television to a computer via telephone line (Carmen, 2021)
- 1982: Boston Computer Exchange (BCE), the world's first e-commerce company is launched. It served as an online marketplace for people who wanted to sell their second hand computers (BigCommerce, 2021)
- 1984: CompuServe launches Electronic Mall, an online marketplace were customers could purchase from various merchants
- 1989: World Wide Web (WWW), first web browser was inverted by Tim Berners-Lee. Which would go on to increase the growth of ecommerce as it gave users easier access to products provided by online retailers.
- 1992: Book Stacks Unlimited, the first online bookstore created by Charles M. Stack is launched (Carmen, 2021).
- 1994: Netscape Navigator web browser is launched and became the most popular web browser in the 1990s (BigCommerce, 2021).
- 1995: Amazon is launched by founder Jeff Bezos as an online bookseller. Within a month, the company had shipped books to 45 countries. AuctionWeb is launched in the same year by Pierre Omidyar (now known as eBay).
- 1998: PayPal is launched as an electronic money transfer tool for ecommerce
- 1999: Alibaba, founded by Jack Ma is launched. It went on to be one of the most popular online marketplaces to date (BigCommerce, 2021).
- 2000: AdWords, an advertising service for e-commerce businesses to advertise their business to users using Google search was introduced by Google (Carmen, 2021; BigCommerce, 2021)

- 2005: Amazon launches Amazon Prime membership which through an annual subscription, allowed customers to get faster and free shipping and access to Amazon's streaming service (BigCommerce, 2021). Cyber Monday was also introduced in 2005 in order to boost online holiday sales (Carmen, 2021).
- 2011: Google introduces Google Wallet, a peer-to-peer online payment service which allowed users to send and receive money through mobile phone or computer by linking their debit card or bank account. It is now known as Google Pay (BigCommerce, 2021).
- 2014: Apple launched its own mobile payment service, Apple Pay which allowed Apple users to pay for products and services on their mobile phones (BigCommerce, 2021)
- 2016: Facebook launches Marketplace which permits users to purchase and sell products from the Facebook application
- 2020: Covid-19 pandemic amplifies the growth of e-commerce as more consumers turn to e-commerce to make purchases that they would usually make in physical stores (BigCommerce, 2021).

#### **Benefits of E-commerce**

Before the pandemic, the growth in e-commerce was evident. However the covid-19 pandemic has accelerated the growth of e-commerce. E-commerce has always allowed customers to purchase products and services from the comfort of their homes, which is beneficial during the pandemic as they are advised to limit physical contact. By using e-commerce, customers also have economic benefits as e-commerce platforms offer discounts on their prices and promotions on their websites (Tran, 2021).

Customers also benefit from price transparency and competitive pricing when they use e-commerce as retailers compete with each other and try to match their competitors' prices or lower them in order to avoid losing customers to them or gain more customers, thus giving customers fair prices. Because e-commerce allows retailers to directly interact and sell to consumers, the costs acquired by retailers is reduced allowing them to gain more profits whilst providing lower prices for their consumers. Online retailers do not require a physical stores as traditional stores, therefore the cutting the costs and allowing them to easily make changes according to the market conditions (Nisar & Prabhakar, 2017).

Consumers also have wider variation of choices when using e-commerce and more information on products which can help them make a decision on whether to purchase or not to purchase. However the wide variety of choices and information that is provided to the customer when using e-commerce can end up resulting in information overload. This will end up being time consuming for the consumer as they have to browse through all these products in order to find the best choice for them (Huang et al., 2010).

Cross-border e-commerce has allowed to remove the limitations created by geographical boundaries as customers are able to purchase products and services from other countries across the world. The transaction cost acquired by customers are less and so are the prices because of market competitive pricing (Han & Kim, 2019). It has also allowed merchandise to circulate as merchants are able to sell their products to customers outside their geographical zone (for example buying and selling on Amazon and eBay).

#### E-commerce Challenges

However, Despite e-commerce becoming famous, there are still some perceived risk that are believed to contribute to some users not being so keen on using e-commerce to make purchases. There many types of risks associated with shopping online, the main two being product risk, security (Lopez-Nicolas & Molina-Castillo, 2008) and privacy.

As customers are not able to physically assess the product before purchasing, this makes product risk a common concern for customers. This makes the product description and pictures provided on the platform very important as it helps to give the customer a clearer picture of what they are purchasing. It is important for the description to be as informative as possible, with features of the product clearly stated. Online reviews from other customers who have purchased the product on the platform can also help reduce the product risk as they give the customer more information about the product, contributing to whether the customer will purchase the product or not (Kaushik et al., 2018; Lopez-Nicolas & Molina-Castillo, 2008). Study by Nisar and Prabhakar (2017) also highlighted that consumers are discouraged from using e-

commerce as they are not able to physically assess the product before purchasing resulting in them purchasing a product they not want.

Lack of information transparency can negatively affect the consumers' intention to purchase a product. Therefore it is important for e-retailer to ensure that product information is available and easily accessible to the consumer and also easy to understand. For information to qualify as transparent, study showed it should contain product features, the quality of product, the retailers warranty policy and the ordering method (Zhou et al., 2018).

Security and privacy is also another important risk that consumers are exposed to when they use e-commerce. Security and privacy is a very sensitive aspect when it comes to e-commerce as customers are required to give their personal information and credit card details when they make a transaction. Identity theft and fraud can occur if this sensitive information falls into the wrong hands (P, Babu, & Vijayalakshmi, 2020). Reliability of e-retailers is important when it comes to the privacy of consumers as retailer can sell this sensitive information for their own advantage or misuse it (Nisar & Prabhakar, 2017).

#### Types of E-commerce

There are different types of e-commerce, the most traditional four being business-to-consumer (B2C), business-to-business (B2B), consumer-to-consumer (C2C) and consumer-to-business (C2B) (Nisar & Prabhakar, 2017).

B2B commerce involves two businesses usually wholesalers or retailers selling products and services to each other online. B2B commerce is defined as the trading of products and services between two companies, manufacturers and retailers, on online platforms. There are two models which are used by B2B companies, the direct model where companies set up their own platforms and sell directly to their buyers and the marketplace model where companies sell alongside other B2B sellers on platforms like Amazon and Alibaba (Statista, 2021). There two different types of B2B marketplaces which include Vertical B2B marketplace and Horizontal B2B marketplace. Vertical B2b marketplaces allows buying and selling between businesses belonging to one particular industry, for example an automotive business is connected to other businesses that supply automotive products and services. Horizontal B2B marketplaces allows commerce between businesses in different industries and segments (Bruce, 2019). Due to covid-19, B2B buyers have had to make purchases online with more than a third of buyers purchasing weekly from B2B e-commerce sites and more than 80% purchasing per month as of April 2021. Majority of buyers stated they found purchasing from e-commerce sites during the pandemic to be more efficient, cost saving, gives them a broader selection and more information availability (Brohan, 2021). According to Statista (2021), the largest B2B ecommerce companies are Amazon, a U.S company with \$25 billion net sales as of 2020, Alibaba with a share of 30% in China, Rakuten, Mercateo, Global Sources, Walmart and IndiaMart.

B2C commerce is when businesses sell products and services to consumers via online channel (He, Zhang, & He, 2019). In 2013, the B2C sales in America amounted to almost 35% of the global B2C e-commerce sales (Nisar & Prabhakar, 2017). In 2017, B2C e-commerce accounted for 60% of the total e-retail sales in China (He, Zhang, & He, 2019). The retail e-commerce sales globally were estimated at 4.29 trillion USD in 2020 with Covid-19 pandemic amplifying its growth (Young, 2021). Chevalier (2021) report showed that eBay is one of the most used e-commerce platform with 161 million active buyers worldwide in the second quarter of 2020 and 159 million active buyers globally in the second quarter of 2021.

