The Factors Affecting Consumers' Online Shopping Behavior during the Covid-19 Pandemic: The Malaysia Perspective

By

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DECLARATION

The author hereby declares that this project paper is the original study undertaken by him/her unless stated otherwise. Due acknowledgement has been given to references quoted in the bibliography. The views and analyses in this study are that of author's, based on the citations and references made; and this does not constitute an invitation to use this study as a technical tool for management purpose.

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The purpose of this study was to examine the factors that given effects towards consumers' online shopping behavior in Malaysia during the coronavirus disease (COVID-19) pandemic. The virus which has in this country since March 2020 after the outbreak of coronavirus disease (COVID-19) that was firstly reported in Wuhan, China, on 31 December 2019 (WHO, 2019). As the local Movement Control Order (MCO) restrictions are still implements in this country, the online survey via Google form method has been used to conduct this study from 75 online respondents through the online media social platforms. The analysis of proven drivers of online shopping behavior is of great significance during the COVID-19 pandemic, as the needs of businesses and enterprises to anticipate consumer behavior throughout this worldwide crisis in order to keep up a competitive edge. The evaluation criteria was based on which factors that users make decisions when they purchase online. With the spread of the disease, online shopping become the best alternative for people to meet or to satisfy their various level of needs. The effect of product, price, time, payment, security, and administrative as well as psychological factors on consumers' online shopping behavior during the COVID-19 pandemic have been measured through this study. An online survey through a set of structured questionnaire with five-point Likert scales has been conducted to collect appropriate data on July 2021 by

using of Google online survey form method from 81 number of Malaysian online consumers as sample or respondents for this study by using a non-probability sampling method. After the pre-analysis data screening, a total of 75 responses were available for further analyses. Data collected were analyzed using SPSS 23.0 software which were the analyses of descriptive statistics, reliability analysis, and also multiple regression. Results exhibited that all factors except Pricing and Psychological factors had a momentous and positive association with consumers' internet shopping behavior during the COVID-19 pandemic in Malaysia. It has implications for e-marketing practicing firms regarding the real strategy of online shopping for the local consumers during the coronavirus disease (COVID-19) pandemic in Malaysia.

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

The pandemic of coronavirus (COVID – 19) has significantly intensely altered both of the consumers behaving and businesses acting according to (Donthu and Gustafsson, 2020; Pantano et al., 2020). While Laato et al. (2020) emphasize that the government had arranged and set up lockdown by closing the operations of schools, some shops or businesses, restaurants, and public services, which this issue may have spread worries and fears of what will come about in future. Due to this statement it is also likely to consider that consumers will alter their shopping habits and behaviours in the long run.

For instance, Sheth (2020) has make statement in his study that there are four foremost contexts which could be governed or disrupted the consumer habits. They are in context of social (e.g., changes in the workplace and in interaction with friends and neighbours), the new technology application (comprising of online shopping and delivery), the impact of consumption habits due to new rules and procedures (the COVID-19 pandemic regulations), and less predictable context (the global COVID-19 pandemic development).

Kirk and Rifkin (2020) have mentioned in their study that history indicates that a crisis period be able to and is often perceived as an impetus for momentous changes and transformations in society as well as recommend paying attention to consumer behaviours in every of these three phases which are reacting, coping, do-it-yourself behaviours, and then also longer-term adapting.

Based on statement by (OECD, 2020), the coronavirus (COVID-19) pandemic crisis has accelerating the growth of E-commerce towards new trades or businesses, consumers and categories of products, possibly encompassing of E-commerce dealings and transactions long-term shift from luxury goods and services to daily necessities. It has been spread out worldwide tremendously continues to have a significant influence on E-commerce and online consumer behavior around the world including in this country. As millions of people stayed home since early of 2020 after the first case was detected in Wuhan, China on December 2019 based on statement by (WHO, 2019), to contain or stop the spread of the virus, digital channels have turn out to be the most popular alternative to crowded brick and mortar stores as well as in-person shopping. According to Statista.com (2020) statement, in June 2020, the global retail of E-commerce traffic stood at a 22 billion records of monthly visits, with the request or demand being extraordinarily high for daily items for example groceries, clothing, but also retail technical items. This indicates by what means of online or internet usage, buying or shopping habits, and the overall imminent of E-commerce and the global retail industry will appear in 2021 and beyond will mostly be subject to the further progression of COVID-19.

Based on Svajdova, L. (2021) statement, the COVID-19 has altered the world of retail and the customer. Based on the comparison and assessment with the preceding period, there was an intensification in average expenditure and a reduction in the frequency of purchases. Consumer confidence has dropped; people are concerned about the future. Retailers have invested or spent billions in anti-coronary measures and E-commerce is breaking records. The COVID-19 pandemic has changed consumers' shopping behaviour in addition to the pandemic itself, there were also impacted based on economic, political, and legislative factors. The routine of running households, the shopping basket

has changed, the motives for purchasing and the availability and obtainability of goods and services have also changed.

According to Donthu and Gustafsson, 2020; Pantano et al., (2020), this turbulent condition has enormously impacts on the daily consumers´ life. The pandemic of COVID – 19 has significantly dramatically changed both the businesses acting and consumers behaving. While Sheth (2020) claims that there are four major contexts which govern or disrupt consumer habits. They are social context (e.g., changes in the workplace and in interaction with neighbours and friends), the implementation of new technology (including online shopping and delivery), the impact of consumption habits due to new rules (the COVID-19 pandemic regulations), and less predictable context (the development of the global COVID-19 pandemic).

Svajdova, L. (2021) mentioned in his study that the transformation in consumers' behaviour identified in this article was the COVID-19 pandemic. Which from the point of view of theoretical background we can consider as an external factor belonging to the group of natural factors, however, complementary factors that influenced consumer behaviour were, according to the author, political and legislative factors, and economic factors, which were signified by restrictions and uncertainty instigated by fears or concerns about the economic future.

Based on the survey conducted by Rakuten Insight (2020), 54 percent of respondents between the aged of 35 to 44 years old stated that they purchased more online during the COVID-19 pandemic in Malaysia as of May 2020. Then again, six percent of the respondents aged 25 to 34 years old stated there was no impact on their online purchases. The same survey shows that Malaysians made more online purchases during the pandemic.

According to the GlobalData's E-commerce Analytics (2020) a leading data and analytics company statement, the common consumer payment space in Malaysia has disrupted due to the COVID-19 pandemic as consumers are gradually switching from offline to online purchases. The closure of physical stores due to lockdown and social distancing measures led consumers to ramp up online shopping, which in turn accelerated the E-commerce market growth in Malaysia.

Based on Figure 1 by GlobalData's E-commerce Analytics (2020) data statement, The Malaysia's E-commerce market is projected to register 24.7% growth in year 2020. The market is anticipated to reach at MYR51.6bn (US$12.6bn) by year 2024, rising at a compound annual growth rate (CAGR) of 14.3% between the year 2020 and year 2024. In June 2020, the Malaysia government had launched a three-month campaign with a budget of MYR140m (US$34.2m) to drive E-commerce adoption and implementation among small merchants and help broaden their reach across the Malaysia country.

.Figure 1 (Source: GlobalData, 2020)

In addition to the GlobalData's E-commerce Analytics (2020) statement which also concludes that the Malaysian country of E-commerce market has been recording growth throughout the last few years, which has been further augmented by the COVID-19 pandemic. This, combined with the growing consumers' preference for online shopping, the availability and the convenient of customized online payment alternatives as well as through the government support, and it will further drive the Malaysia E-commerce market.

According to (Paynter and Lim, 2001) research statement, the prospective for Internet or shopping within the local environment in Malaysia country is on the positive growth. Based on the Datareportal (2019) statement as per Figure 2 adopted from the portal, more than 26 million total number of Malaysians use the internet today, and data from Global Web Index (2020) shows that 80 percent of users between the ages of 16 and 64 are already conducted shopping online.

Figure 2 (Source: Datareportal.com, 2019 on E-commerce in Malaysia)

According to the Official Website of the International Trade Administration (2020) which published on 19 August 2020, the Malaysia E-commerce industry is emergent swiftly and becoming a competitive industry, especially with the current global pandemic fueled by the increase of smartphone technology penetration in the country. Malaysia is currently an attractive market for E-commerce in Southeast Asia due to its dynamic economy and developed infrastructure for digital technologies. In the year 2020, 80% of the Malaysia population are active internet users (26.7 million) and has 83% of mobile phone penetration rate. In addition to the statement, as of January 2020, there are about 26 million social media users and 40.7 million mobile connections in this country. The E-commerce revenue in Malaysia was projected to reach a total of US$4,179m in 2020, and forecast to grow at an annual growth rate of 17.8% (CAGR 2020-2024), resulting in a projected market volume of US$8,059m by year 2024. While based on the Statista report through its website, the market's largest segment is Fashion, with a projected market volume of US$1,206m in the year 2020.

While the Malaysia Digital Free Trade Zone (2020) is an initiative by the Malaysian Government focused on the development of an ecosystem and a catalyst to the booming digital economy and E-commerce activities in Malaysia. Spearheaded by Malaysia Digital Economy Corporation (MDEC), the Malaysia Digital Free Trade Zone (DFTZ) was examined and refocused to serve two overarching objectives which were through the Creation of an E-Fulfillment hub which are the development of KLIA Aeropolis into a logistical centre to establish Malaysia into a regional E-commerce fulfillment hub as well as the row Malaysian SMEs: The DFTZ is seen as an approach to drive export of Malaysia SMEs via E-commerce.

In the Yogesh K. Dwivedi et.al (2020) research articles, based on Statista (2020) data statement, internet, mobile apps, social media, and

other related digital communications technologies have turn out to be part of normal daily life for billions of societies and people around the world. According to its recent data statistics for January 2020, 4.54 billion people are active internet users, covering 59 % of the global population. The internet usage is no longer recognized as a normal medium that facilitates and enables its users for the socializing or connecting purposes in the virtual sphere but also as one of the most significant media in this contemporary era to conduct business activities virtually or via online. Online shopping through the internet technology is a technique of life shopping for the local Malaysian consumers these days. From the traditional brick and mortar shopping visits, this new innovation not only bringing a comprehensive range of products and services to prospective consumers or buyers on the consumers' perspective or outlook, but also offering wide of business activities and enormous markets in various aspects of the business and life. For the reason that of many advantages and disadvantages, more people currently say that they have a preference for online shopping than conventional shopping as mentioned by Singh & Kashyap (2007).

1.2 Problem Statement

E-commerce is defined as the "sale and purchase of products and services over the Internet" (Keeney, 1999, p. 533). E-commerce is still considered a new and largely unexplored retail channel (Zhang, Prybutok, & Strutton, 2007). Online shopping through the E-commerce are often become the second choice after conventional purchases as normal way of life activity. However, the history recorded that the world has been hit by the coronavirus (COVID-19) disease since December 2019 which started in Wuhan, China. The COVID-19 has been spread out rapidly and devastatingly around the world and infecting very large numbers of

humans as its victims. Due to the situation, the World Health Organization (WHO) has declared the outbreak a Public Health Emergency of International Concern on 30 January 2020, and a pandemic on 11 March 2020.

World Health Organization (WHO) Director-General, Dr. Tedros (WHO, 2020), in his media briefing previously on 23 April 23 2020, had mentioned cautioned that people still have a long way to go and this virus will be with the community for a long time. In addition, he also made statement that the world is unable to return back to the way things were as usual as before and there must be a “new normal” life which a world that is healthier, safer and better prepared (WHO, 2020). Gradually, the COVID-19 pandemic which hits most all the countries over the world is not only a critical health crisis but it also hugely invading the societies as well as the economies sectors in different nature and situations.

In Malaysia, the pandemic was firstly detected on 25 January 2020. (WHO, 2020). Reported cases remained relatively low and largely confined to imported cases, until localized clusters began to emerge in early March 2020. To stem the number of new cases, the government imposed the first Movement Control Order (MCO) started 18 March 2020, a soft cordon sanitaire or partial lockdown that went into effect on 18 March 2020 to reduce social mixing (Ministry of Health Malaysia, 2020). This is followed by a stricter version called the enhanced MCO, an adaptive policy implemented indefinitely since 27 March 2020 to contain large epidemic clusters. (Ministry of Health Malaysia, 2020). Following the decline of cases, MCO was subsequently relaxed and replaced by Conditional Movement Control Order (CMCO) on 04 May 2020, and further relaxed under the Recovery Movement Control Order (RMCO) on 10 June 2020. Recently, the country again implementing another session of Movement Control Order (MCO) 3.0 due to the up rises of cases in

order to slow the rapid spread of the virus. (Ministry of Health Malaysia, 2020).

The restrictions set-up by the authorities due to the pandemic ranged from bans on large events and the closure of schools and universities to a temporary shutdown of the economy (OCHA, 2020). In Malaysia, the implementation of restriction by the local governments has majorly broken down the global and local supply chain as retail stores and services which run under the non-essential businesses had to close their operations. Based on the Ministry of Health Malaysia (2020), the pursuant to the Prevention and Control of Infectious Diseases Act 1988, during the first movement control order, the Minister made and gazette the Prevention And Control Of Infectious Diseases (Measures Within The Infected Local Areas) Regulations 2020(PU(A) 91/2020), whereby in that Regulations it was clear that that companies or businesses not providing essential services, or those that have obtained exemptions, that continued to operate was in breach of the law.

The COVID-19 pandemic has resulted in Malaysia taking necessary drastic actions to get people to stay at home and practice social distancing. It cause to the closure of major retail stores and certain consumers' business activities, online shopping has become the only means for consumers to satisfy their consumption needs. According to the Organisation for Economic Co-operation and Development (OECD, 2020) the COVID-19 crisis accelerated an expansion of E-commerce towards new firms, customers and types of products. It has provided customers with access to a significant variety of products from the convenience and safety of their homes, and has enabled firms to continue operation in spite of contact restrictions and other confinement measures. Despite persistent cross-country differences, the COVID-19 crisis has enhanced dynamism in the E-commerce landscape across countries and has expanded the scope of E-commerce, including through new firms, consumer segments

(e.g. elderly) and products (e.g. groceries). Meanwhile, E-commerce transactions in many countries have partly shifted from luxury goods and services towards everyday necessities, relevant to a large number of individuals (OECD, 2020).

As mentioned by Brian Wong (2020) the UOW Malaysia KDU Head of Business School, the E-commerce has been predominant during the pandemic. As the MCO cease most of physical businesses, consumers' online purchasing behavior including through websites, mobile applications and social media has been further revolutionised. While, according to Statista.com Website (2021) to a survey conducted by Rakuten Insight, 54 percent of respondents aged 35 to 44 stated they purchased more online during the COVID-19 pandemic in Malaysia as of May 2020. On the other hand, six percent of the respondents aged 25 to 34 years old stated there was no impact on their online purchases. The same survey shows that Malaysians made more online purchases during the pandemic.

Based on (Childers & Offstein, 2007; Collier & Bienstock, 2006) statement, while retailers from the traditional store have put so much effort into building, improving, and promoting their new online stores not only to best meet the current consumers' needs but also to survive their business activities. A traditional store is defined as a physical brick-and-mortar store offering products or services that can be physically touched or observed before the purchase.