C2C commerce is when end users sell or purchase goods directly to other end users on online marketplaces like eBay, Amazon marketplace and Craigslist to name a few. There are many types of C2C platforms, the main ones include auction platforms (Leonard, 2012) were sellers auction their goods at a minimum price and buyers bid on the goods until the buyer with the highest offer wins, exchange of goods platforms which allow buyers and sellers to exchange physical goods, exchange of service platforms which allow the buying and selling of services and payment platforms which provide payment gateway for C2C sales on other platforms like PayPal (MasterClass, 2021). Pasquali (2021) report showed that the most visited C2C e-commerce platforms by consumers were platforms that specialized in fashion like Poshmark.com which had 31.66 million monthly visitors globally and Thredup.com with 7.71 million monthly visitors as on May 2020. Taobao, which is owned by Alibaba, is the leading C2C ecommerce platform in China (Bueno & Gallego, 2021).

C2B commerce is when individuals provide their services and name their price and businesses compete to meet the needs of the customer. This model has been used when businesses use social media influencers' services to market their brands (Bigcommerce, 2021). A reverse of B2C is seen with this type of commerce as there is a shift of pricing power from the business to the consumers. Consumers collectively bargain to merchants and name the price of what they are selling (Zhang, Ming, Liu, Qu, & Yin, 2019).

#### *E-commerce Platforms*

E-commerce platforms allow retailers to sell products and services to consumers and consumers to purchase products and services. The introduction of web 2.0 has increased the number of e-commerce platforms where retailers can communicate with customers (Nisar & Prabhakar, 2017). The most popular online e-commerce company worldwide is Alibaba, with market cap of 614.8 billion USD followed by Amazon with its market cap being estimated at 1,735 billion USD as of June 2021 (Statista, 2021). Coppola (2021) report showed that in 2020, Alibaba, Taobao and Tmall made up 30% of the global e-commerce market, and Amazon accounted for 13% of the e-commerce market. EBay accounted for 2% of the global e-commerce market and JD.com accounted for 9%. Report also stated that Asia was the dominating region in e-commerce market, with China having the most users in the region. In 2019, Asia alone had e-commerce revenues of over US\$1.11 trillion. Amongst these, other popular e-commerce platforms include Rakuten, Mercateo, Global Sources, Walmart and IndiaMart.

E-commerce platforms allow users to leave online reviews and ratings on products they have purchased. Studies have proven these reviews to be important in the customers' decision making process, as they provide the customer with information about the product and contribute to whether the customer will purchase the product or not. The reviews provided on the platforms are both positive and negative, allowing the customer to assess the advantages and disadvantages of the particular product. Given the amount of reviews a customer can find on a product, it is important for the e-commerce platforms to present the most reliable and useful reviews on the product page in order to help the customer make a decision whilst avoiding information overload and increasing the platform's product sales. The sequence of the reviews is also important as studies have shown that customer focus more on the negative reviews, which can reduce the customer's intent to buy the product, lowering the product sales. Therefore it is important for the platform to balance between the positive and negative reviews, giving the customer the chance to make an unbiased cons and pros list of the product. Other important review characteristics found in studies include the amount of reviews on the product, the more reviews a product has, the more customers will trust the product and deem it reliable and the more information they will get about product. Content in the review is also important, content that address the features of the product, its performance and the benefits and risks of it. The persuasiveness of the review of the review is also important, which is determined by the credibility of the source (Kaushik, Mishra, Rana, & Dwivedi, 2018).

#### Security and Privacy of E-commerce

Security and privacy refer to the unauthorised access or disclosure of users' confidential financial data and personal information. There are two main types of privacy which include user data privacy and user behaviour privacy. User data privacy includes privacy of users' identity (identification number, name, address etc.) and information on the users' background (occupation, nationality etc.). User behaviour privacy includes the privacy of users' sensitive preferences when interacting with commerce sites (Wu, et al., 2021).

E-commerce platforms and the retailers should take measures to reduce the disadvantages that come with using e-commerce. Providing terms and conditions and privacy policies that customers can read before purchasing is one way to do this. Implementing (authentication). Furthermore addressing customers' complaints after their purchase and offering compensation for their troubles e.g. refunds will help the companies to regain trust with their customers, increase the customers' satisfaction and ease consumers' worries about using e-commerce for purchases. This process is known as redress (Ong & Teh, 2016).

Because e-commerce transactions require customers to make payments electronically on the open internet, this increases the risk of theft and hackers gaining access of information provided during the transaction. Therefore it is important to implement electronic payment protocols to ensure the protection and integrity of these electronic transactions. One of the most famous and supported security protocol is the Secure Electronic transaction provided during an electronic payment transaction. It is applied during payments made with credit cards and was established by MasterCard and visa card in 1996. SET protocol works by providing both customer authentication and order information by using encryption and ensuring integrity of message (Xu, Huang, & Mi, 2020). 3-D secure is another popular security protocol, which focuses on the

client's authentication that has since replaced SET. 3-D secure was developed by VISA, and is adopted by financial services like MasterCard as SecureCode and American express as American Express SafeKey (Plateaux et al., 2018).

#### **Consumer Trust**

Online transactions come with a lot of risk for the customers, making the customers' trust in the merchant very important. Angriawan and Thakur (2008), defined online trust as the customers' confidence in a merchant' reliability and integrity to successfully perform online transactions.

When customers use e-commerce and make online transactions, they are exposed to many risks which include fraud, contract default, low quality products or counterfeit products and late or cancelled deliveries. During an e-transaction, customers are required to provide sensitive personal information like credit card details and addresses, making perceived security and privacy risk one of the major factors that contribute to customers not trusting e-commerce and in turn not using it. Because of these risks, it is important for merchants to build the customers' trust so as to help them overcome these perceived risks and uncertainties (Peštek et al., 2011). Important factors that help develop customers' trust, according to Peštek et al. (2011) study include, website's ease of use, security, privacy, products' expected performance, loyalty and electronic customer relationship management.

Fernández-Bonilla et al. (2021) study using the logit model to determine factors that develop e-trust, highlights that trust has a big impact on the customers' intention to use e-commerce. Study found that security has a negative influence on the consumers trust. Customers are greatly concerned about their information and how it will be used by companies therefore lack of security will result in low levels of customers' trust and use of e-commerce. Study also found users' digital skills, knowledge of the internet and their regular use of it, increases their level of trust and growth of e-commerce. Post-purchase treatment is just as important as treatment before and during transaction as it helps to develop customer loyalty which in turn increases the customer's trust and their intention to continue purchasing from the online merchant (Fernández-Bonilla et al., 2021). Research also highlighted that trust influences the customers' intention to use online shopping, if customer feels that an e-merchant is not trustworthy, they will refrain from purchasing from the merchant until they consider otherwise.

#### Consumer Satisfaction

Satisfaction is defined by Ives et al. (1983) as the feeling of content a customer gets as a result of the comparison of their expectations against the actual outcome of shopping online. Satisfaction is also defined by Chen and Dubinsky (2003) as a customer's emotional decision in reaction to the latter experience they have had with a retailer when purchasing a product or service. Author also defined satisfaction as the customers' collective satisfaction from dealing with a specific e-retailer overtime. Consumer satisfaction is an important factor when it comes to the success of an online retail as it encourages customer loyalty and influences the customers' intention to purchase or repurchase (Kumar & Ayodeji, 2021). To et al. (2007) study highlights two consumer values that decide customers' motivation to shop from e-retailer, these are hedonic and utilitarian motivation. Hedonic motivation focus on the excitement and enjoyment gained from the experience of using online shopping whereas utilitarian motivation are goal oriented and focus on the functions related to specific tasks. Utilitarian customers find convenience of online shopping, cost saving and information availability to be more important.