Julia Koch et.al (2020) mentioned that some small retailers which did not manage online stores or the E-commerce before the shutdown have developed temporary solutions to sell their products online, e.g., by posting products on social media sites and by offering product pick-up or delivery services. Others have offered discounts for their online channels and started promotion campaigns on social media. A major online platform

or companies acquired a large number of new partners. Due to increasing demand, they also invested in new technical solutions that improve platform performance and enable partners to better manage their business on the platform.

According to UOW KDU Malaysia (2020), the surge in purchases of online groceries shows that consumers' behaviour has changed as physical shopping can be a hassle due to the long queues at supermarkets and precautionary measures taken to prevent the spread of COVID-19. "With the restrictive conditions on movement, it is understandable that food delivery has been the top item purchased online during the MCO period," he added. The other top items purchased during the survey period include electrical goods, electronics, fashion, health and beauty items as well as home and lifestyle products. In addition, 76% of the respondents said they were willing to pay a 5% premium on online purchases for three key reasons; convenience, value and benefits. Shopee was found to be the top platform for online purchases during the MCO, with Grab Food coming in second and Lazada a close third. When it came to purchases on social media platforms, Facebook and Instagram were the kings.

Based on statement in Digital News Asia (2020), based on the statement by the Commerce.Asia founder and executive chairman Ganesh Kumar Bangah which said that E-commerce remains one of the few industries which continued to thrive during the MCO, predicting a permanent change in consumer behaviour as many are expected to continue purchasing through digital marketplaces even after the MCO is lifted. Aiming to empower SMEs with the technology, partnerships and business models that will help them generate new revenue and profit from E-commerce, Commerce Asia has a database of over 8 million SMEs in 7 countries in the ASEAN region. Stating that online shopping is now the "new normal" as the COVID-19 outbreak has resulted in E-commerce

businesses booming globally, Ganesh noted that the MCO has led Malaysian consumers accelerating its shift towards online platforms. “We are seeing significant growth in our merchants’ sales across various product categories. This change in buying behaviour shows that Malaysians are adapting to the new living situations.

As stated in the UOW KDU Malaysia website (2020), even without COVID-19, Malaysia’s internet economy rose at a steady 21% annualised rate despite economic headwinds, with the E-commerce industry a particularly strong driver of this growth. E-commerce has tripled in size since 2015 exceeding US$3 billion in market value last year, thanks to a relatively high internet penetration rate according to last year’s edition of the e-Conomy Southeast Asia report released by Internet giants Google, Singaporean sovereign wealth fund Temasek and global consultancy firm Bain & Company. While these numbers are still lower than other countries in the ASEAN region.

Brian Wong (2020), the UOW KDU Malaysia Head of Business School mentioned that the rise of online purchases during the MCO would further spur the E-commerce industry as the country comes to terms with a “new normal” of wearing face masks, carrying out social distancing and ensuring good hygiene whenever they leave their homes. He noted that online purchase post-MCO remains essential, particularly among wary consumers. Thus, it is no longer a choice for businesses to adopt to online platforms but it is compulsory action. Thus, in acceptance to (Koch, Julia & Frommeyer, Britta & Schewe, Gerhard (2020) research statement, the investigation and analysis of established drivers of online purchase behavior is of great relevance during the COVID-19 pandemic, as businesses must anticipate consumer behavior during this global crisis to maintain a competitive edge.

1.3 Research Objectives

As issued by Harian Metro online (2013), according to reports issued by online payment agency, PayPal in collaboration with Nielsen Company, researchers revealed that in 2010 alone about 1.1 million Malaysians were willing to spend with value an average of RM2,461 for online product purchases (Harian Metro, 2013). As issued by Ministry of Finance Malaysia (MOF), based on the Malaysia Economy Report of year 2013/2014 stated that the number of internet users in Malaysia is expected to increase to 25 million people by 2015 compared to 18 million people in 2012. Statistics also show more many internet users in Malaysia are buyers as opposed to sellers by market size online transactions in Malaysia are expected to reach RM5 billion by 2014 compared to RM1.8 billion in 2010. According to the report, Malaysia is among the three core countries in Asia for average online spending over the past 12 months. While based on Statista.com (2020) website as per Figure 3, in the year 2020, 28.4 million people were accessing the internet in Malaysia. This figure is projected to grow to over 30 million by year 2025.

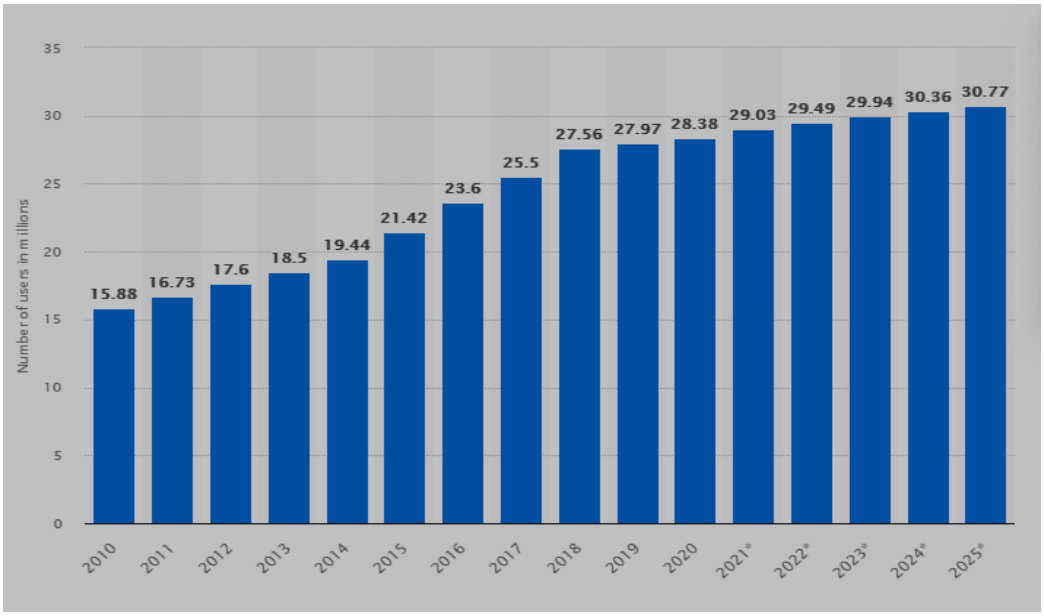

Figure 3 (Source: Statista.com, 2020)

The COVID-19 pandemic that currently hit the Malaysia country giving more impacts in different factors. Consequently, based on present developments and issue, this study aims to examine and study practices of online purchasing and the factors that influence them which were the product, price, time saving, payment, security, administrative as well as psychological factors that affecting consumers' online shopping behavior during the coronavirus disease (COVID-19) pandemic in Malaysia as well as to explore the impact of the pandemic on consumers' online shopping behavior in this country. Nevertheless, there is very inadequate information and knowledge about online consumers' behavior due to a complex socio-technical occurrence and implicates with too many factors. It might be one of the most significant issues of E-commerce and marketing field. The model was assessed based on the data collected from 75 participants through a survey questionnaire by using Google online survey form. This study also will preliminary help the local small and medium business retailers' in their effort in shifting their traditional brick

and mortar way of traditional business to the era of internet technology by the understanding the factors particularly for this country.

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1.4 Research Questions

Research questions has been established to attain better understanding, to investigate, to gather useful and meaningful data as well to collect right information in order to meet the study objectives. Based on finding and data analysis gained, the subjects that needs to be resolved and responded were:

- To know how perceived of product factor has effect on consumers' online shopping behavior during COVID-19 pandemic
- To know how perceived of price factor has effect impact on consumers' online shopping behavior during COVID-19 pandemic
- To know how perceived of time saving factor has effect on consumers' online shopping behavior during COVID-19 pandemic
- To know how perceived of payment factor has effect on consumers' online shopping behavior during COVID-19 pandemic
- To know how perceived of security factor has effect on consumers' online shopping behavior during COVID-19 pandemic
- To know how perceived of administrative factor has effect on consumers' online shopping behavior during COVID-19 pandemic
- To know how perceived of psychology factor has effect on consumers' online shopping behavior during COVID-19 pandemic

Through this study, the factors that affecting consumers' online shopping behavior during the coronavirus disease (COVID-19) pandemic in Selangor, Malaysia have been examined.

1.5 Significance of the Study

The significance of this study are classified into:

Marketers and Retailers

The study of consumers' online shopping behavior supports businesses and organizations develop or improve their new and current strategies of marketing by understanding issues such as how the psychology of how consumers feel, expect, think, consider, reason, or choose between various alternatives (e.g. products and brands); the psychology of how the consumers influenced by their environment (e.g phenomena, culture, signs, media); the consumers' behavior while shopping online; consumer knowledge limitation or information processing capabilities influence decisions and marketing consequences; how motivation of consumer and decision strategies vary between products that differ in their level of importance or interest that they necessitate for the consumer; and in what way marketers can adapt and expand their marketing campaigns and strategies to be more effectually influence the consumer. The study also can be used as a source of reference for marketers and online retailers to improve the online purchasing system effectiveness to meet the consumers' demands mainly when the country is hit by problems or difficult situations like this COVID-19 pandemic. Furthermore, marketers can improve issues or problems that arise from the study. Online retailers can take advantage of the E-commerce rapid growth by improving consumer acceptance and the consumer's intention to engage in E-commerce.

Consumers

The most prominence reason is to be able to give information to users about online purchases. It is easier for users and can entice more users in using the E-commerce, website or other digital technologies for online

purchases. Through the data and analysis results that have been obtained through this study mainly about the online purchases, then the users could be able to understand the impact of this behavior.

Future Researchers

Data and information from the analysis and results of this study can give an outlines and assist for forthcoming researches. It can be used as a reference source to prepare, conduct and come out with a more detailed and quality research or study. Therefore, future researchers will also be able to expand the scope of the study as well as increase the number of other factors that will be included in similar study background in the future.

1.6 Limitations and Delimitations

In the process of implementing this study, researcher was unable to make face-to-face meetings to find for targeted respondents due to pandemic issues as well as movement control order by the government which lifted 10km of travel limit in all states. Thus, the only appropriate way was using online survey. This research study limited participation to 75 sample of participants through the online media socials medium which were Facebook and researcher's personal contacts through Whatapps and Telegram due to limited contacts and budget to spend during this pandemic.

The respondents were required to complete the survey online prepared through Google Form link as the survey instrument and distributed through the above mentioned online media socials medium. Therefore, the results may be geared towards more technical savvy consumers. Some of the participants may have not received the link within the timeframe of the survey period or may have overlooked the survey

invitation message and survey link. Several soft online reminders were sent in order to encourage participation however still difficult to get full cooperation. So the number of sample or respondents for this study is limited.

A delimitation of this study was only involved the active consumers connected to researcher's Facebook and Social applications which were Whatapps and Telegram. Researcher also do not have so much experience in conducting this kind of study as well as the time frame given by the university is very short for this MBA study in addition to pandemic factors that limit researcher's movement in the effort to make effective research. Because of this study conducted during the pandemic, face-to-face survey is restricted due to the movement control orders by the government. This research study also restricted the constructs investigated to certain demographics, product, price, time saving, payment, security, administrative as well as psychological factors on consumers' online shopping behavior during the COVID-19 pandemic.

1.7 The Organization of the Study

There were three (5) chapters presented in this study report which were:

Chapter 1:

This section consist of introduction, the study background, the problem statement, the research objectives, the research questions, the study significance, the study limitation/delimitations and the organization of this study.

Chapter 2:

This section consist of the literature review with its introduction, the theoretical foundation, empirical research, proposed conceptual framework, hypothesis development, and chapter 2 summary.

Chapter 3:

This section consist of the introduction to the research methodology, the research philosophy, research approach, the research design, the study population and sampling procedures, the data collection method, the operationalization and measurement, the independent variables, the dependent variable, the technique for data analysis, the technique for descriptive analysis, the technique for inferential analysis as well as the summary for this chapter.

Chapter 4

This section consists of survey data and analysis which includes analysis techniques, results and discussion where the researcher mention on the survey respondents profiles, and testing of the instruments. Then, the researcher did overall the hypotheses 7 testing, which ended with summary, statements or discussion on the results.

Chapter 5

The researcher recap the major findings of the research, and include the implication and limitation of the study. Then, the researcher finalized with recommendation for future research.

CHAPTER 2

LITERATURE REVIEW

2.1 Theoretical Foundation

The relevant literature review analysis proposed that utmost of the studies are focused on specific constructs and online shopping process of pre- purchasing stage which aiming majorly on the urban areas of Malaysia. In order to incorporate the constructs and to comprehend the consumer from forthcoming market is crucial for the development of online trades or businesses in this country.

The consumer behavior of forecasting and investigating are the area of ever since years. The “Utility Theory” was first proposed by Nicholas Bernoulli, John von Neumann and Oskar Morgenstern (1947) which concentrating the connection between consumer’s anticipation from outcome and their judgment followed by the diffusion of innovation theory by E. M. Rogers in the year 1962. Subsequently after the study for the post purchasing behavior has been conducted in the “Theory of Expectation Confirmation” which by Richard L. Oliver (1977, 1980). While the “Reasoned Action Theory” by Fishbein (1980) observed the correlation between attitudes and upcoming intention or plan to partake in these purchasing behaviors while the “Theory of Planned Behavior” by Icek Ajzen (1985) connected behavior and beliefs. Around the year 1986, the “Technology Acceptance Model” or TAM Model described how users or consumers agree with new and innovative technology with particular theories.

There were numerous broad models of consumer behavior have been suggested and proposed, for example the Nicosia Model (1966) which engrossed on the four (4) stages of consumer purchasing process,

while Howard-Sheth model (1969) suggested that consumer takes rational choice or decision during conducting their purchase and this is repeatable practice or process and it is impacted by a number of internal and external factors. While Belch and Belch (1998) define consumer behaviour as 'the process and activities people engage in when searching for, selecting, purchasing, using, evaluating, and disposing of products and services so as to satisfy their needs and desires'. While in 1978, the model suggested by Engel-Kollat-Blackwell was presented the process of the consumer decision making in four (4) stages and all the four (4) stages have been presented impacted by numerous factors for example individual factors and environmental factors.

Later in the year 2009, the Kotler and Keller model proposed that consumers who goes over several phases while purchasing something and in of every phase or stages, the factors of personal, social, cultural, and psychological give influence to consumer. Likewise online consumer purchasing process is also impacted by numerous factors (Donthu & Gracia ,1999) similar to traditional retailing. It consist of the numerous factors of demographic such as age (Wells & Gubar, 1966; Moskovitch, 1982), gender, (Minton & Schneider,1980, Powell & Ansic,1997; Venkatesh & Morris ,2000; Homburg & Giering, 2001; Slyke et al.,2002; Rodger & Harris ,2003; Cyr & Bonanni, 2005; Yang & Lester, 2005), education (Claxton et al., 1974; Capon & Burke, 1980; Lassar et al.,2005) and wage or income (Li et al., 1999; Swinyard & Smith, 2003) which impact online consumer buying behaviour, while psychological factors such are perception (Elliot & Fowell, 2000; Ranganatham & Ganapathy ,2002; Hu et al., 2009; Lai & Wang, 2012), attitude (Monsuwe et al. ,2004), learning (Bhatnagar & Ghose, 2004; Johnson et al., 2007) also contribute significant impact to online consumer purchasing behavior. In the online trade, consumers can be separated into two (2) groups which were recognized as browser and real purchaser (Lee and Johnson, 2002).

2.2 Previous Studies and Theories Model

The Technological Acceptance Model (TAM), developed by Davis (1989), gives an abstract description to research the technological acceptance of consumers and to explain the usage of information technology. The usage of the TAM model is validated by multiple researchers, including several types of technology acceptance applications in the field of cultural and online shopping acceptance, such as: online shopping acceptance (Kappelman, Koh, Lui & Tucker, 2003), the perceived usefulness of online shopping and the use of online shopping (Lee, 2005), and a cross-cultural examination of online shopping behaviour (Deitz, et al., 2013). Figure 4 illustrate the Theory of Technology Acceptance Model (TAM).

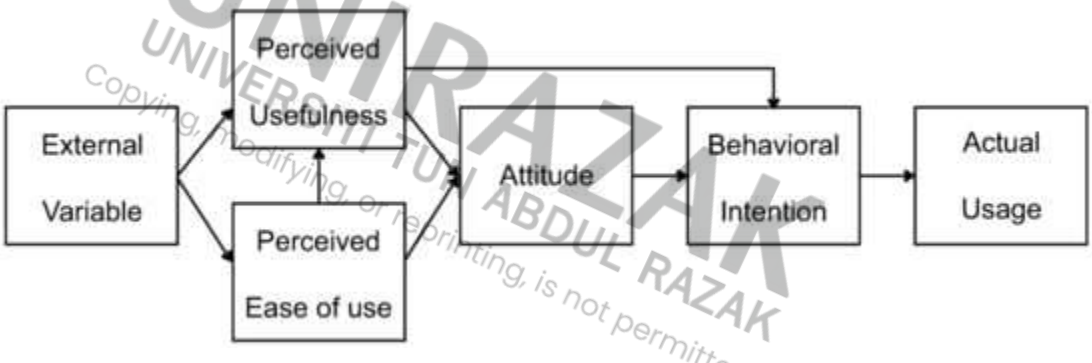

Figure 4 -Theory of Technology Acceptance Model (TAM) by Davis (1989)

The underpinning theory of the framework is adapted from Theory of Planned Behaviour by Icek Ajzen (1985). Theory of Planned Behaviour is widely used in the consumer behaviour studies to predict and describe human behaviour in a specific context (Ajzen, 1991). It is an expansion of the Theory of Reasoned Action by adding the contribution of perceived behavioural control. In the Theory of Planned Behaviour, intention is the main predictor for behaviour and it consists of three

different antecedents which are the attitude toward the behaviour, subjective norms and perceived behavioural control. Figure 4 illustrate the Theory of Planned Behaviour model.

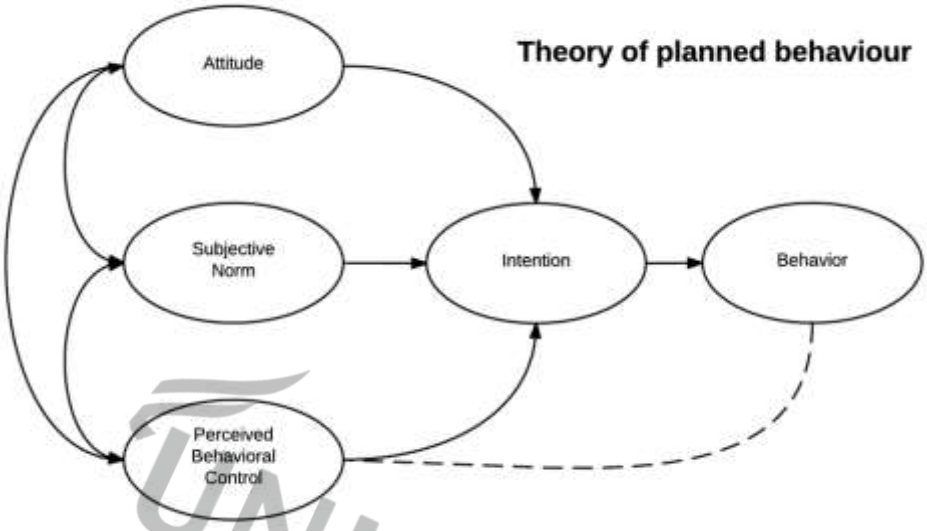

Figure 5 -Theory of Planned Behaviour Model by Icek Ajzen (1985)

In this study, the microeconomic Theory of Consumer Choice has been used in studies involving online consumers as per Figure 6. According to Swiecka et al. (2020), Theory of Consumer Choice means that every consumer has a preference and at the same time faces budget constraints or choice limits to maximize utility or well-being through the use of goods and services. In this regard, respondents who have a preference to buy are required to make rational choices to obtain maximum satisfaction based on their income. For example, when the price of an item sold online is cheaper than another, the demand for the item will increase. Rationally, respondents allocate their limited income to achieve the best utility in online shopping. In the process, the respondents

examines all available options, compares features and prices and then makes a logical decision to buy online.

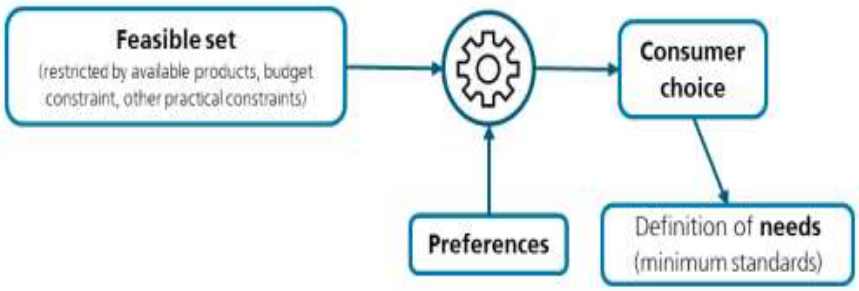

Figure 6 – The derivation of user needs in concept 1 in a Consumer Theory Framework adopted from (Felix C.H. Gottschalk, 2019)

2.3 Empirical Research

In this quantitative research, all the information is gained through the data that obtain from the survey form that given to the respondent to fill in. It is used to quantify opinions, behavior, or other defined variables that we set in the closed ended questionnaires in a structural format. All the research questions and objectives in this research paper can be answered after the data given by the respondent been analyzed based on the method prescribed in this research method.

This study has been directed, analyzed and investigated by the used of methods of quantitative research in order to collect figures and information from the respondents which were through online survey conducted. It was used to put a figure on views, estimations, behaviors, opinions, or other demarcated variables that set in the questionnaires in structured lay-out format.

Data collected or gathered from the above method has been further analyzed. The empirical evidence can also be analyzed either via quantitatively. By using the above, researcher was be able to response to

the empirical questions which have to be noticeably well-defined and answerable with the findings that researcher was planning to get before. By having the research finding, the issue or the problem for this case study can be resolved realistically based on scientific method rather than only based on assumption which the results will not precise and truthful. Researcher also could be able to find out whether the study hypothesis is supported or not through the significance statements.

2.4 Conceptual Framework

The following conceptual framework for this study in Figure 7 was adopted from previous similar researches conceptual framework designs as well as from analyzing from the theories model mentioned in the previous sections. From the following framework, there were seven (7) Independent Variables (IV), which were Product Factor, Price Factor, Time Factor, Payment Factor, Security Factor, Administrative and Psychological Factor are assumed to have positive impact towards Consumers' Online Shopping Behavior (Dependent Variable).

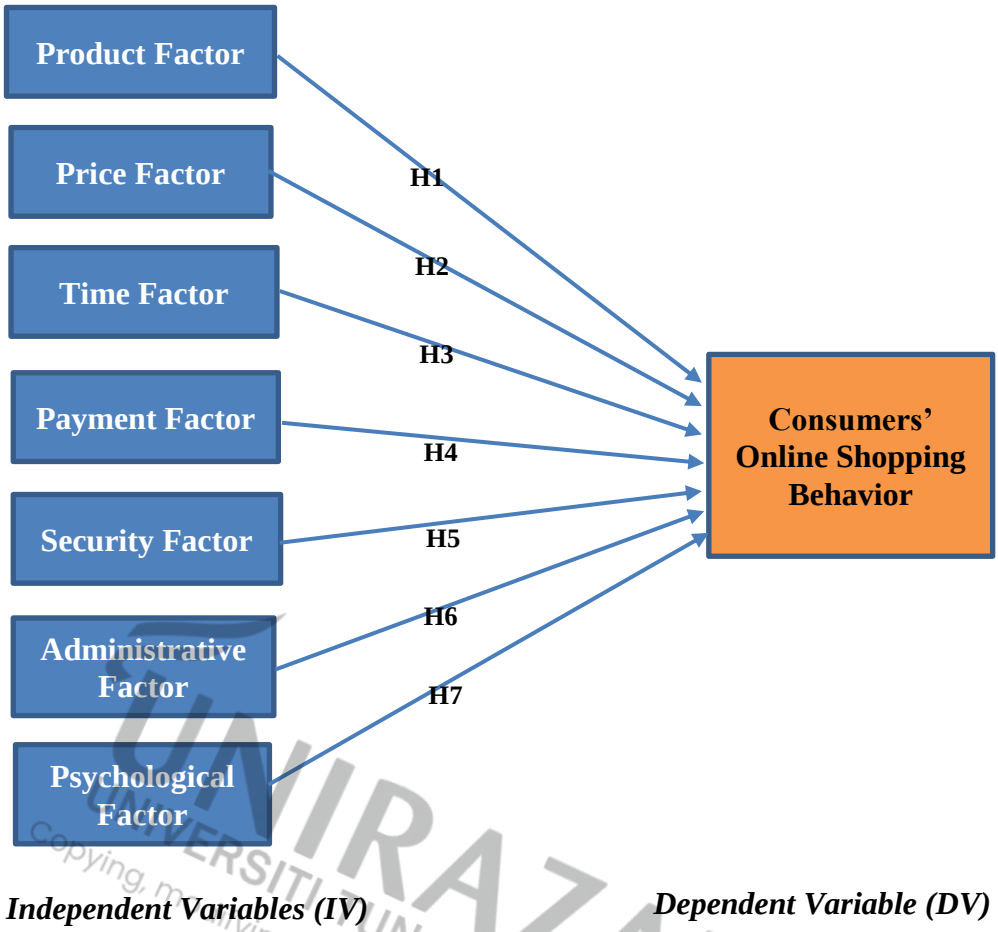

Figure 7: Conceptual Framework
Source: Adopted and modified from Meher Neger and Burhan Uddin (2020)

2.5 Hypothesis Development

2.5.1 Discussion on Research Variables

2.5.1.1 Online Shopping Behavior

Atmospherics concept was first introduced by Kotler. It is defined as the "conscious designing of space to create certain buying

effects, specifically the effort in designing buying environments to produce specific emotional effects in the buyer to enhance purchase probability" (Kotler, 1973). In another word, atmospherics is the setting of the physical store that influences the customer's mood in the purchasing decision. This concept was later applied to the online settings by Eroglu, Machleit, & Davis, (2003). Online store website creates the first impression and represents the company's image. Therefore, organising and maintaining a user-friendly e-shoppers website with adequate web atmospherics is essential for the success of the e-retailer. The web atmospherics should be enhanced aesthetically with proper and good construction to influence e-shopper to purchase online based on Weng (2015) previous research statement.

Based on the data presented in the to the Official Website of the International Trade Administration (2020) which published dated on 19 August 2020, the most popular E-commerce sites that the Malaysian visited in the year 2020 were Mudah.com.my ; Lazada.com.my ; Zalora.com.my ; Lelong.com.my ; eBay.com.my ; Amazon.com.my ; Fave by Groupon ; Taobao.com ; Alibaba.com ; Fashionvalet ; Shopee.com.my ; 11th Street.my ; Gemfive.com ; Q100.my ; Hermo.my ; Carlist.my ; Carousell Malaysia.my .

While as data presented by Statista.com website (2021), for the Malaysia case, Top 10 E-commerce sites in Malaysia as of 2nd quarter 2021, by monthly traffic (in 1,000 clicks) were as following Figure 8. As of the second quarter of 2021, Shopee led the Malaysian E-commerce market as the most clicked E-commerce site in the country, followed by Lazada and PG Mall. With around 54 million clicks, Shopee was the leading online shopping platform in not only Malaysia, but also across Southeast Asia. According to Kasuma, Jati & Kanyan, Agnes & Khairol, Mohd & Sa'ait, Noraini & Panit, Gloria. (2020), among the key factors contributed to site engagement and stick to the online shopping

website is due to quality of traffic, on site merchandising or availability type or category of the products and website user experience. Some of the consumer are stick because they are offer more discount in the next visit and purchase.

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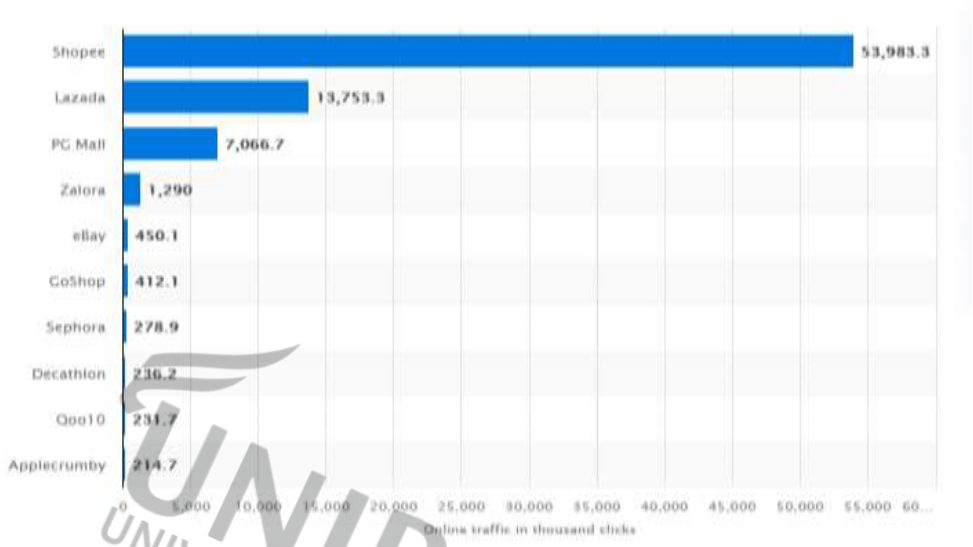


Figure 8: Top 10 E-commerce sites in Malaysia as of 2nd quarter 2021, by monthly traffic (in 1,000 clicks) (Source: Statista.com, 2021)

Online stores ensure consumers' advantages by conveniently providing different types of products. Previously, the transaction was difficult but E-commerce has made it easier than any other time based on the research statement by (Lim & Dubinsky, 2004; Prasad & Aryasri, 2009). While previous researchers Monsuwe, Dallaert, and Ruyter (2004) have compared both offline and online shopping and found that online shopping is easier and more facilitated than offline shopping where online shopping took less time and effort. Besides online shopping permits consumers to access more information related with product and services that help consumers to compare both price and product quality with other producers. Security, appearance, quick loading, sitemap, and validity are the most significant factors of online shopping that influence consumers to

make online purchase according to (Salehi, Abdollahbeigi, Langroudi, & Salehi, 2012).