Kumar and Ayodeji, (2021) study on the hedonistic shopping values and utilitarian shopping values and their relation to customer satisfaction and repurchase found that both hedonistic values and utilitarian values have a positive on customers' satisfaction and their intention to purchase or repurchase. The study also found that information quality provided by the website has a positive effect on the users' satisfaction and so does the performance of the website. Users' satisfaction achieved from these two factors further lead to retention which is important to the success of the retail store. Quality of the service provided, customers trust in the retailer and the net benefits gained from performing an online transaction also had a positive impact on the user satisfaction. Nisar and Prabhakar (2017) study found that customer satisafction has a positive influence on the customers spending and that the servive quality, satisfaction and loyalty encourage the customers' online spending.

#### Covid-19

The world has witnessed a few epidemic outbreaks in the past few decades, including severe acute respiratory syndrome (SARS) in 2003 and H1N1 (Swine flu) in 2009 (Tran, 2021). Covid-19 is currently an ongoing pandemic. It is a coronavirus disease that is caused by SARS-CoV-2. The first cases of Covid-19 were reported in

China, Wuhan City in late December 2019. On the 24th of January 2020, WHO advised international traffic to implement measures that will limit the spread of the virus across borders like temperature screening all travellers. The coronavirus was declared a public health emergency of international concern (PHEIC) on the 30th of January, 2020 by the Director-General of WHO. On March 11th 2020, WHO characterized Covid-19 as a pandemic (World Health Organization, 2020).

Different measures were taken worldwide by governments to try and contain the virus and it's spreading which included social distancing and grounding all international flights. For a couple of months, majority of countries worldwide went on lockdown to reduce mass movement and typical family, friends or business gatherings in hopes that this will reduce the rate at which the virus was spreading. Non-essential businesses like restaurants, bars, retail stores were temporary closed leaving consumers to rely on online services and other non-contact services for their day to day needs (Guthrie, Fosso-Wamba, & Arnaud, 2021).

Due to the ongoing pandemic, the restrictions that were put into place like temporary lockdown and closure of non-essential businesses, consumers worldwide have resorted to using e-commerce to purchase goods and services changing the trend lines of e-commerce. Prior the Covid-19 pandemic, increases in global e-commerce sales were seen every year as a result of consumers becoming more comfortable doing their transactions online and businesses improving their operating models. Global e-commerce sales in 2018 where estimated at \$2.93 trillion and increased to \$3.46 trillion in 2019. However an even higher growth of 24.1% was estimated in 2020 as the sales increased to \$4.29 trillion (Young, 2021). According to Davis (2021) report, 59.1% of the global e-commerce sales in 2020 were accounted for by Asia and Asian consumers purchased online goods worth of US\$2.118 trillion in 201 and US\$2.525 trillion in 2020. Report also showed that China accounted for more than 59% of the region's online retail sales and 34.9% of global online retail sales in 2020.

A growth in teleworking was also reported, with 63.7% of companies based in Japan- implementing teleworking in June, 2020. Most companies resolved to their employees working from home as a result of the lockdown and the temporary closure of non-essential businesses. Schools were also temporarily closed, leading to schools implementing online learning for their students. 91% of universities in Japan implemented only online learning, whilst 9% had hybrid learning with both online and face to face learning. With these measures being taken, in addition to the stay-at-home

protocol, this meant people's movement to physical stores and places they would normally visit every other day prior Covid-19 pandemic were limited (Kawasaki et al., 2021).

The food delivery industry is one of the industries that saw an increase in sales as customers relied on food delivery during the pandemic. Studies show an increase in sales in the food delivery industry, with sales in 2019 being \$107.4 billion, a 17.5% increase from 2018. With the social distancing and stay at home protocols in place, restaurants were forced to change their business model to "online to offline" in order to survive the pandemic. Allowing physical restaurants to deliver food to customers at their homes. Food delivery applications acted as a medium between these restaurants and customers, as customers would order food from variety of restaurants enlisted on the applications. This form of delivery proves to be convenient for the customers as they can maintain social distancing whilst saving time, access a wide range of restaurants in the comfort of their home and also easily compare prices (Zanetta, et al., 2021).

#### **Related Research**

Kawasaki et al. 2022 conducted study to analyse the psychological changes in consumers' behaviour's intention to use e-commerce before Covid-19, during the first spread and the second spread of covid-19. The study gathered panel data of Japanese customers and analysed this data using descriptive analysis and statistical test. The results from the study found that there was an increase in the stay at home duration after the Covid-19 outbreak and a decrease in outdoor shopping. A positive relationship was seen between the time spent at home and the necessity of e-commerce as participants who found e-commerce to be necessary stayed at home for longer. Participants who found e-commerce to be useful had higher probability of continuing to use it than the participants who used it to avoid health risks. Study showed that the importance of e-commerce was seen by participants' right after the Covid-19 pandemic and younger females made use of e-commerce more than other participants. Overall many of the participants in the study found e-commerce to be useful, convenient and important and for that reason, study suggests that e-commerce will continue to grow in the future.

Eger et al. 2021 study focused on trends and impact of the covid-19 pandemic on the buying behaviour of consumers of different demographic generations in Czech Republic in relation to fear, from the start of the second spread of Covid-19. The study conducted a questionnaire survey using online panel and used descriptive statistics and multiple regression to analyse the collected data. Results from study found that the fear of their health prompted participants to purchase new items with quality, availability and convenience of items being an important contributing factors in their decision. In relation to demographic generations, study found that generation B, generation X and generation Y similarly feared more for the health of others than job loss during the second spread of Covid-19. The study showed that fear during Covid-19 has an influence on the change in consumer behaviour, as higher levels of fear increased the changes in consumer's shopping behaviour.

Study by Beckers et al. 2021, in Belgium to assess if Covid-19 will increase the growth of e-commerce in Belgium by looking at both consumer perspective and retailers perspective, compared the online purchases of food and non-food products (local and franchise companies) made prior Covid-19 to those made during the first wave of Covid-19 pandemic. Results from the study showed that there was increase in food purchases (local and franchise) and non-food purchases (local and franchise). Non-food franchise category had the most purchased items. Local food online purchases had the most increase of 110% due to restaurants closing and locals having to order online. For local retailers, results from the study indicated that retailers significantly responded to the pandemic by creating online sales channels for their businesses in order to withstand the effects of the lockdown. Before Covid-19 pandemic, March 2020, only 40% of the retailers had an online sales channel. During the first pandemic wave lockdown the number of small businesses with online channel increased to an estimation of 70%. Results show that an increase in the use of ecommerce in the area of study during Covid-19 is evident.

Zanetta, et al., 2021 study examined the use and the consumers' intention to continue using food delivery applications during the Covid-19 in Brazil. Study used questionnaire method and the Unified Theory of Acceptance and Use of Technology 2 model. Results from the study found that performance expectancy had a great influence on consumers' intention to continue using FDA. Habit also had a great influence on continuation use. As consumers frequently use FDA, this can in turn strengthen the habit of using food delivery applications. Results also showed that solidarity also had a significant effect on consumers' continuation use of FDA.

Intention to use FDA reduced consumers' risk perception minimizing awareness of health risks.

Laato et al., (2020) study investigated the unusual buying behaviour experienced worldwide during the beginning of the Covid-19 pandemic and how online information sources affect the changes in consumer behaviour. The study used online survey method and analysed data collected from Finnish participants using PLS-SEM. Results from the study found that there was a relation between intention to self-isolate and unusual purchasing behaviour. Study went on to conclude consumers' unusual purchase behaviour during the beginning of covid-19 was due to preparation of quarantine. Study also found that online information sources and information overload increased cybercondria in participants, and cybercondria had an influence on the participants' unusual purchasing behaviour and voluntary self-isolation. This is supported by Anastasiadou, (2020) study that overload of information in Sweden contributed to the unusual excessive purchasing of goods.