Generally, customers can be able to get any data and information easily by the internet according to Wang, Ye, Zhang, & Nguyen, (2005). When online shopping, consumers cannot be able to touch and feel the product before purchase but online services provide more information about their products and services, so that customers may judge the product and services when they need (Lim & Dubinsky, 2004). Most online services provide 24/7 customer supports which enable consumers to take necessary information related to product and services at any time and any places which attract consumers to make online purchase stated by (Hermes, 2000; Hofacker, 2001). Wang, Ye, Zhang, and Nguyen (2005) conducted empirical research on online shopping and found that the convenience of the internet put a significant influence on consumers' minds to purchase online. According to Lui, Xiao, Lim, and Tan (2017), the core influential factor for consumers' online purchase behavior is website quality. It works as a first impression on consumers to make online purchase.

While the study in relation to the current pandemic situation, according to Eugene Koh Boon Yau, Nicholas Pang Tze Ping, Wendy Diana Shoesmith, Sandi James, Noor Melissa Nor Hadi and Jiann Lin Loo (2020), the behaviour changes amongst Malaysian's as a response to the COVID-19 pandemic are both novel and expected at the same time. Past literature on previous crises and disasters reported similar themes in behaviour changes, but the choice of behaviour changes are explicitly adapted to the COVID-19 pandemic. On the note of self-preservation, one behaviour that is quite inextricably linked to unusual psychological reactions in COVID-19. People can panic when they observe others buying certain products, even if unrelated, as a mass fear infects

individual to individual and no one wants to be left out of owning one non-essential item that appears to be running out. The panic buying is consistent with the model suggested by (Mawson, 2005) where if the anxiety experienced is not at a severe level and attachment figures are absent, e.g. clear authority directions, the choice of behaviour usually move towards familiarity; which in this scenario, where 'others' think that bulk buying toilet paper is the appropriate behaviour. This choice was most likely driven also by media sources reporting the behaviour.

According to Amit, Kumar & Singh, Amit & Sailo, Malsawmi. (2014), online shopping is a form of E-commerce which permits consumers to directly purchase goods or services from a seller by using the Internet. Other names are: e-shop, e-store, Internet shop, web-store, virtual store and online store. An online shop arouses the physical similarity of buying products as well as services from internet shop and this process of shopping is called business-to-consumer online shopping. Online shopping is the practice in which consumers decide to buy the product through internet.

While according to Li, H., Kuo, C., and Russell, M. G. (1999), in his study found that consumers who are buying from internet stores more frequently are more suitability oriented and less practice concerned. These customers respect suitability throughout shopping as the most significant factor in buying decisions since they have time constrained and do not notice purchasing products without touching or sensitivity.

Based on (Prashar, Sai, & Parsad, 2017), internet has penetrated in people's lives so completely that it has become an important channel for consumers to buy products and commodities Internet Online Shopping, which is abbreviated as online shopping, enables consumers and business owners to combining such commercial activities as buying

and selling, product and services through computer network, thus enhancing consumers' buying intention.

Being a form of non-store retailing, online shopping means that it is impossible for its consumers to actually touch the products to check their quality, hence the higher risks perceived for online shopping. Therefore, as the purchase frequency increases, consumers will build more experiences, which will influence their buying decisions in the future as per research statement by (Mallapragada, Chandukala, & Qing, 2016).

According to Lau, Teck-Chai & Lim, Yet & Yap, C.-S. (2010), the online consumer behaviour is about buying behaviour, i.e., what types of goods and services consumers acquire via the Internet. What do people buy online? According to the list compiled by Battey (2000), the top ten E-commerce categories are airline tickets, hotel reservations, computer hardware, consumer electronics, car rentals, books, apparel, office supplies, software, and food/beverages. Other products and services that consumers buy online include clothing, healthcare products, computer and computer accessories, groceries, music and CDs, sunglasses, videos and movies, flowers, sporting goods, toys, personal care products, jewelry, college textbooks, concerts and plays, investment choices, legal services, news subscription, and insurance (Bhatnagar et al., 2000; Foucault and Scheufele, 2002; Leonard, 2003; MacSweeney, 2000; Vijayasarathy and Jones, 2000).

In addition to the above researches, for those who have experience in online purchase, do they have a higher intention to buy online again than those who have not purchase online before? In studying students' online purchasing behaviour of textbooks, Foucault and Scheufele (2002) found a significant positive link between previous online purchase of any goods and services with the likelihood of buying textbooks online. Similarly, Brown, Pope and Voges (2003) found a

positive relationship between prior online purchase and future online purchase intention. Those who have previous online purchase experience are more likely to have intention to purchase online in the future than those who have no online purchase experience before.

2.5.1.2 Product Factor

According to Alam and Yasin (2010), website design, product variety reliability, and delivery performance are the furthermost influential factors for online shopping in Malaysia where time saved does not influence consumers to make online purchase. While according to Meher Neger and Burhan Uddin (2020), the product can be everything such as good, service, place, people, information, idea, and any organization that search for attention and try to satisfy the consumers' needs, desires, or wants. Good product quality can be determined as a defect- and fault-free product that can be recognized by eight key dimensions, for example product performance, features, reliability, confirmation of product, durability, serviceability, aesthetics and perception of quality (Tjiptono, 2008). As mentioned by (Kotler & Amstrong, 2008), only when a product can be able to fulfill the consumers' needs and wants, the product can be called as a quality product. According to Mashao and Sukdeo (2018), consumers mostly purchase products by looking into the product quality, product features, product performance, and product cost. As mentioned by Pan & Zinkhan (2006), the product quality can be able to form retailers' reputation that impact consumers' decision of purchase. According to Jaminyasa, Pulawan, Martadiani, and Amerta (2017), they found that quality of product has a significant impact on customer purchase decision and satisfaction. While Andreti, Zhafira, Akmal, and Kumar (2013) mentioned that the most of the consumers come to convenience stores and buy a product because of product and service quality that these

stores provided or sold. Similarly, product has an influence on consumers' shopping behavior in Bangladesh (Hossain & Khan, 2018).

2.5.1.3 Price Factor

According to Kotler & Armstrong (2012), price can be articulated as money that is products or services charges or the value amount that has to be paid by consumers for getting, purchasing, or using products or services Generally, all elements of the marketing mix are responsible for expenses but price only accumulates income for the organization. While Satit, Tat, Rasli, Chin, and Sukati (2012) argued in their statement that, between the product, place, price, and promotion elements, price is the only major part that highly influence consumers more during their purchase decision in utmost cases. For an instant, businesses offer a competitive or economical price and give a special offer or price cut for their products and services to attract consumers.

Munusamy and Hoo (2008) mentioned in their study that the pricing strategy has a substantial influence on customer motives and decisions of purchasing. Consumers pay bottomless attention and deliberation on price when they make decision to purchase the product. By considering price, most of consumers make a purchase as mentioned in the study by (Kusumawati, Oswari, Utomo, & Kumar, 2014). According to Andreti, Zhafira, Akmal, and Kumar (2013), the most numbers of consumers make a visit the shop or convenience stores and make a purchase due to the price stores great offer to the consumers and it has surely a great impact on the customers. While according to Grewal and Levy (2007), in retail industry, the pricing of the product gives a vast impact on the consumers. So, the businesses need to make sure price fairness strategy where their product price is acceptable, reasonable, or justifiable. The writer also explains that consumers will purchase those

products which allow valuation to their money and the businesses need to facilitate a good business strategy where the most business concern will be the customer's money value. While according to Hassan and Abu Bakar (2010), they mentioned that reasonable pricing will enable a competitive advantage in the business context. Furthermore, it will generate a satisfaction and loyalty among the potential buyers.

2.5.1.4 Time Factor

Based on the study conducted by Schaupp & Bèlanger (2005), time saving exhibits consumers have need of fewer time to shop in the shopping stores, with fast transaction speed, without standing in a long line at these stores. Consumers can save their time with fast transactions and services. While Morganosky and Cude (2000) found in their study that the core determinations of online grocery shopping are time saving and convenience. Consumers are intended to shop more at the shopping places or stores where less time required. As mentioned by Kloppers (2014), convenience, fast delivery, and time saving are the most essential key elements for online shopping and the other side, branding is not an important factor for online shopping. Furthermore, Ganapathi (2015) found that consumers are influenced more by time saving, security and website design to purchase online.

On the other dimension, Time saving is not one of the motivation factors for consumer to shop online based on study conducted by Corbett (2001) because it take a long time to deliver good and consumer will need to wait to receive the product but, time saving factor can be seen through different dimension. For example, people in east Malaysia can buy a product at west Malaysia without visit the place. They can save their time to travel to the place where they want to buy the products and can save their money on travel and accommodation. While Morganosky and Cude (2000) have

concluded that time saving factor was reported that to be a primary reason among those consumers who have already experienced the online buying.

2.5.1.5 Payment Factor

According to Humphrey, Pulley, & Vesala (1996), E-payment system denotes to an electronic payment system that permits users to transact electrically wherever in the world. Based on Weir, Anderson, & Jack (2006), the E-payment system authorized individuals to pay via online anywhere and anytime for both national & international trade. While The mobile payment system (M-payment system) is a particular kind of E-payment system that authorize mobile users to make transactions internationally by mobile device and communication technology where internet connection is required, based on the study conducted by Dahlberg, Mallat, Ondrus, & Zmijewska (2006). One more common form of electronic payment system is Electronic point of sales (E-POS) that is common for containing several features like user-friendly, multi-operational, multi-uses, etc. It allows users to record transactions for payments evidence for vibrant accounting purposes according to Atarere & Osemwegie-Ero (2014). While based on Adebayo, Osanyinlusi, and Adekeye (2017), the E-payment system plays a significant role in the purchasing behavior of retail outlets consumers as it aids to heighten customer satisfaction by permitting greater global trade facilities and commerce transactions.

2.5.1.6 Security Factor

Based on Trocchia and Janda (2003), security and privacy can be separating into two classifications which is financial and non-financial. In the financial classification, consumer are concerns or worries about transaction safety issue and their details of bank information when

purchase via internet or online due to a lot of fraud case occur through the internet where people loss all their money at the bank while for non-financial category refer to online scam and false or misuse of personal information for their own benefits. Security is one of the utmost crucial internet shopping or E-commerce dimensions. Throughout internet shopping, consumers and trade organizations have to process massive data and information associated to the consumers and their individual information. Therefore, trade organizations have to put emphasis on consumers' information security and protection (Pinto, Santos, & Marques, 2009).

According to Tsiakis (2012), the current internet shopping has to face security issues, like identity theft and fraud. While based on Hossain, Jamil, and Rahman (2018), they found the most influential factors for consumers' online shopping decisions, such as security, personal hobby, payment method, appropriate pricing, privacy, social media, and reference groups. All those factors have put substantial influences on customer online purchasing decisions. Comegys, Hannula, & Váisánen (2009) mentioned that the lack of security or containing less security can roll back to consumers from online shopping. In this case, consumers are worried about the protection of their data and information especially about their credit card and debit card that can be fraud or misuse. While Shergill and Chen (2005) examined that, the key dimensions of internet shopping or E-commerce are: website design, reliability, customer service, and security that affect consumers' internet shopping or purchasing decisions. Based on Ahmed, Hussein, Minakhatun, and Islam (2007) which suggested that to succeed in online transactions, businesses or organizations must maintain security, trust, privacy, and reliability of their online consumers. To assure these dimensions organizations has improved their capabilities and resources.

Based on (Gurung & Raja, 2016; Akroush & Al-Debei, 2015; Kaur & Quareshi, 2015; Weng, 2015), there several studies revealed that trust is one of the major contributors to encourage e-shoppers to shop online Furthermore, trust is the utmost crucial factor in e-retailer and e-shopper's relationship based on Kaur & Quareshi (2015) study statement. Therefore, it is common that e-shoppers decline to purchase online for the reason that of lack of trust towards e-retailers according to (Grabner-Kräuter & Kaluscha, 2003). For example, according to Nielsen Malaysia (2014), 52 percent of Malaysian e-shoppers refused to purchase online using a credit card because they are skeptical in giving out their credit card information. Therefore, certain companies have taken steps by allowing e-shoppers to place online orders but pay off-line in order to stay competitive in the market.

A study from Niranjanamurthy M and Dharmendra (2013), Security is a significant matters and problem for online consumer, and it is one of the most important factors whether the online businesses is success or not. Security is another dominant factor which affect consumer to shop online. Many internet users evade the online shopping because of they are not belief in security that offers by the website because of credit card fraud, privacy factors, non-delivery risk, post purchase service and also hacker that usually create a dummy website which similar to the online shopping website.

According to Kasuma, Jati & Kanyan, Agnes & Khairol, Mohd & Sa'ait, Noraini & Panit, Gloria. (2020), the deficiency of consumer confidence by the nonexistence of security and privacy of the website will turn out to be one of the online shopping disadvantages which as a result will prevent from the online shopping development. The online shopping owner should aware and strengthen their website security of online transaction and

provide consumer with a privacy policy thus improving consumer confidential, satisfaction and purchase intention.

2.5.1.7 Administrative Factor

Based on the News Strait Times (NST) dated 16 March 2020, following the MCO implementation, all Malaysians were instructed primarily to stay indoors. Other restrictions imposed included prohibition of mass gatherings, health screening and quarantine for Malaysians coming from abroad, restriction on foreigners entering the country and closure of all facilities except primary and essential services such as health services, water, electricity, telecommunication and food supply companies. While based on UNESCO (2020) statement, since the onslaught of the COVID-19 pandemic in Malaysia began in late January 2020, the government and businesses have had to improvise to keep the economy afloat. Movement and quarantine restrictions led to a “new normal” for business and consumers through digitization and E-commerce. The Malaysian government has recognized and utilized this rise in E-commerce as a tool of inclusiveness by empowering local micro, small, and medium enterprises (MSMEs). Enabling MSMEs to adopt a digital platform may allow small business to be more resilient to economic change, especially amidst COVID-19, and subsequently reduce wellbeing gaps within the country.

According to Kabango & Asa (2011), the government plays a key role in developing and promoting E-commerce sites in a developing country. The government can maintain the security of online payment and build strong infrastructures of ICT that can simply be reach and reachable to all. Governmental support may be well thought-out as an influential factor for E-commerce in a country. While according to Licker & Molla (2005), the government is committed to promoting E-commerce site. Eid (2011)

research study found that the government of Saudi help out to promote local E-commerce site that was found as an crucial factor for emerging online shopping segment in Saudi Arabia country and individuals have to believe in governmental activities. The government is an external environment that assists in increasing the E-commerce platform and it influences positively consumers to make online purchase (Hai & Kamal, 2015). The government can assist E-commerce by taking fiscal and tax policy, guide policy, exchange rate policy, and administrative support that can accelerate E-commerce development (Nelson & Soete, 1988).

2.5.1.8 Psychological Factor

The second perspective of the usage of the Internet for online shopping is about the types of consumer needs being satisfied. As cited by Leonard (2003), consumer needs can be classified based on Maslow's hierarchy of human needs as following:

1. Physical needs:
   consumers' most basic needs. Examples are groceries, foods, beverages, and home.
2. Safety needs:
   consumers' need to be safe and secure. Examples are insurance, smoke detectors, and security systems.
3. Love and affiliation needs:
   consumers' sense of belonging or the need to be with others. Examples are perfume, cosmetics, and travel.
4. Prestige and esteem needs:
   consumers' need for status. Examples are jewelry, cars, and education.
5. Self-fulfillment needs:

consumers' need for self-actualisation, the complete fulfillment of human capacities, individual enhancement and advancement, and the creation of unique personal identity.

In the study conducted by Leonard (2003), the researcher found that the items frequently sought online are used to satisfy love and affiliation needs. These items include books and magazines, airline tickets, CDs and software, computer equipment, flowers, toys, and cosmetic/personal care products. Clothing is also a frequently sought item and it satisfies a physical need; but it also can be used to fulfill love and affiliation needs. The author concluded that "the respondents fulfilled (purchased) love/affiliation needs the most, followed by physical needs. The Internet was not used frequently to satisfy prestige/esteem, self-fulfillment and/or safety needs" (p. 7).

Generally, psychological factors work as driving forces for an individual. The psychological factor consists of four key elements: motivation, perception, learning, and attitudes or beliefs. Smith and Rupp (2003) stated that consumers make decisions when they purchase, and they are influenced mostly by perception, attitudes motivation, personality, and emotion, which play a vital role in their online buying behavior. Vainikka (2015) found that internal influences—motivations, emotions, personality, and attitudes—are the most influencing factors of the consumers' purchase decision. All these factors work as driving forces inside of an individual to make a choice and a purchase decision. An individual may have two types of personalities: virtual and real-life personalities. Some individual prefers to interact virtually and make online purchase. The person belonging to this type of personality can be more interested in online purchase (Schiffman & Kanuk, 2009). Perception may differ from individual to individual. People's choice criteria are determined

by own perception. Perception is all about how individual think and perceive about the world and draw a meaningful picture based on the information which they obtain from their sensory organs. By an individual's perception, people choose and select the specific products and are influenced through it (Lake, 2009). Learning influences consumers' decision making. Consumers learn from previous incidents or activities. Consumers may learn from marketers' activities or other stimuli beyond the control of marketers according to Perreault & Mccarthy (2002).

Consumers' attitudes may have varied towards music, clothes, food, politics, religion, and so on. The attitude of an individual impacts buying behavior. Consumers make a purchase only when their attitudes towards the perspective products or services are favorable. Marketers should make sure that their products or services have a positive impact on consumers as mentioned by M. Trehan & R. Trehan (2009). Personal factors and its sub-dimensions like market maven, constancy and open minded have established a positive association in the conceptual hypothesis. In the same manner, sales promotion and its sub-dimensions such as psychological factors and physical layout have also positive influence as per statement made by Rehman, Yusoff, Zabri, & Ismail (2017).

2.5.2 Research Hypotheses

From the above discussion, below seven hypotheses (from H1 to H7) have been formulated:

- ***Hypothesis 1 (H1)*** **=**
  Product factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic
- ***Hypothesis 2 (H2)*** **=**
  Price factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic
- ***Hypothesis 3 (H3)*** **=**
  Time factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic
- ***Hypothesis 4 (H4)*** **=**
  Payment factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic
- ***Hypothesis 5 (H5)*** **=**
  Security factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic
- ***Hypothesis 6 (H6)*** **=**
  Administrative factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic
- ***Hypothesis 7 (H7)*** **=**
  Psychological factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic

2.6 Summary of Chapter 2

This chapter is to propose on developing the conceptual framework based on the problem statement as well as the research objectives for this research proposal. Prior in developing the proposed conceptual framework, the applicable theories models as well as the previous similar researches have been adopted and modified from Meher Neger and Burhan Uddin (2020) have been referred. This is in order to make sure the proposed framework can be understood to avoid information mislead and to make sure the relationship can be measured between all related variables. Overall, this chapter 2 has covered the area of research backgrounds, the problem statement, the research objectives, the research questions, the significant of the study, the organizational of the study and follow by the theoretical foundation, empirical research, proposed conceptual framework, and hypothesis development.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

This chapter 3 presents the research philosophy, research approach, research design, study population and sampling procedures method of data collection, operationalization and measurement, data analysis techniques as well as the chapter 3 summary.

3.2 Research Philosophy

According to Saunders, Mark & Lewis, P. & Thornhill, A.(2009), the leading step to be determined within the market investigation and analysis is research philosophy which comprises the global perspective point of view and discusses the knowledge and information interpretation and research developed in this study. To explain the approach the researcher interpret the attained information, researcher explanation in this section is measured. As the study purpose is based on a social research, whereby social – behavior – factor are examined, to establish links with consumer online shopping behavior. The ontological assumptions has a strong connection to interpretivism, as this perspective supports the socially construction of generalising a social group and describes the human as “social actor” (Lewis et al., 2009). The focus is on the detailed differences in behaviour towards online shopping has a subjective meaning on social phenomena and seen as acceptable knowledge, therefore the epistemology (perceived acceptable knowledge from the researcher’s view) corresponds with interpretivism (Lewis et al., 2009). As the research will be value bound in the perspective of interpretivism, the axiology is assumed to be subjective, since the interpretation of the research will be

affected by the social values of the researcher and search for (Lewis et al., 2009). Due to the nature of the research and research philosophy several implications should be considered. The study take a broad view of Malaysia online consumers' group by certain demographic information. The obtained knowledge is interpreted by linking the consumers' online shopping behavior with several factors which were Product, Price, Time, Payment, Security, Administrative and Psychological.

Howard-Sheth model (1969) which suggested that consumer takes rational choice or decision during conducting their purchase and this is repeatable practice or process and it is impacted by a number of internal and external factors. It is an approach for analyzing the combined impact of the social, psychological and marketing factors on the buying behavior or preference of the consumers and the industrial buyers into a logical order of information processing. John Howard and Jagadish Sheth introduced the Howard Sheth Model in the year 1969. The concept was published in their book 'The Theory of Buyer Behaviour'. By saying this, the factors dimensions mentioned in the above theory are taken as a start premise for this research and will be used to as external independent variables to study the Malaysia consumers online shopping behavior during the Covid -19 pandemic.

3.3 Research Approach

The aim for conducting this research is to test the existing literature based on the Howard Sheth Model in the year 1969 on 'The Theory of Buyer Behaviour' on the factors affecting the Malaysian online shopping behavior. The outcome of this study will enlarge the theoretical understanding of values of the factors affecting the consumers' online shopping behavior during the COVID-19 pandemic particularly. The theory

tested is when consumer takes rational choice or decision during conducting their online purchase impacted by a number of internal or external factors. The premise of testing existing literature and thereby enlarging the theoretical support is demanded for a deductive research approach as mentioned by (Lewis et al., 2009).

A deductive approach requests an extensive theoretical research, whereby hypothesis are constructed mentioned by (Lewis et al., 2009). According to Robson (2002) the deductive research approach describes five sequential stages, beginning with construction of the hypothesis, expressing the relationship between two different concepts, testing the hypothesis, examining of the hypothesis and adapting the results to literature. An important criteria to use hypotheses is that causal relationship are drawn between two variables as stated by (Lewis et al., 2009).

The number of internal or external factors relationships in the theory of Howard Sheth Model (1969) and online shopping behaviour has been found and are mentioned in the theoretical background. By connecting the earlier findings, linked the factors in the model which are likely affecting the online shopping behavior among the Malaysian online consumers during the COVID-19 pandemic and found in the literature are used.

3.4 Research Design

After the research philosophy and research approach are defined, the next step, research design, is developed. The research design is the framework which explains how the market research will be conducted and contains the objectives, constrains of the research and ethical issues as stated by (Lewis et al., 2009). Since relationships between the factors and online shopping behavior have been described in literature, the research

design can focus on establishing causal relationships regards to the Malaysia online consumers, thus an explanatory research design has been chosen (Lewis et al., 2009). Nevertheless, since the several gaps are found in the literature a more descriptive approach is necessary. Therefore, a descripto-explanatory research design is requested. The deductive approach and the need to gain empirical data about the Malaysian online consumers, the survey research strategy is most suitable. The survey strategy allows to gather quantitative data, obtained by a close-ended questionnaire to examine the possible factors relationships between variables (Lewis et al., 2009) which the Malaysia online consumers shopping behaviours during the COVID-19 pandemic. Positive aspects of the survey strategy is the possibility to receive data with low costs and which gives more control on the research process.

The time horizon of the study could either be a cross-sectional or longitudinal study, the cross-sectional study is based on the particular moment and the longitudinal study on a more sustainable matter (Lewis et al., 2009). Since this research does not has a focus on the “change and development” (Lewis et al., 2009), the study should be seen automatically as a cross-sectional study.

To obtain creditable research findings, the validity, the reliability and the generalizability of the research should be ensured based on Lewis et al. (2009). The validity of the research concerns if the researched relationships are causal (Lewis et al., 2009). According to Robson (2002) there are four threats to reliability, which should be taken in consideration while conducting the research; (1) “participants’ error”, the participant ability to understand the questions or willingness for serious cooperation with the research. (2) “Participants bias”, whenever the participant do not share the truth. (3) “Observer error” are there questions wrongly asked, (4) “observer bias”, different ways of interpreting the data. To avoid reliability

errors, several precautions are taken into account, based on Robson (2002) four reliability threats. Firstly, to reduce participants' errors, a clear explanation about the purpose of the research and the questions asked are discussed with multiple people to formulate the questions as clears as possible. Secondly, to reduce the participants' bias, the research is voluntary and anonymous. Thirdly, the observer error and bias, as the research strategy is a survey the questions should be on forehand be well structured, further the interpretation of data extracted should be compared with data and interpretations in existing literature.

Based on the study conducted by (Lewis et al., 2009), the generalizability of this study, which concerns the extent to which the research is generalizable is described as: The research strategy is based on a survey and with the Malaysian online consumers which focuses in Selangor to obtain a sample size which is generalizable to the aforementioned target group.

3.5 Data Collection Method

In this study, primary data and secondary data are used to gather applicable data. Firstly, an extensive secondary data analysis is conducted. The information is gathered from existing sources (e.g. scientific articles, textbooks, contemporary data about current markets and other internet sources). The background information and the theoretical support are composed out of a secondary data analysis. Secondly, primary data is collected. Primary data is information based originated for the specific purpose of the problem (Birks et al., 2012). For the primary research a survey is conducted. The survey relays on a convenience sampling technique, this technique is chosen as it is most acceptable with the time and financial limitations of this research. A weakness of this

sample technique, which has been taken in consideration, is that the selected bias could give a less representative sample.

As determined in the generalization of research design, the sample size, N is 75 as disclosed Figure 9. Although, a convenience sample size is chosen, the respondents are selected by the matching gender, variables age, race, nationality, marital status, monthly incomes level, education level, shopping items and online shopping frequency which measured as behavior for this study. To gain access to the number of respondents to reach the determined sample size, the data collection is mainly spread by social media channels. The access to the Bandar Baru Bangi and Kajang, Selangor area of study targeted population, is gained by the use of internet. Online social media pages are used, since they give an easy access to a great number of people due to short time of preparation and pandemic restrictions.

Statistics

		1.Respondents' Gender	2.Age	3.Race	4.Nationality	5.Marital Status	6.Educational Level	7.Employment Status	8.Monthly Income	9.Frequency of Online Shopping	10.Shopping Items
N	Valid	75	75	75	75	75	75	75	75	75	75
	Missing	0	0	0	0	0	0	0	0	0	0

Figure 9: Sample Data Analysis Statistic Table

3.6 Operationalization and Measurement

In quantitative research, that closing stage is called as operationalization where an operational definition entails of the components as per following:

- the variables that to be measured
- the measure that to be used
- how is researcher strategy to interpret the results of that measure

The conceptual of the framework for this study which has been developed has clearly give the right direction of the variables that need to be analyzed and studied so that to observe the impact towards the study outcomes.

3.6.1 Independent Variables

Researcher through this study or research is looking into seven (7) variables that been identified as independent variables. All of the variables are labelled as hypothesis statement. There are:

- ***Hypothesis 1 (H1)*** **=**
  Product factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic
- ***Hypothesis 2 (H2)*** **=**
  Price factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic
- ***Hypothesis 3 (H3)*** **=**
  Time factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic
- ***Hypothesis 4 (H4)*** **=**
  Payment factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic
- ***Hypothesis 5 (H5)*** **=**
  Security factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic
- ***Hypothesis 6 (H6)*** **=**
  Administrative factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic
- ***Hypothesis 7 (H7)*** **=**

Psychological factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic

The above variables are significant which affected towards the dependent variable.

3.6.2 Dependent Variables

The dependent variables refer to that type of variable that measures the effect of the independent variable(s) on the test units. It can be said that the dependent variables are the types of variables that are completely dependent on the independent variable(s). The other name for the dependent variable is the Predicted variable(s). The dependent variables are named as such because they are the values that are predicted or assumed by the predictor or the independent variables.

The dependent variable or the outcome for this study model is the consumers' online shopping behavior. This were the main objectives of this research. The aim of this particular research project is to understand, predict, or explain the variability of this variable.

3.7 Data Analysis

This study used quantitative methods and involved a sample consisting of 81 online respondents who have been involved in online shopping at the area of Bandar Baru Bangi and Kajang, Selangor. After further analysis, only 75 respondents' data could be used for this study. Questionnaires in the form of Google electronic form which were distributed to target respondents to collect survey information.

Questionnaires were used to gather information on the features and variables to be studied. The questionnaires were adopted based on a sample of past research such as from Meher Neger and Burhan Uddin (2020), which study on the same title and background but in the perspective of Bangladesh as well as based on study conducted by Amanda J. Wynn (2009), on his research title, An Investigation of the Contributions of Gender, Shopping Orientation, Online Experience, and Website's Interactive Features to Consumers' Intentions to Engage in Apparel E-commerce Shopping and also the study conducted by Vandana Sonwaney & Snehal Chincholkar (2009) on their research title, Identifying The Factors Impacting Online Consumer Buying Behaviour.

In this study, the consumers' online shopping behavior was chosen as the dependent variable while the factors of product, price, time, payment, security, administrative and psychological were used as the independent variables. The study used the above seven contracts to influence consumers' online shopping behavior during the COVID-19 pandemic. Product factor comprises of the product brand, product features, and product assortment or diversity. Price factor comprises of lower cost of delivery charges, rational price and also suitable price. While the time saving factor consist of less of waste time, less time consuming in products evaluating and selecting, and also less time to purchase processes. Payment factor consist of convenient cash on delivery offered by vendors or sellers, safe in transactions with this web, and secure financial transaction. While Security factor comprises of safe and secure of E-commerce websites, protecting consumers' security, as well as trustworthy E-commerce websites. Administrative factor includes social distancing, stay at home, and lockdown. Psychological factor includes interest and hobby, attitudes and perception, and feelings excitement.

The research has used the scaling technique which was the five-point Likert scale to stimulate the responses. The respondents have marked the point that the best indicates how they would describe the object being rated. Respondents are asked to rate their degree of agreement or disagreement on a five-point Likert scale ranging from strongly disagree to strongly agree. Before finalizing the questionnaire, a pretesting have been done.

Questionnaires were developed as closed-ended basis questions which are easy to code, to analyze, as well as easy to compare with other answers and permit time saving for the respondents and researcher. Researcher has provided the questionnaires in two languages which were English and Bahasa Melayu in order to make ease the respondents to understand and to well interpret them in order to best answer it.