In response to the reported increase in consumer panic buying behaviour at the beginning of the covid-19 outbreak, Naeem (2021) study explored the role of social media and its contribution to customers' panic buying behaviour during the Covid-19 pandemic crises. The study used purposive sampling and used telephonic interviews to collect data from UK. The findings of the study found that social media enhanced social exchanges between people around the world resulting in social influence which increased customer panic buying. Some of the ways in which social media increased panic buying included, posts and videos showing proof of product unavailability, proof of uncertainties and insecurities, communication (speeches and advice) from authorities through social media platforms, persuasion from friends and family on social media to purchase extra food products, opinions and recommendations from experts on social media and social media also created global logic which led to panic buying as customers from one country learn of experiences from another country and prepare for uncertainties in advance.

Gao et al. (2020) study conducted an online survey in China to determine the effect of Covid-19 on the use of e-commerce and purchasing food from online platforms. Results from study show a high number in positive Covid-19 and as a result, study showed that consumers who perceive they are at a higher risk of becoming infected by purchasing online are less inclined to purchase food online and consumers with less perception of risk of getting infected through shopping online are more

inclined to purchase food online. Results also showed that in relation to age and high number Covid-19 cases, younger people are more likely to purchase food online than older people possibly due to having lower risk perception.

Alaimo et al. (2020) study investigated the factors that affect consumers' behaviour in adopting online shopping for groceries during the Covid-19 pandemic and consumers intention to continue using it based on their perception and expectations. The study used survey method and distributed questionnaire online. Data was collected from a sample of Italian consumers constructed using snowball sampling method. Study used the proportional odds version of the cumulative logit model. According to study, level of education has an influence on satisfaction with shopping experience as results showed that people with a degree are more likely to be satisfied with the experience of food online shopping. Study also showed that familiarity with purchasing food online has positive influence on satisfaction with food online shopping experience. People who found buying food online saves time, are more likely to be satisfied. People who perceive that buying food online saves time, are more satisfied than those who do not.

Guthrie et al. (2021) conducted study in France to understand changes in consumers' online shopping behaviour during life changing events such as a pandemic using the react-cope-adapt framework. The study implemented the descriptive single case research design and used a France pharmaceutical retailer as a case study. Results from the study showed that the online purchasing of products that lower the risk of spreading germs like disinfectants was seen in the react stage, showing the consumers' reaction to the pandemic. The purchasing of self-care products and well-being products in the coping stage displayed emotional coping for the consumers. In the adapting stage, there was an increase in the purchase of health products showing the consumers' way of coping and adjusting to the current health issue (Covid-19).

Nisar and Prabhakar (2017) study on the effect that customer satisfaction has on consumer spending in the United States e-commerce retail and factors that affect customer satisafaction using panel data analysis and regression analysis. Study found that customer satisafction has a positve influence on the customers' spending, high levels of satisfaction result in high levels of consumer spending. Study also found that e-service quality is important as it positively affects customers' satifaction, high levels of e-service quality result in high levels of customer satisfaction. Study shows the Watanabe and Omori (2020) study using credit card transactions data, investigated online consumption and if the increase in levels of online consumption seen during covid-19 will continue after spread of Covid-19 reduces. Study found that there was an increase in online consumption during the pandemic. Majority of the consumers who contributed to this increase were customers who were familiar with ecommerce and used it to purchase goods and sercvices online and offline prior Covid-19. A relative number of consumers who had never used e-commerce until the pandemic started due to the fear of getting infected, also contributed to this increase. In relation to age, study found that more younger consumers switched to online consumption than older more towards used e-commerce more than senior consumers. Forecast results of the study suggest that the increase in online consumption seen during Covid-19 will reduce to some extent as the risk of infection of Covid-19 decreases.

Pascual-Miguel (2015) study on determing the difference in genders acceptance and use of e-commerce using the extended unified theory of acceptance and use of technology (UTAUT<sub>2</sub>) model with an addition of perceived risk and trust. Study found that when it comes to intention to use e-commerce in male shoppers, facilitating conditions, performance expectancy, perceived trust and perceived risk significantly influences their intention to use e-commerce. In female consumers, study found that perceived risk, effort expectancy, performance expectancy, social influence and faciliting conditions predict their intention to purchase. Study also found that where the type of product (digital and non-digital) is concerned, perceived risk significantly influences intention to purchase products more in female than male shoppers.

Unnikrishnan and Figliozzi (2021) study explores the effect of covid 19 on home deliveries. Results showed there was an increase in the number of home deliveries made during Covid-19 compared to prior Covid-19. Results showed that participants who made purchases online before the pandemic are more likely to make more deliveries during Covid-19. Households with more than one worker are more likely to make more purchases during the pandemic and less after the pandemic. Participants who work full-time from home were more likely to make more home deliveries during the Covid-19 pandemic and after covid-19 than before the pandemic. Results also showed that the likelihood of making higher number of home deliveries after covid-19 than before and during Covid-19 is more in participates who have experience with technology.

Studies have shown that the Covid-19 has had an influence on consumers' behaviour with reports of panic buying and stockpiling during the beginning of the Covid-19 pandemic. Some studies reason that this behaviour could have been due to the preparation of quarantine and due to information overload from online sources. During the Covid-19 pandemic, studies have reported an increase in the use of e-commerce as some consumers have come to realize its' importance during a time where less physical contact is advised for the safety reasons. The temporary closure of businesses in some parts of the world and lockdowns have too prompted this growth in e-commerce.

## CHAPTER III

#### **Research Methodology**

This chapter includes the research design, participants, data collection tools, data collection procedure, data analysis and reliability and validity of the instruments used.

#### **Research Design**

Descriptive research design is used for this study. The survey method is used for data collection, through a questionnaire created by Google forms tool. The questionnaire includes demographic questions and behavioural questions. The third section includes questions of the participants' view of e-commerce during Covid-19, which consists of 5 dimensions and 23 items, namely perceived security, trust, satisfaction, usefulness and intention to continue using as shown in Figure 1.

#### Figure 1

Research Model of the Study



#### **Research Participants**

This study was open to participants of all nationalities. The participants comprised of both males and females, 52.7% of the respondents were male and 47.3% were female. Study required participants to be age 16 and above, and majority of the

participants were between ages 16 to 26, 49.6% of the total responses. Questionnaire responses were collected during the 2020-2021 Spring semester. The final total number of responses after removing defective responses was 419. Students was the highest occupation with 199 of the participants marking student as one of their occupations. Table 1 represents the participants' demographic information.

#### Table 1.

Demographic Variables		Frequency	Percentages
Gender	Male	221	52.7%
	Female	198	47.3%
Age	16-26	208	49.6%
	27-37	117	27.9%
	38-48	38	9.1%
	49-59	22	5.3%
	60-70	16	3.8%
	71-81	12	2.9%
	82-92	6	1.4%
Occupation	Student	199	47.5%
	Employed	113	27%
	Self-Employed	54	12.9%
	Unemployed	33	7.9%
	Military	13	3.1%
	Unable to work	6	1.4%
	Retired	27	6.4%
	Widow	4	1%
	Housewife	3	0.7%
Nationality	American	15	3.6%
	Azerbaijan	1	0.2%
	Bahrain	2	0.5%
	British	8	1.9%
	Burundian	2	0.5%
	Canada	1	0.2%
	Cameroon	2	0.5%
	Egyptian	14	3.3%
	German	9	2.1%
	Ghana	3	0.7%

Demographic Information of Participants (N=419)
Table 1 (Continued).