Non-probability sampling has been used because it is less costly and less time consuming to prepare a sampling frame. Among the several ways of non-probability sampling, convenience and judgmental sampling technique has been used because it is readily available and convenient, and generates relatively low cost. For the study it is relevant to be able to obtain a sample of around 81 respondents however on 75 respondents data could be used. The research collected data from July 2021 to August 2021 by using the online survey method which was through the Google Form method using a structured design questionnaire with five-point Likert scales from 75 online consumers in the perspective of Malaysian. Data are collected from Malaysian consumers at the above mentioned area of Selangor who have made or have online purchase experiences. The data encoded in SPSS 23.0 software for analysis. It is analyzed using descriptive statistics analysis, reliability statistics analysis, factor analysis, regression analysis and neural network analysis.

3.8 Analysis Techniques

Once the data have been gathered using the above appropriate data collection method, it will be then analysed using the software application of Statistical Package for Social Sciences (SPSS) version 23. Descriptive and inferential statistics were used for data analysis in this study. The descriptive analysis used includes frequency and percentage while inference analysis was a multiple regression test.

The data analysis will be using factor analysis, SPSS which two important methods in this analysis which is a descriptive analysis using mean, median, mode, percentages, frequency and range, and inferential analysis using correlation, regression, and analysis of variance. In addition, researcher also has used either the table, bar graphs, histogram bar, horizontal bar, pie charts, line chart, pie graphs and or other methods of analysis to show the results or outcome of the survey and findings for this study.

3.8.1 Descriptive Analysis Techniques

Researcher through this descriptive analysis for this study has tries to explicate the population characteristic that is studied which was the demographic segment in Bandar Baru Bangi and Kajang Selangor which involved in online shopping during the COVID-19 pandemic. Researcher had focused on the quantitative research as the method that gathered measureable data, and then after used it for statistical analysis of the population sample such as by using the SPSS statistical software. This method was suitable for the research conduct as the researcher try to find the answers on why the population of certain areas based on their nature demographic segment react in that manner. The researcher also using

this descriptive analysis technique as it will help the researcher in terms of define respondent characteristics, by using a close-ended question, the respondent will show their drive pattern, traits, and behavior and their attitude toward the question that been asked to them.

3.8.2 Inferential Analysis Techniques

The most common methodologies in inferential statistics are hypothesis tests, factor analysis and multi regression analysis. Interestingly, these inferential methods can produce similar summary values as descriptive statistics, such as the mean and standard deviation.

Inferential statistics used in this study are the statistical procedures that are used to reach conclusions about associations between the study variables. It differ from descriptive statistics in that they are explicitly designed to test hypotheses.

Hypothesis testing is an act in statistics whereby an analyst tests an assumption regarding a population parameter. The methodology employed depends on the nature of the data used and the reason for the analysis.

Regression analysis is a set of statistical methods used for the estimation of relationships between a dependent variable and one or more independent variables. It can be utilized to assess the strength of the relationship between variables and for modeling the future relationship between them. Regression analysis includes several variations, such as linear, multiple linear, and nonlinear. The most common models are simple linear and multiple linear.

Linear regression analysis is based on six fundamental assumptions:

The dependent and independent variables show a linear relationship between the slope and the intercept.

- The independent variable is not random.
- The value of the residual (error) is zero.
- The value of the residual (error) is constant across all observations.
- The value of the residual (error) is not correlated across all observations.
- The residual (error) values follow the normal distribution.

The other analysis that will be conducted are by comparing means, the use of general linear model for analysis of variance (ANOVA) as well as factor analysis and neural networks analysis for comparative studies to show the linear effect or non-effect between variables and predictors. This analysis will be supported by using of SPSS and other appropriate Microsoft software such as Excel as well as presentations of various data graphs, histograms, charts and tables whichever applicable and useful or significance for this study.

3.9 Summary of Chapter 3.0

This section consist of the introduction to the research methodology, the research philosophy, research approach, the research design, the study population and sampling procedures, the data collection method, the operationalization and measurement, the independent variables, the dependent variable, the technique for data analysis, the technique for descriptive analysis, the technique for inferential analysis as well as the summary for this chapter which defines how will the related variables will be measured.

This study focus and developed on hypothesis to find the relationship between both of the independent and dependent variables in positive ways based on the independent variables influences factors taken from the previous tested analysis and studies. By using the application data analysis techniques which are the statistically analysis methods, the descriptive and inferential analysis techniques using of the SPSS as the major tools in order to fulfill and to meet the study or research objectives.

CHAPTER 4
DATA AND ANALYSIS

4.1 INTRODUCTION

The data received from 75 number of respondent's feedback which have been analyzed based on the Google form responses and SPSS analyses. The online form of questionnaires that has been distributed to the respondent's and from that researcher received back total 81 respond or feedback from respondents. After further data filtration, only 75 respondents' data can be used which is represented around 92% of total actual respondents. As mentioned earlier due to constraining from COVID 19 and government Movement Control Order, researcher need to prepare questionnaires through Google online form and distribute it through internet social medias for the respondent to answers it. The questionnaires has been attached on the appendix section. The questionnaires were adopted based on a sample of past research such as from Meher Neger and Burhan Uddin (2020), which study on the same title and background but in the perspective of Bangladesh as well as based on study conducted by Amanda J. Wynn (2009), on his research title, An Investigation of the Contributions of Gender, Shopping Orientation, Online Experience, and Website's Interactive Features to Consumers' Intentions to Engage in Apparel E-commerce Shopping and also the study conducted by Vandana Sonwaney & Snehal Chincholkar (2009) on their research title, Identifying The Factors Impacting Online Consumer Buying Behaviour.

4.2 FREQUENCIES ANALYSIS

FREQUENCIES produces tables that show frequency counts and percentages of the values of individual variables. Researcher also use FREQUENCIES to obtain summary statistics tables for both categorical and continuous variables (IBM online, 2021) for this study.

The SPSS data details outcome or results for the frequencies analyses for this study are as follows:

Statistics

		1.Respondents' Gender	2.Age	3.Race	4.Nationality	5.Marital Status	6.Educational Level	7.Employment Status	8.Monthly Income	9.Frequency of Online Shopping	10.Shopping Items
N	Valid	75	75	75	75	75	75	75	75	75	75
	Missing	0	0	0	0	0	0	0	0	0	0

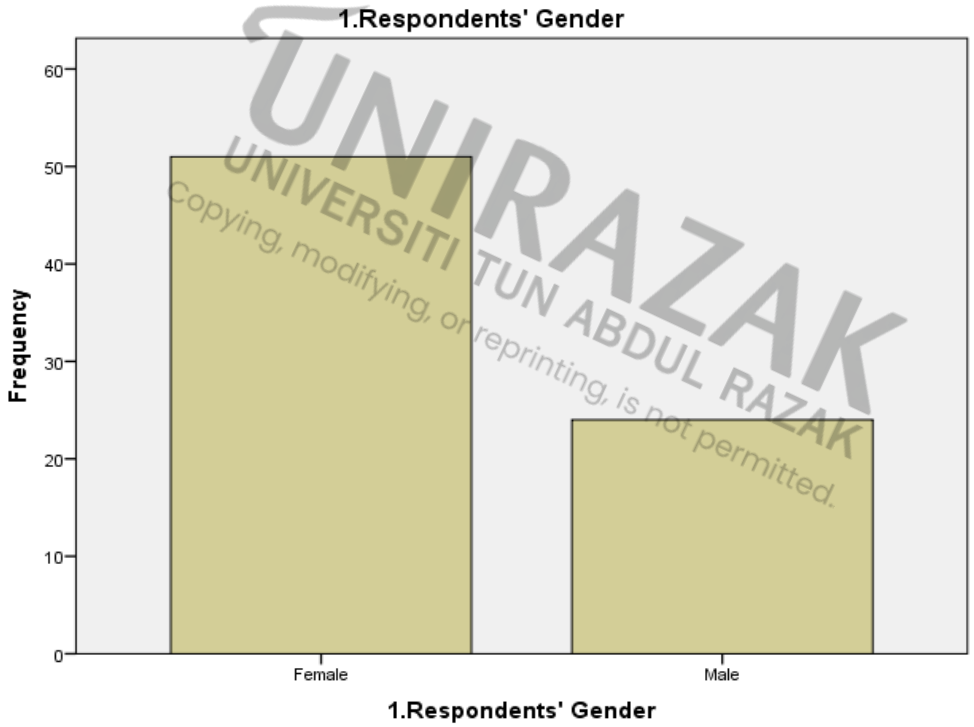
Figure 10

Frequency Tables and Bar Charts

Respondents' Gender

1.Respondents' Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	51	68.0	68.0	68.0
	Male	24	32.0	32.0	100.0
	Total	75	100.0	100.0	



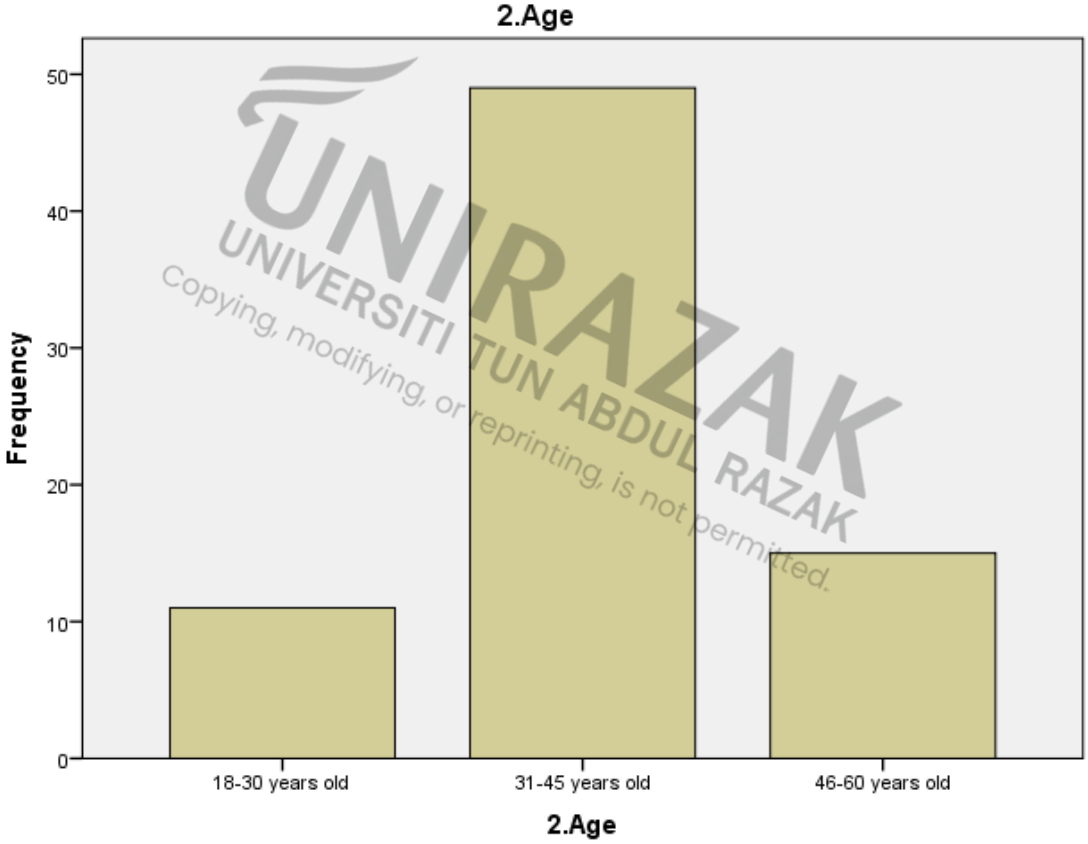
Note / Findings:

Highest frequency of respondents' gender is female with total 51 respondents while male is total 24 respondents.

Respondents' Age

2.Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-30 years old	11	14.7	14.7	14.7
	31-45 years old	49	65.3	65.3	80.0
	46-60 years old	15	20.0	20.0	100.0
	Total	75	100.0	100.0	



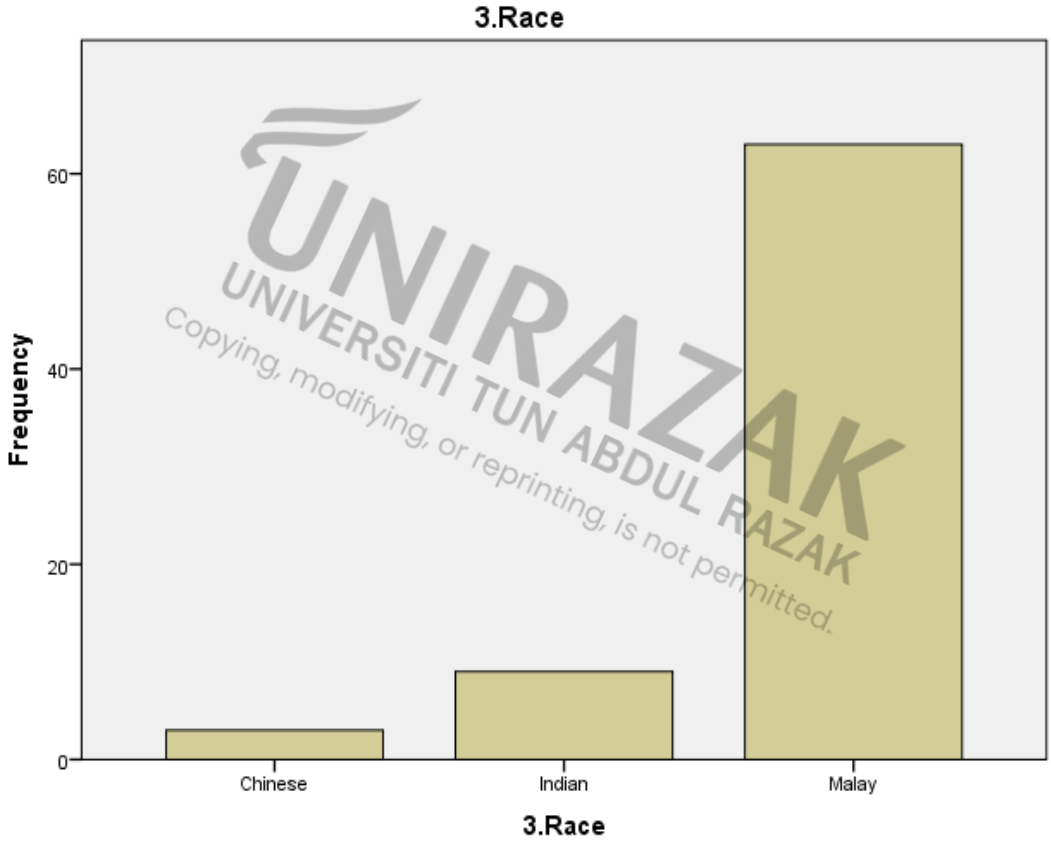
Note / Findings:

Highest frequency of respondents' age is between 31 ~ 45 years old. Second is 46 ~ 60 years old and thirdly is 18 ~ 30 years old.

Respondents' Race

3.Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chinese	3	4.0	4.0	4.0
	Indian	9	12.0	12.0	16.0
	Malay	63	84.0	84.0	100.0
	Total	75	100.0	100.0	



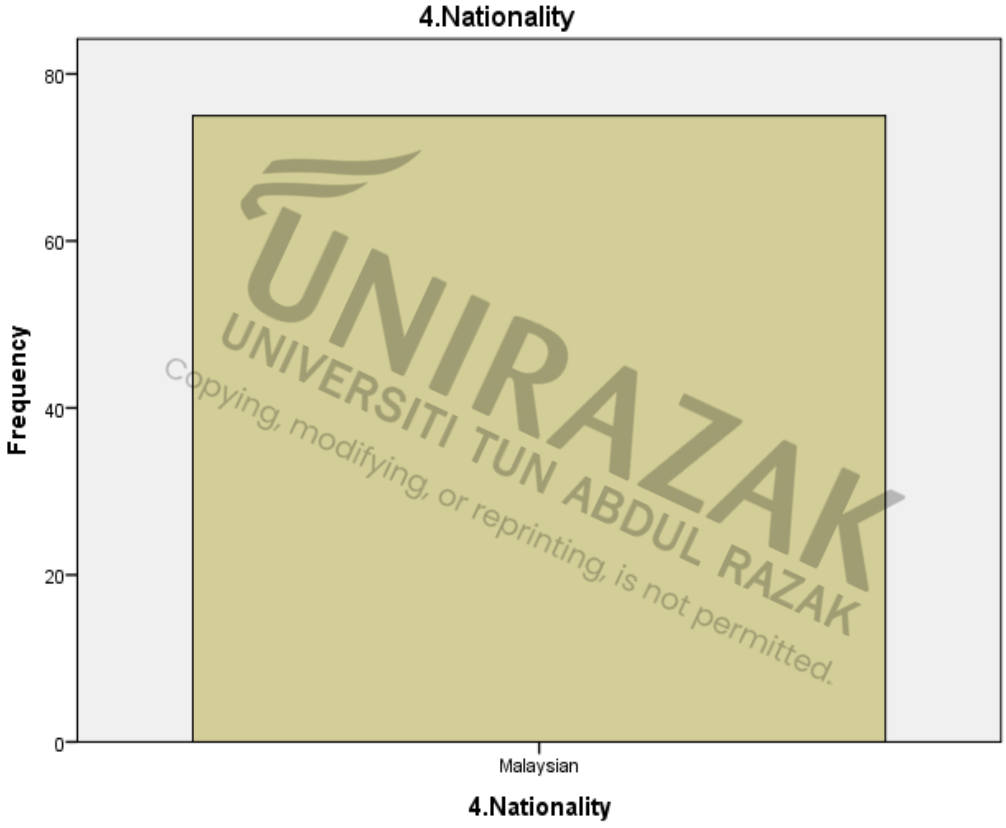
Note / Findings:

Highest frequency of respondents' race is Malay. Second is Indian and thirdly is Chinese.

Respondents' Nationality

4.Nationality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malaysian	75	100.0	100.0	100.0



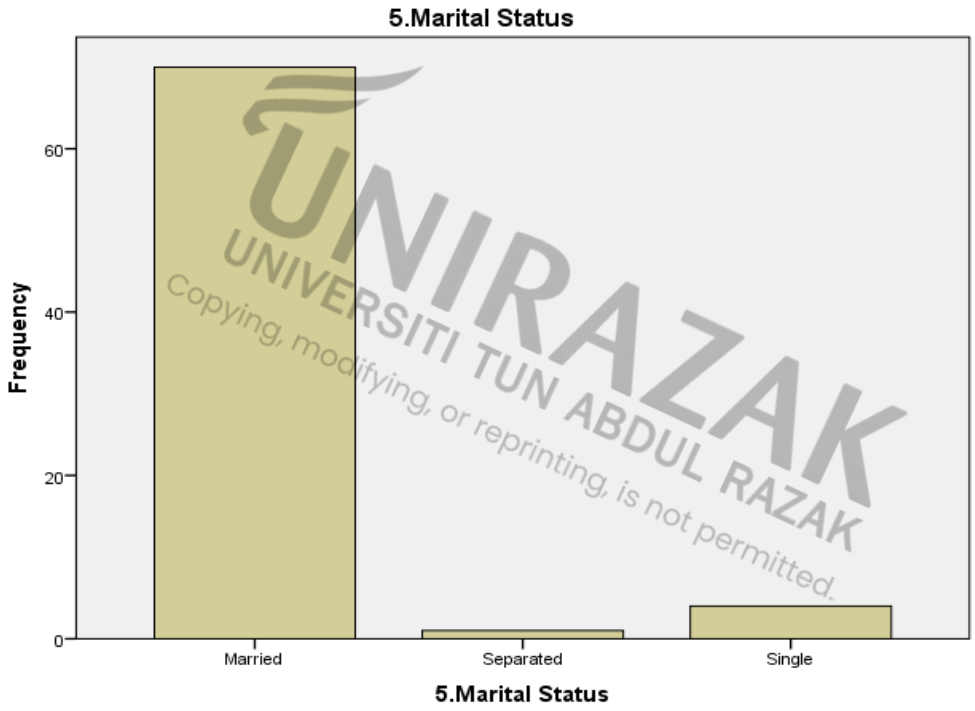
Note / Findings:

Full frequency of respondents' nationality are 100% Malaysian

Respondents' Marital Status

5.Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	70	93.3	93.3	93.3
	Separated	1	1.3	1.3	94.7
	Single	4	5.3	5.3	100.0
	Total	75	100.0	100.0	



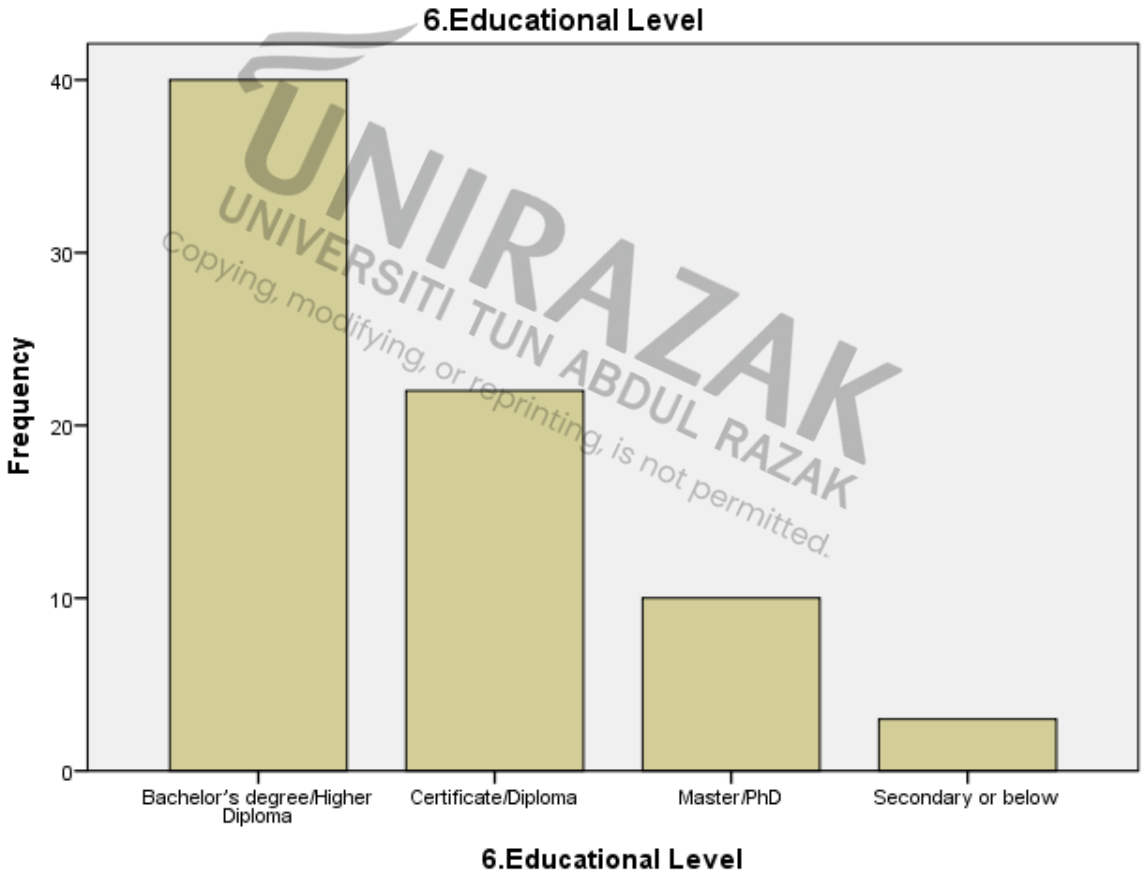
Note / Findings:

Highest frequency of respondents' group status is married status. Secondly is single status and thirdly is separated group status.

Respondents' Education Level

6.Educational Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor's degree/Higher Diploma	40	53.3	53.3	53.3
	Certificate/Diploma	22	29.3	29.3	82.7
	Master/PhD	10	13.3	13.3	96.0
	Secondary or below	3	4.0	4.0	100.0
	Total	75	100.0	100.0	



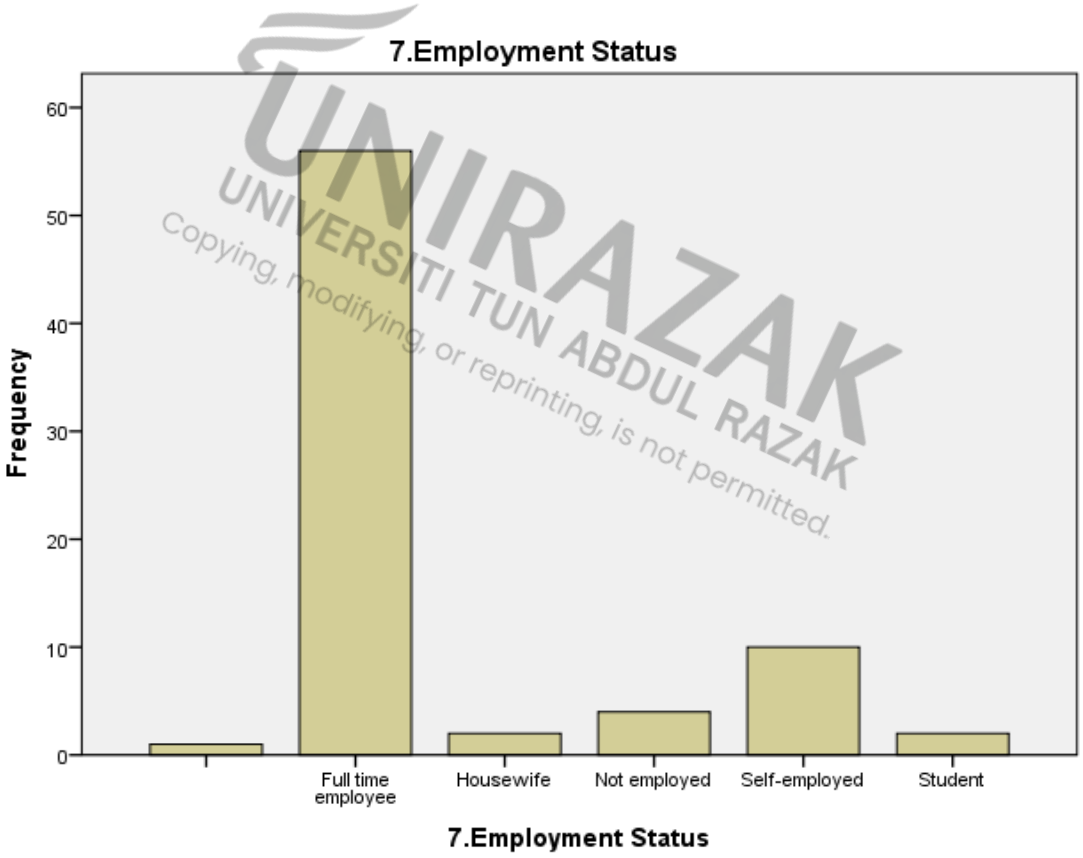
Note / Findings:

Highest frequency of respondents' educational level is Bachelor's degree/ Higher Diploma. Secondly is Certificate/Diploma. Thirdly is Master/PhD and the lowest frequency is Secondary or below education level.

Respondents' Employment Status

7.Employment Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	1.3	1.3	1.3
	Full time employee	56	74.7	74.7	76.0
	Housewife	2	2.7	2.7	78.7
	Not employed	4	5.3	5.3	84.0
	Self-employed	10	13.3	13.3	97.3
	Student	2	2.7	2.7	100.0
	Total	75	100.0	100.0	



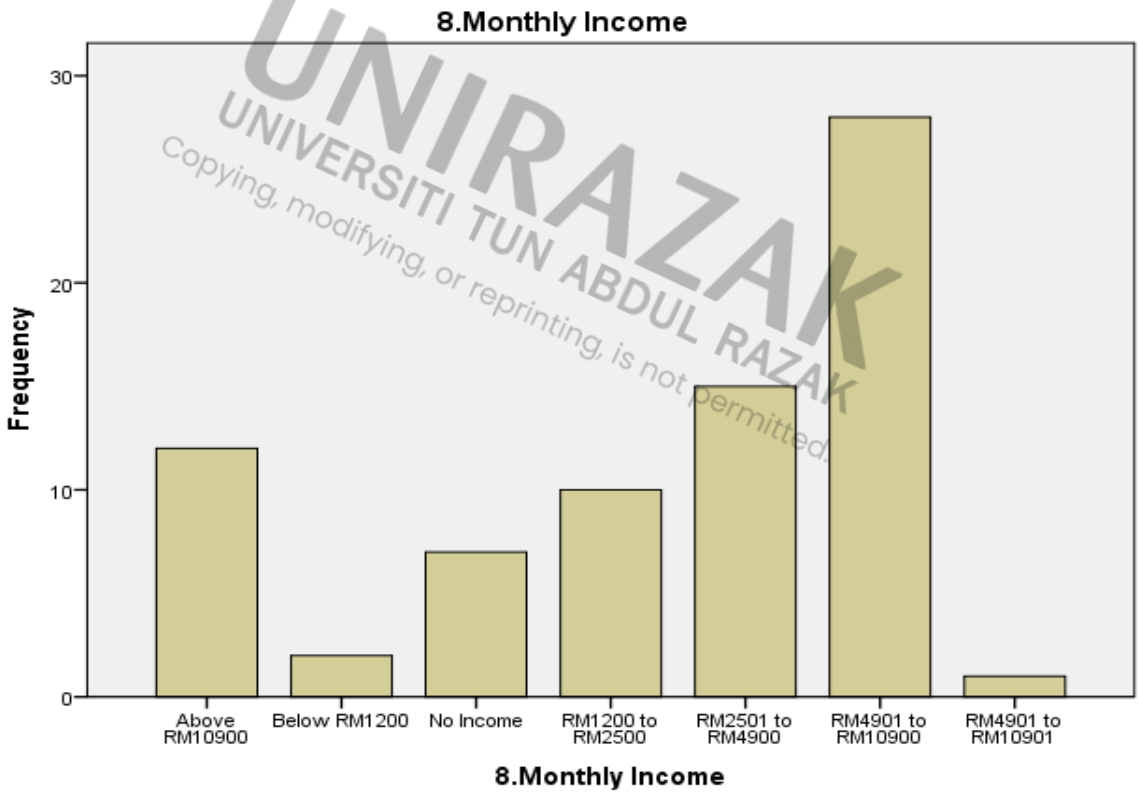
Note / Findings:

Highest frequency of respondents' employment status is full time employees group. Secondly is self-employed group, and thirdly is not employed. While both student and housewives groups are equal.