Greek	8	1.9%
Greek Cypriot	3	0.7%
Indian	1	0.2%
Iraqi	10	2.4%
Iranian	9	2.1%
Irish	1	0.2%
Italian Nigerian	1	0.2%
Kenyan	19	4.5%
Malawian	1	0.2%
Namibian	12	2.9%
Niger	1	0.2%
Nigerian	67	16.0%
Pakistanian	7	1.7%
Palestinian	1	0.2%
Polish	9	2.1%
Sierra Leonean	1	0.2%
Somalian	2	0.5%
South African	11	2.6%
Sudan	3	0.7%
Syria	1	0.2%
Turkish	3	0.7%
Turkish Cypriot	7	1.7%
Uganda	2	0.5%
United Kingdom	1	0.2%
Yemeni	1	0.2%
Zimbabwean	180	43.0%

## **Data Collection Tools**

This study used questionnaire to collect data from participants. Questions in the questionnaire were developed by the researchers using Google Forms. Appendix 1 contains the data collection tool used for this study. An application for approval to conduct the survey was made to the ethical committee before distributing questionnaire to participants. Upon approval, the questionnaire was distributed using online method through email and social media platforms. Appendix 2 contains the letter of approval from the Ethical Committee. The questionnaire comprised of three sections which include:

Section 1 Demographic Information: this section includes questions that obtain the participants demographic information which includes their gender, age, occupation (one or more) and their nationality.

*Section 2 Participants' Behaviour*: this section includes questions to assess the participants' behaviour, which include their internet usage, how often they made online purchases in a month before and during Covid-19, the products and services they purchased online before and during Covid-19, preferred devices for when making online purchases and their method of purchasing before and during Covid-19, physical store or e-commerce.

Section 3 View of e-commerce during Covid-19: this section includes 23 items divided into five parts to assess the participants' view of e-commerce during the Covid-19 pandemic. The dimensions include

- Perceived security; the participants' view on e-commerce's security. Perceived security includes item 1, item 2, item 3, item 4 and item 5.
- Trust; participants' trust in e-commerce during Covid-19. This dimension contains item 6, item 7, item 8, item 9 and item 10.
- Satisfaction; participants' satisfaction with using e-commerce during covid-19. Items included in this dimension include item 11, item 12, item 13, item 14 and item 15.
- Usefulness; if participants found e-commerce to be useful during Covid-19 pandemic. Items included in this dimension include item 16, item 17, item 18 and item 19.
- Intention to continue using; if participants intend to continue using ecommerce after Covid-19. Items included in this dimension include item 20, item 21, item 22 and item 23.

The questions used a 5 Likert scale of always, often, sometimes, rarely and never to rank the participants responses, 5 points being "always" and 1 point being "never".

## **Reliability Test of Survey Dimensions**

SPSS was used calculate Cronbach's Alpha to test the reliability of the questionnaire scales. Usefulness dimension had the highest Cronbach's alpha of .653 and Intention dimension had the lowest Alpha of .489. The overall Cronbach's Alpha for all dimensions was .721.

Table 2

Reliability Test of the Questionnaire

Dimensions	N of Items	Cronbach's Alpha
Perceived Security	5	.566
Trust	5	.534
Satisfaction	5	.614
Usefulness	4	.653
Intention to Continue Using	4	.489
Cronbach's Alpha for Overall Items	23	.721

## **Research Procedure**

This study used a survey questionnaire to collect data. Questionnaire was divided into three parts, demographic questions, behavioural questions and participants' view. Questionnaires for this study were distributed via email and social media in order to efficiently reach participants from all over the world. The questionnaire was open to any volunteers ages 16 and above who wanted to participate. Number of responses acquired at the end of the data collection was 430, however 11 of the responses were incomplete and therefore could not be included in the study, leaving the total number of responses at 419. Reponses acquired were saved onto the Google cloud and could only be accessed by the researchers with a requirement of their email address and password. Data was then exported to excel spreadsheet and imported to SPSS for statistical analysis. The data collected from all three parts is analysed using IBM SPSS Statistics version 28.0.1.0 (142). Negatively worded items which included item 1, item 2, item 3, item 5 and item 12 were reversed before statistical analysis using SPSS recode method. Descriptive statistics (frequencies, percentage, and descriptives) and independent t-test were implemented to analyse all the data. The results were interpreted and presented in the form of tables and figures and were further explained in the study.

#### CHAPTER IV

#### **Results and Discussion**

This chapter includes the findings and discussion of the study.

## **Participants Behaviour**

## Findings for Participants' Internet Usage per Day

Data collected from the 419 responses as shown in Table 3, showed that majority of participants, 123 participants, use the internet for 4 to 7 hours per day (29.4%). 113 (27%) of the respondents use the internet for 12 and above hours. 106 participants marked that they use the internet 8 to 11 hours per day (25.3%) and 77 participants marked that they only use the internet for 1 to 3 hours (18.4%).

According to Johnson (2022) report, as of 2021 the number of internet users worldwide stood at 4.9 billion, with the average time spent on the internet per capita globally being 2 hours 50 minutes.

## Table 3

Hours /day	F	%
1-3	77	18.4
4-7	123	29.4
8-11	106	25.3
12+	113	27.0

Internet Usage per Day

## Findings for Online Purchases Made in a Month

Participants were asked to mark the amount of times they make purchases online, before Covid-19 and since Covid-19 started, the results collected are as shown in Table 4. Before Covid-19, 106 participants (25.3%) indicated that they never made purchases online before Covid-19. 182 participants (43.4%), which was the majority of the total respondents, marked that they made purchases online 1 to 3 times per month. 61 participants (14.6%) made online purchases 4 to 6 times and 33 participants (7.9%) purchased online 7 to 9 time per month. 37 of the respondents representing 8.8% marked that they had made online purchases 10 or more times per month before Covid-19.

Results show that since Covid-19 started, the number of participants who have never made a purchases online have decreased to 63 participants (15%), which is 43 participants (10.3%) less than before Covid-19. Participants who purchase online 1 to 3 times since Covid-19 have decreased by 6.4% to 155 participants (37%), while the number of participants who have made online purchases 4 to 6 times have increased by 8.8% to 98 participants (23.4%). Number of participants who have made online purchases 7 to 9 times since Covid-19 have also increased by 5.2% to 55 participants (13.1%), which is 22 more compared to before Covid-19 and those have purchased 10+ times have increased by 2.7% to 48 participants(11.5%).

The comparison of the before Covid-19 and since Covid-19 results show that, the amount of online purchases made by the participants have increased since covid-19 started, with purchasing online 4 to 6 times per month having the highest increase of 8.8 %.

These results are similar to (Wiścicka-Fernando, 2021) study's results, which found there was an increase in the number of online shopping transactions made per month during covid-19 than before Covid-19 using mobile phone applications. Total online transactions made before covid-19 were 235 and the total online transactions made online during covid-19 according to the study, were 439. The study argues that the increase in online shopping transactions during covid-19 can be a result of people's fear of getting infected by the virus, therefore opting for the option they view is safer.

## Table 4

Number of purchases	Before Covid-19		Since C	Covid-19
	Ν	%	Ν	%
Never	106	25.3	63	15
1-3	182	43.4	155	37
4-6	61	14.6	98	23.4
7-9	33	7.9	55	13.1
10+	37	8.8	48	11.5

Online Purchases Made Per Month, Before Covid-19 and Since Covid-19

## Findings for Products and Services Purchased Online Before Covid-19

Figure 4 shows that the most used online service by participants before Covid-19 was online banking. Second most purchased product and/or service was leisure/entertainment and third was Fashion. Other two most purchased products and/or services were electronics and food/groceries, respectively.

## Figure 2

Products/Services Purchased Online By Participants Before Covid-19



#### Findings for Products and Services Purchased Online Since Covid-19

As shown in Figure 5, since Covid-19, the most used e-commerce service is online banking. Food/groceries stands as the second most online purchased product and leisure/entertainment as the third most purchased service. Other most purchased online products also include fashion at number four and electronics at number five.



Products/Services Purchased Online By Participants Since Covid-19

The comparison of the two results as shown in Figure 6, show that before Covid-19 and since Covid-19, online banking remained the most used service by the participants, with an addition of 4 participants turning to online banking since covid-19 started. The second most purchased product before Covid-19 was leisure/entertainment which has changed to food/groceries since Covid-19. The number of participants who purchase food/groceries online since Covid-19 significantly increased by 19.6% as shown in figure 6. The second most significant increase from before Covid-19 to since Covid-19 is seen in the purchase of Health products, with an increase of 10.2%.

The significant increase in the purchase of grocery products is in accordance with Kawasaki et al. (2021) study which found a significant increase in grocery goods category after the Covid-19 outbreak. Report by Melton (2020) estimated that grocery online sales grew by 22.0% in 2019 and since the pandemic began, the global number of people buying online groceries has increased by 30.0%. Guthrie et al. (2021) reported similar findings with e-commerce sales for pharmacy and health products experiencing a large growth of +49% year on year change during the lockdown period in France. This change in most purchased products and the significant increase within products is an indication of the way in which the pandemic has changed the consumers' shopping priorities (i.e. shopping behaviour) and their lifestyles.



Comparison of Products and Services Purchased Online Before and Since Covid-19

#### Findings for Preferred Device When Making Purchases Online

Figure 7 shows that the most preferred device when making purchases online is the mobile phone, with 313 participants. Findings also showed that the second most preferred is laptop with 190 participants and the third preferred is the tablet with 89 participants from a population of 419 participants who participated in the survey.

Chevalier (2021a) report for the most preferred device for cross-border ecommerce in Belgium in 2016 and 2018, majority of the respondents selected computer as the most preferred device and the minority selected the smartphone. Report by Coppola (2021) for preffered device when shopping online in Russia and Eastern Europe, showed that 71% of consumers preferred using their laptop or computer. When asked which device they had used to make online purchases in 2021, 64% of respondents indicated they had used smartphones in the United States (Kunst, 2021)



Participants Preferred Device When Making Purchases Online

## Findings for Method of Purchase Used

Figure 8 shows findings for the method(s) used by participants to purchase products first before Covid-19 then since Covid-19 and these two time frames are compared to each against. Findings showed that 149 participants purchased only at the physical store before Covid-19 and 58 participants choose e-commerce as the only method of purchasing they used before Covid-19.

Since Covid-19, findings in Figure 8 show a significant decrease by 19.6% in the number of participants who have used physical stores for purchases since covid-19. 67 participants indicated physical store as the only method they have used for purchasing products and services since covid-19. On the other hand, findings show an increase in the number of participants who picked e-commerce as the method of purchasing they have used since covid-19. E-commerce increased by 14.3%, from 13.8% to 28.2%, with total of 118 participants.

These results are similar to results found in Beckers et al. (2021) study, which showed there was an increase in the online purchasing of food and non-food products during Covid-19 compared to prior Covid-19 in Belgium, showing an increase in the use of e-commerce during the Covid-19 pandemic. Alaimo et al. (2020) study also found there was a decrease in the trips made to physical stores when covid-19 started meaning there was a decrease in people's use of physical stores. Grashuis et al. (2020) argues that the preference of home delivery methods for grocery shopping like online shopping and curbside pick-ups are greater in consumers who reside in areas where the spread of Covid-19 is greater and less stronger in consumers residing where the spread of Covid-19 is lower and the importance of method of purchase is less in the consumers in environments with reduced spreading of covid-19.

## Figure 6



## Method of Purchasing Products and Services

## Findings for Platforms Used When Purchasing Online

Figure 9 shows the e-commerce platforms that participants use to make different online purchases. Findings show that the majority of participants use social media to purchase products on social marketplaces like Facebook and Instagram. Amazon is the second most used platform, with 133 of the study's participants using it. The third most used platform is AliExpress by 115 participants and the fourth is E-bay 62 participants using it.

According to (Droesch, 2021) report, Amazon's U.S sales prior to the pandemic were expected to reach \$260.86 billion in 2020 but however sales grew and reached US\$318.41 billion in 2020, with 44.1% of total e-commerce sales in the US. Lebow (2021) estimated that Amazon's e-commerce sales would reach US\$386.40 billion, 41.4% of all US retail ecommerce sales by the end of 2021. According to report by Chevalier (2021), Amazon market share accounted for 41% of the United States e-commerce market as of October 2021.



Platforms Used by Participants When Purchasing Online

## Participants' View of E-commerce during Covid-19 Pandemic

Descriptive statistics was used to analyse the data collected from the questionnaire in order to examine how participants have viewed e-commerce during the Covid-19 pandemic. Table 5 shows the mean and standard deviation of every item in each dimension, with the highest mean being 3.60.

## Table 5

Descriptive Statistics from Questionnaire on Customers' View of Ecommerce during Covid-19.

Items	Mean	Std. Dev
Perceived Security		
1. I feel e-commerce sites are not secure for me to send	3.13	1.27
sensitive information		
2. I do not feel safe providing sensitive information about	2.82	1.27
myself on e-ecommerce sites		
3. I am not confident that e-commerce platforms will	2.66	1.23
protect me against any potential risks (e.g., personal		
information leakage, credit card fraud, etc.) if something		
goes wrong with my online purchase		

Table 5 (Continued).

4. I am sure that e-commerce platforms do not take	2.96	1.21
advantage of me (e.g., personal information leaking,		
credit card fraud, etc.) as a result of purchasing online.		
5. Overall, I have found e-commerce not safe to transmit	3.00	1.23
sensitive information		
Trust		
6. The performances of e-commerce sites have met my	3.28	1.17
expectations during Covid-19.		
7. E-commerce has been reliable during Covid-19.	3.32	1.18
8. E-commerce is trustworthy.	3.14	1.03
9. I can count on e-commerce sites to protect my privacy.	2.77	1.15
10. Based on my experience, e-commerce sites are honest	3.10	1.17
websites.		
Satisfaction		
11. I am satisfied with the shopping experience I have had	3.27	1.12
on e-commerce sites during Covid-19		
12. I am not pleased with the experience of using the e-	3.34	1.17
commerce sites during Covid-19		
13. I am very satisfied with the efficiency and	3.23	1.12
effectiveness of e-commerce sites during Covid-19		
14. I am satisfied with the services that are provided on	3.22	1.11
the e-commerce sites.		
15. In overall, i am happy with using e-commerce during	3.34	1.16
Covid-19		
Usefulness		
16. E-commerce enables me to acquire product	3.33	1.17
information more efficiently		
17. E-commerce helps me to make product choices more	3.30	1.24
effectively		
18. Using e-commerce saves me time	3.60	1.19
19. Overall, I find using e-commerce useful in my	3.51	1.12
shopping experience		
Intention		
20. I will keep using e-commerce	3.48	1.20
21. I will speak positively about e-commerce to people	3.45	1.16
around me		
22. I do not connect to e-commerce sites if I am not	3.10	1.26
buying anything from them		
23. I am planning to buy products from e-commerce sites	3.49	1.08
if I find them interesting		

According to our results in Table 4, Usefulness dimension had the highest mean of all five dimensions (M=3.44, SD= .827). The mean indicating that most participants have found e-commerce to be useful during Covid-19. This is be due to the fact that they are able to purchase and make transactions online from their homes during a time were social distancing and less movement to crowded places is encouraged. This is in consistency with Kawasaki et al. (2021) study, which highlighted that many respondents found e-commerce to be important and useful after the Covid-19 outbreak. Two of the items in the useful dimension had the highest mean of all the items, item 18 "Using e-commerce saves me time" (M=3.60, SD=1.19), showing that participants found that using e-commerce often saves them time and item 19 "Overall, I find using e-commerce useful in my shopping experience" (M=3.51, SD=1.12), indicating that most participants have often find using e-commerce for shopping to be useful.

The Intention to continue using dimension had the second highest mean among all five dimensions (M=3.38, SD= .73778). Item 23, "I am planning to buy products from e-commerce sites if I find them interesting", had the third highest mean (M=3.49, SD=1.08) and item 20 "I will keep using e-commerce" was the fourth highest mean (M=3.48, SD=1.20) showing a moderately high number of customer intend to continue using e-commerce. This is in accordance to Kawasaki et al. (2021) study which found that customers are more likely to continue using e-commerce especially if they found it to be useful.

Item 3 "I am not confident that e-commerce platforms will protect me against any potential risks (e.g., personal information leakage, credit card fraud, etc.) if something goes wrong with my online purchase" in perceived security dimension had the lowest mean (M=2.66, SD=1.23), showing the lack of confidence participants have in e-commerce platforms when it comes to protecting them from security risks. The second lowest mean was item 9 "I can count on e-commerce sites to protect my privacy" (M=2.77, SD=1.15), indicating a low level of trust in sites where protection of participants' privacy is concerned. Item 2 "I do not feel safe providing sensitive information about myself on e-ecommerce sites" had the third lowest mean (M=2.82, SD=1.27) indicating participants do not feel safe providing their sensitive information on e-commerce.

Table 6 shows the overall mean and standard deviation of study's dimensions, perceived security (M=2.91, SD= .752), trust (M=3.12, SD= .675), satisfaction

(M=3.28, SD= .713), usefulness (M=3.44, SD= .827) and intention to continue using (M=3.38, SD= .738).

## Table 6

Mean and Standard Deviation of Dimensions

Dimensions	Mean	Standard Deviation
Perceived Security	2.91	.752
Trust	3.12	.675
Satisfaction	3.28	.713
Usefulness	3.44	.827
Intention to Continue	3.38	.738
Using		

## Participants' View of E-Commerce Based on Gender

Independent-samples t test was conducted in order to better understand participants' view of e-commerce during the Covid-19 pandemic based on gender differences. Table 6 presents an overview of the results of independent sample t test

#### Table 7

The Difference between Participants' Views of E-Commerce during the Covid-19 Pandemic Based on Gender

Dimension	Gender	N	Mean	SD	Mean Difference	t	р
Perceived	Male	221	3.03	.72	.25	3.49	<.001
Security	Female	198	2.78	.76			
Trust	Male	221	3.14	.68	.05	.77	.44
	Female	198	3.09	.67			
Satisfaction	Male	221	3.31	.70	.06	.82	.41
	Female	198	3.25	.73			
Usefulness	Male	221	3.42	.84	- 04	- 46	.65
Corumess	Female	198	3.46	.82			100
Intention	Male	221	3.42	.71	.08	1.08	.28
	Female	198	3.34	.77			

Results from the statistical analysis show that in the highest recorded mean, females have a higher mean (M=3.46, SD=.82) and male has a lower mean (M=3.42, SD=.84). Results also show a closeness in the means between the males and females on trust, satisfaction, usefulness and intention to continue using e-commerce showing there isn't much difference in how the genders view e-commerce. On perceived security there is a statistically significant difference between genders (p < 0.05). There is no statistically significant difference between males and females on the rest of the dimensions (p > 0.05).

## Participants' View of E-Commerce Based on Age

Independent sample t test that was conducted on results from the statistical analysis in order to get a better understanding of the differences between participants' view of e-commerce during covid-19 based on the age group variable. Table 6 shows result from the independent sample t test.

### Table 8

Dimension	Age	N	Mean	SD	Mean Difference	t	р
Perceived	>=41	79	3.09	.64	.21	2.27	.02
Security	< 41	340	2.87	.77			
Trust	>= 41	79	3.10	.46	03	47	.64
	< 41	340	3.13	.72			
Satisfaction	>= 41	79	3.08	.66	24	-2.76	.01
	< 41	340	3.33	.72			
Usefulness	>= 41	79	3.17	.59	33	-4.10	<.001
	< 41	340	3.50	.86			
Intention	>= 41	79	3.10	.62	35	-4.31	<.001
	< 41	340	3.45	.75			

The Difference between Participants' Views of E-Commerce during the Covid-19 Pandemic Based on Age

Results from the independent sample t test show that in the highest recorded mean from usefulness, participants aged less than 41 (<41) have the highest mean (M=3.50, SD=.86) and participants aged 41 and above have a lower mean (M=3.17, SD=.59). Results show that there is a statistically significant difference on usefulness of e-commerce between the two age groups (p<0.05). There is also a statistically significant difference between age groups on perceived security, satisfaction and intention to continue the use of e-commerce (p<0.05). Trust dimension, shows a closeness in the means between the participants aged 41 and above (M=3.10, SD=.46) and participants below the age of 41(M=3.13, SD=.72). There is no statistically significant difference in trust between these two age groups of participants (p>0.05). Bilgihan (2016) study found that young consumers below age of 41 value trust more than older consumers and only purchase from websites they trust.

#### **CHAPTER V**

#### **Conclusion and Recommendations**

This chapter includes the conclusion and recommendations of the study.

## Conclusion

E-commerce has become widely popular and has been trending in the past decade as technology has continued to advance and more and more people now have easier access to the internet. Literature shows that Covid-19 pandemic thus far has accelerated the growth of e-commerce beyond predicted levels as Covid-19 protocols (i.e. stay at home and social distancing) have left customers unable to carry out different transactions in person as they would have normally done before the Covid-19 pandemic. Therefore, using survey method, this study has investigated the customers' view of e-commerce during the Covid-19 pandemic.

Results from the study found that majority of the participants (29.4%) spend 4 to 7 hours on the internet daily. 27% of the participants indicated they use the internet for 12+ hours daily.

When comparing the number of online purchases made per month before and since Covid-19, 25.3% indicated they had never used e-commerce before Covid-19 and since covid-19, this number decreases with 15% participants indicating they have never used e-commerce. Before Covid-19, majority of the participants (43.5%) indicated that they only made purchases online 1-3 times and since Covid-19 this number of participants decreases to 37%. An increase is seen from participants who made purchases 4-6 times before Covid-19 (14.6%) and since Covid-19 (23.4%). This is the same case for participants who made purchases online 7-9 times, an increase is seen from 7.9% participants before Covid-19 and 13.1% since Covid-19. An increase is also seen in participants who made online purchases 10+ times before Covid-19 (8.8%) and since Covid-19 (11.5%). Overall this shows an increase in the number of online purchases made before Covid-19 and since Covid-19.

Results show that the most used service before and since Covid-19 is online banking. A significant increase is seen in the purchase of food and groceries from before Covid-19 (24.1%) to since Covid-19 (43.7%) pandemic. Even though it is not on the top purchased product, health product has the second most significant increase from 13.4% before Covid-19 to 23.6% since Covid-19. A decrease is seen in the travel service from before Covid-19 (18.6%) to since Covid-19 (13.8%).

The most preferred device to use when shopping online according to results is mobile phone (75%) followed by desktop or laptop (45%) and lastly a tablet (21%).

When it comes to preferred shopping method, 35.6% of participants indicated they used only physical store before Covid-19. This number decreases to 16% of participants who have used only physical store since Covid-19. Accordingly, an increase in the use of e-commerce is seen when comparing participants who used e-commerce only before Covid-19 (13.8%) to participants who have used e-commerce only since Covid-19 (28.2%). 50.6% of participants have used both physical stores and e-commerce before Covid-19, and 55.8% of participants have used both physical stores and e-commerce since Covid-19.

The most used platform by participants is social media on social marketplaces like Facebook and Instagram. The second most used shown by the results is Amazon, followed by AliExpress in third place and E-bay as the fourth most used e-commerce platform.

Results show that participants sometimes feel insecure when providing their sensitive information on e-commerce websites. In relation to their trust in e-commerce, majority of the participants indicated that they sometimes trust e-commerce. Majority of the participants also indicated that they were sometimes satisfied with the use of e-commerce. Higher mean scores were seen in the useful dimension and results showed that participants have often found e-commerce to be useful during Covid-19 and results from the study also show that participants intend to continue using e-commerce.

When assessing difference between participants' view of e-commerce during Covid-19 based on gender, study found that there is a statistically significant difference between genders on perceived security. No statistically significant differences were found between gender on trust, satisfaction, usefulness and intention to continue using. Results also showed that there are statistically significant differences between age groups of participants on dimensions of perceived security, satisfaction, usefulness and intention to continue using. There is no statistically significant difference between age groups of participants on trust.

### Recommendations

The study recommends the following for future research:

- Because the Covid-19 pandemic is still on going, the study's results are susceptible to change. Therefore future studies can conduct research post-Covid-19 to get a complete picture of the effect the pandemic had on consumers' behaviour.
- Future research can use correlation method to investigate the relationships between dimensions to better understand what influences consumers' views of e-commerce.
- More dependable variables can be added to the model like loyalty for a better understanding on customers' view of e-commerce.
- The study mainly focuses on e-commerce however, the use of mobile commerce and social commerce is vastly rising as access to mobile phones and access to high speed internet has become easier in many countries, therefore mobile commerce would be an informative and interesting topic for future researchers to explore.
- Further research can explore social commerce as results showed that majority of participants use social marketplaces for their online purchases, and given the trend of social media, the research would provide significant literature.
- Future studies can also focus on differences in how consumers have viewed ecommerce during Covid-19 based other demographics like nationalities and occupation.

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## **APPENDICES**

# Appendix A Questionnaire

This study is to analyse customer's view of e-commerce during the Covid-19 pandemic. Participants of the study are to be of the age 16 and above. Answering this questionnaire is voluntary and anonymous. All collected data will be used for academic purposes ONLY.

## SHYLET TINOTENDA GANYAUPFU

## Assoc. Prof. Dr. DAMLA KARAGÖZLÜ

Email: 20193995@std.neu.edu.tr

## Section 1: Demographic information

- 1. Gender
  - E Female
  - 🗌 Male
  - I would prefer not to comment
- 2. Age: \_\_\_\_\_
- 3. Occupation
  - Student
  - Employed
  - □ Self-employed
  - Unemployed
  - Military
  - Unable to work
  - Retired
  - Other \_\_\_\_\_
- 4. Nationality

- American
- 🔲 British
- Egyptian
- 🔲 German
- Greek
- 🔲 Iraqi
- 🔲 Iranian
- 🗌 Kenyan
- Nigerian
- Pakistan
- Polish
- South African
- Turkish Cypriot
- Greek Cypriot
- Turkish
- Zimbabwean
- Other \_\_\_\_\_

## **Section 2: Internet Usage**

- 5. How often do you use the internet per day?
  - 1-3 hours
  - □ 4-7 hours
  - 8-11 hours
  - $\Box$  12+ hours
- 6. Before Covid 19, how often did you make a purchase online in a month?
  - Never
  - 1-3 times
  - □ 4-7 times
  - 7-10 times

 $\Box$  10+ times

- 7. Since Covid 19, how often do you make a purchase online in a month?
  - Never
  - 1-3 times
  - 4-7 times
  - 7-10 times
  - $\Box$  10+ times
- 8. Before Covid 19, which products and services did you purchase online?
  - □ Food/Groceries
  - Health
  - Beauty
  - Electronics
  - Leisure/Entertainment
  - Travel
  - Fashion
  - Online Banking
  - Other \_\_\_\_\_
- 9. Since Covid 19, which products and services do you purchase online?
  - □ Food/Groceries
  - Health
  - Beauty
  - Electronics
  - Leisure/Entertainment
  - Travel
  - Fashion
  - Online Banking
  - Other \_\_\_\_\_

- 10. Which device do you prefer to use when making purchases online?
  - Desktop/Laptop
  - Mobile Phone
  - Tablet
- 11. Since Covid 19, which platform do you use when purchasing online?
  - Amazon
  - Ali-express
  - E-bay
  - Feed Me
  - 🔲 Hepsiburada
  - Inncy
  - Mr Order
  - Yemek-sepeti
  - Social media (facebook, instagram, snapchat)
  - Other \_\_\_\_\_

12. Before Covid 19, how did you make purchases?

- Physical store
- E-commerce
- Depresent Physical store and E-commerce
- 13. Since covid 19, how do you make your purchases?
  - Physical store
  - E-commerce
  - Physical store and E-commerce

## Section 3: Assessment Information

	Items	Never	Rarely	Sometimes	Often	Always
1.	I feel e-commerce sites are not secure for me to send sensitive information					
2.	I do not feel safe providing sensitive information about myself on e-ecommerce sites					
3.	I am not confident that e-commerce platforms will protect me against any potential risks (e.g., personal information leakage, credit card fraud, etc.) if something goes wrong with my online purchase					
4.	I am sure that e- commerce platforms do not take advantage of me (e.g., personal information leaking, credit card fraud, etc.) as a result of purchasing online.					
5.	Overall, I have found e- commerce not safe to transmit sensitive information					
6.	The performances of e- commerce sites have met my expectations during Covid-19.					
7.	E-commerce has been reliable during Covid 19.					
8.	E-commerce is trustworthy.					

9.	I can count on e-			
	commerce sites to			
	protect my privacy.			
10.	Based on my experience,			
	e-commerce sites are			
	honest websites.			
11	Lam satisfied with the			
11.	shopping experience I			
	have had on e-commerce			
	sites during Covid-19			
	sites during covid 19			
12.	I am not pleased with the			
	experience of using the			
	e-commerce sites during			
	Covid-19			
13.	I am very satisfied with			
	the efficiency and			
	effectiveness of e-			
	commerce sites during			
	Covid-19			
14.	I am satisfied with the			
	services that are			
	provided on the e-			
	commerce sites.			
15.	In overal, i am happy			
	with using e-commerce			
	during Covid-19			
16	E-commerce enables me			
10.	to aquire product			
	information more			
	efficently			
17	E commences holes are			
17.	to make product choices			
	more effectively			
	more effectively			
18.	Using e-commerce saves			
	me time			
19.	Overall, I find using e-			
	commerce useful in my			
	shopping experience			
20	I will keep using e-			
20.	commerce			

21.	I will speak positively about e-commerce to people around me			
22.	I do not connect to e- commerce sites if I am not buying anything from them			
23.	I am planning to buy products from e- commerce sites if I find them interesting			

Thank you for your contribution and time.

## Appendix B

## **Ethical Approval Letter**



## **BİLİMSEL ARAŞTIRMALAR ETİK KURULU**

25.12.2020

Dear Shylet Tinotenda Ganyaupfu

Your application titled "Customer's View of E-Commerce During Covid-19 Pandemic" with the application number YDÜ/FB/2020/107 has been evaluated by the Scientific Research Ethics Committee and granted approval. You can start your research on the condition that you will abide by the information provided in your application form.

Assoc. Prof. Dr. Direnç Kanol

Rapporteur of theScientificResearchEthicsCommittee

Direnc Kanol

**Note:** If you need to provide an official letter to an institution with the signature of the Head of NEU Scientific Research Ethics Committee, please apply to the secretariat of the ethics committee by showing this document.

# Appendix C

# **Turnitin Similarity Report**

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3	Abdelsalam H. Busalim, Fahad Ghabban, Ab Razak Che Hussin. "Customer engagement behaviour on social commerce platforms: An empirical study", Technology in Society, 2021 Publication			
4	www.ncbi.nlm.nih.gov Internet Source			<1
5	Submitted to Universiti Malaysia Perlis Student Paper			<sup>s</sup> <1
6	core.ac.uk Internet Source			<1
7	Leonardo Salvatore Alaimo, Mariantonietta Fiore, Antonino Galati. "How the Covid-19 Pandemic Is Changing Online Food Shopping Human Behaviour in Italy", Sustainability, 2020			nietta < <b>1</b> d-19