Respondents' Monthly Income

8.Monthly Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Above RM10900	12	16.0	16.0	16.0
	Below RM1200	2	2.7	2.7	18.7
	No Income	7	9.3	9.3	28.0
	RM1200 to RM2500	10	13.3	13.3	41.3
	RM2501 to RM4900	15	20.0	20.0	61.3
	RM4901 to RM10900	28	37.3	37.3	98.7
	RM4901 to RM10901	1	1.3	1.3	100.0
	Total	75	100.0	100.0	



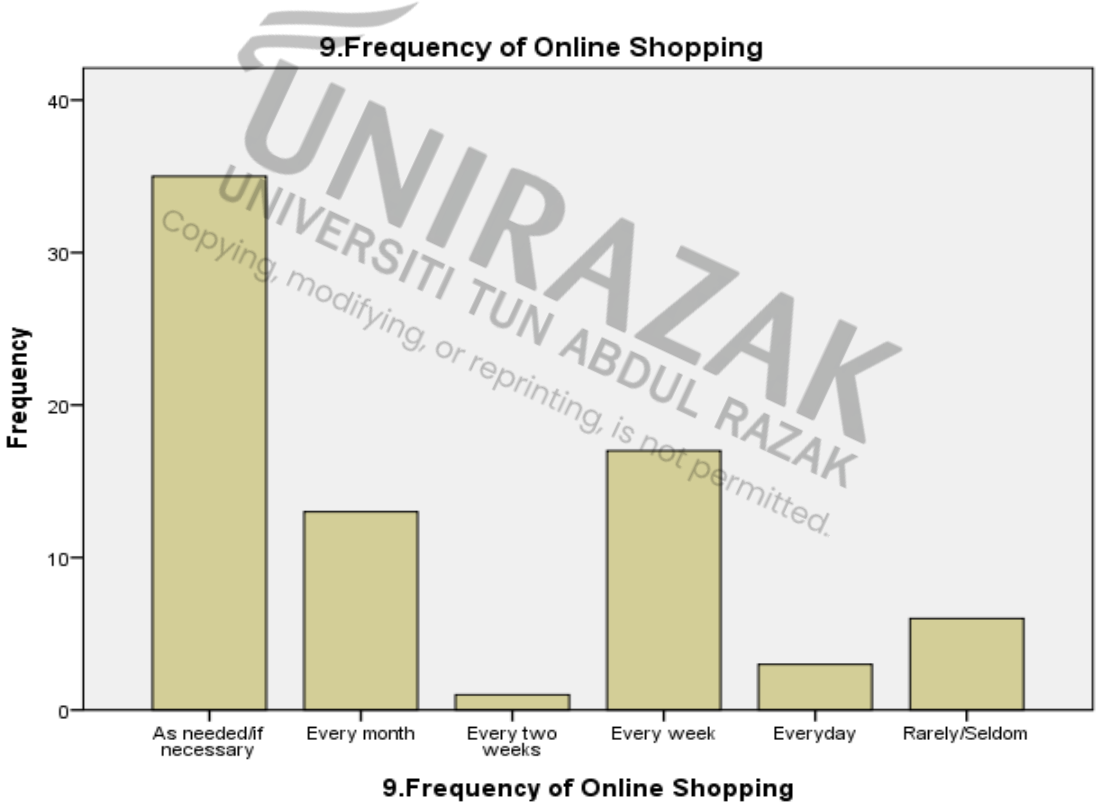
Note / Findings:

Monthly income by ranking high to low are as above. The highest frequency is *RM4901 to RM10900* group. Secondly is *RM2501 to RM4900* group and thirdly is *Above RM10900* group.

Respondents' Frequency of Online Shopping

9.Frequency of Online Shopping

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	As needed/if necessary	35	46.7	46.7	46.7
	Every month	13	17.3	17.3	64.0
	Every two weeks	1	1.3	1.3	65.3
	Every week	17	22.7	22.7	88.0
	Everyday	3	4.0	4.0	92.0
	Rarely/Seldom	6	8.0	8.0	100.0
	Total	75	100.0	100.0	



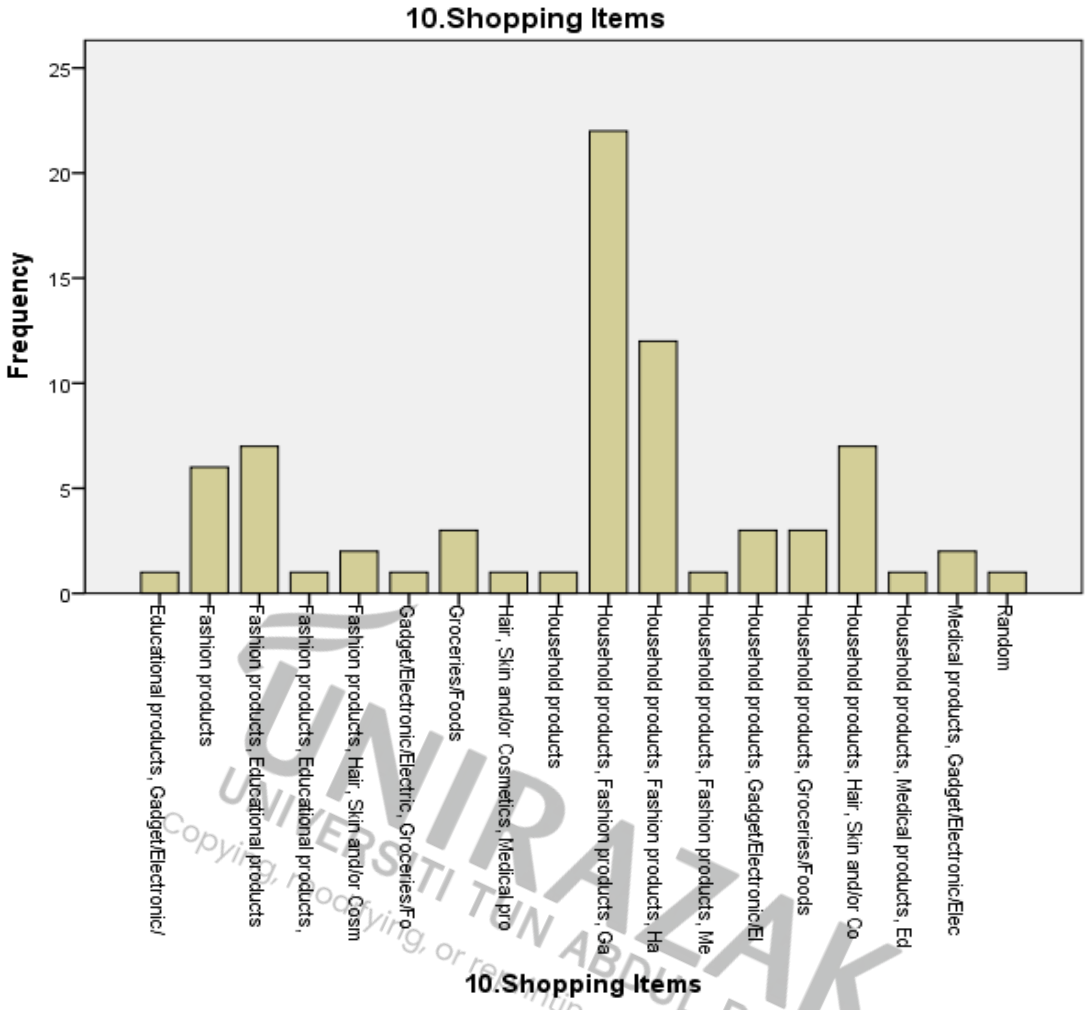
Note / Findings:

Highest frequency of respondents' for number of online shopping is as needed/if necessary and secondly is every week. After is every month then rarely seldom. The rest after are every day and every two weeks.

Respondents' Shopping Items

10.Shopping Items

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Educational products, Gadget/Electronic/	1	1.3	1.3	1.3
	Fashion products	6	8.0	8.0	9.3
	Fashion products, Educational products	7	9.3	9.3	18.7
	Fashion products, Educational products,	1	1.3	1.3	20.0
	Fashion products, Hair, Skin and/or Cosm	2	2.7	2.7	22.7
	Gadget/Electronic/Electric, Groceries/Fo	1	1.3	1.3	24.0
	Groceries/Foods	3	4.0	4.0	28.0
	Hair, Skin and/or Cosmetics, Medical pro	1	1.3	1.3	29.3
	Household products	1	1.3	1.3	30.7
	Household products, Fashion products, Ga	22	29.3	29.3	60.0
	Household products, Fashion products, Ha	12	16.0	16.0	76.0
	Household products, Fashion products, Me	1	1.3	1.3	77.3
	Household products, Gadget/Electronic/El	3	4.0	4.0	81.3
	Household products, Groceries/Foods	3	4.0	4.0	85.3
	Household products, Hair, Skin and/or Co	7	9.3	9.3	94.7
	Household products, Medical products, Ed	1	1.3	1.3	96.0
	Medical products, Gadget/Electronic/Elec	2	2.7	2.7	98.7
	Random	1	1.3	1.3	100.0
	Total	75	100.0	100.0	



Note / Findings:

Highest frequency of respondents' shopping items are household products, fashion products and gadget/electronic/electric. Second highest are household products, fashion products and Hair, Skin and/or Cosmetics. The others can be referred at above frequency table for shopping items.

4.3 DESCRIPTIVE STATISTIC ANALYSIS

According to research statement by Sharma, Sohil (2019), the brief descriptive coefficients compiling a data set that is either a representation of entire population or a sample is called Descriptive Statistics. The main purpose is to provide a summary of the samples and measures done on a study. Descriptive Statistics form a major component of all quantitative data analysis when coupled with several graphics' analysis.

Based on this study practices, the methods of mean distribution of the findings as following:

- mean score from 0.01 to 1.00 is (strongly disagree);
- to 2.00 is (disagree);
- from 2.01 until 3.00 is (neutral);
- 3.01 until 4:00 is (agree);
- mean score from 4.01 until 5.00 is (strongly agree)

STATISTICS

FACTORS	Items	N	Min.	Max	Mean	SD
Administrative	Online shopping to reduce the social interaction or physical contact between people to help reduce the risk of transmission of coronavirus	75	1	5	4.48	.723
	Shopping online allowed me to stay-at-home as per the government recommendation during pandemic	75	1	5	4.47	.664
	Shopping online due to the non-essentials economy and social lockdown enforcement by government during pandemic	75	1	5	4.25	.718
Timing	Online shopping offers possibility of 24hours, 7days of shopping, no shopping time limit	75	1	5	4.35	.688
	Online shopping saves time to purchase	75	1	5	4.17	.760
Product	There are a variety of products sold/offered in shopping websites	75	3	5	4.29	.610
	Easy to find, choose and buy my preferred products' brands	75	1	5	3.95	.733
	The product purchased online are the same quality as the product purchased in a physical store	75	1	5	3.84	.717
Payment	Online shopping offer convenient online payment using various online payment channels	75	1	5	4.25	.660
Security	Online financial transaction is safe and controlled during online shopping	75	1	5	3.79	.827
Psychological	Feel satisfied with the deal and process with online purchases during pandemic	75	1	5	3.76	.714
	Online shopping give me peace; stress, hassle and worry free of minds during pandemic	75	1	5	3.75	.856

Table 4.2 – Mean Scores

Note / Findings:

Table 4.2 list selection based on mean scores of 3.70 and above based on overall sample mean calculation.

As stated in the Table 4.2, all the Key Factor which impact consumers' online shopping behaviour during COVID-19 pandemic. In the above table, selected factors present with mean score of 4.00 or more (strongly agree).

Administrative Factor becomes the key factor as per study results or findings. Majority of respondents for this survey strongly agree with Administrative Factor: "Online shopping to reduce the social interaction or physical contact between people to help reduce the risk of transmission of coronavirus" (with mean score is 4.48) ; "Shopping online allowed me to stay-at-home as per the government recommendation during pandemic" (with mean score is 4.47) and "Shopping online due to the non-essentials economy and social lockdown enforcement by government during pandemic" (with mean score is 4.25). Therefore this factor become the major factor which major significantly affects consumers' online shopping behaviour during COVID-19 pandemic. The highest score factor has been used for final analysis for this study.

Secondly is Timing Factor: "Online shopping offers possibility of 24hours, 7days of shopping, no shopping time limit" (with mean score is 4.35); "Online shopping saves time to purchase" (with mean score is 4.17).

Thirdly is under Product Factor: There are a variety of products sold/offered in shopping websites (with mean score is 4.29).

Fourthly is under Payment Factor: Online shopping offer convenient online payment using various online payment channels (with mean score is 4.25).

4.4 RELIABILITY ANALYSIS

According to Nawi, Farahiyah & A.Tambi, Abdul & Samat, Muhammad & Mustapha, Wan. (2020), the Cronbach alpha is used to measure the consistency or reliability between several items, measurements or ratings. In addition, the Cronbach alpha also used to check on the stability of the instrument which measures the research variables. Cronbach's alpha shows the degree of internal consistency. It is a meaning of the number of factors in the scale and the degree of their inter-correlations. It ranges from zero to one exclusively, and it measures the proportion of variability that is shared among factors.

According to Konting et.Al (2009), the value of reliability was interpreted by comparing the value of Cronbach Alpha with the following table:

Alpha Cronbach Value	**Interpretation**
0.91 – 1.00	Excellent
0.81 – 0.90	Good
0.71 – 0.80	Good and Acceptable
0.61 – 0.70	Acceptable
0.01 – 0.60	Non-Acceptable

Table 4.3 – The Alpha Cronbach Value (Konting et. Al, 2009)

A general accepted rule is that of 0.6-0.7 indicates an acceptable level of reliability, and 0.8 or greater a very good level. (Hulin, Netemeyer, and Cudeck, 2001)

Based on study, Griethuijsen et al. (2014) reported a cross-national study looking at student interests in science where "several of the values calculated for Cronbach's alpha are below the acceptable values of 0.7 or 0.6" (p.588).

RESULTS OBTAINED

RELIABILITY ANALYSIS FOR PRODUCT FACTORS:

Reliability Statistics

Cronbach's Alpha	N of Items
.719	4

Note / Findings:

For the **Product Factors**, the consistency of every single item with 75 total number of respondents, 71.9% are reliable. The Cronbach's Alpha recommendation value should be ≥ 70% which the reliability is good measured. In this case, the amount above is **good and acceptable**.

RELIABILITY ANALYSIS FOR PRICING FACTORS:

Reliability Statistics

Cronbach's Alpha	N of Items
.809	4

Note / Findings:

For the **Pricing Factors**, the consistency of every single item with 75 total number of respondents, 80.9% are reliable. The Cronbach's Alpha recommendation value should be ≥ 70% which the reliability is good measured. In this case, the amount above is **good/very good**.

RELIABILITY ANALYSIS FOR TIME FACTORS:

Reliability Statistics

Cronbach's Alpha	N of Items
.619	3

Note / Findings:

For the **Time Factors**, the consistency of every single item with 75 total number of respondents, 61.9% are reliable. The Cronbach's Alpha recommendation value should be ≥ 70% which the reliability is good measured. In this case, the amount above is **acceptable**.

RELIABILITY ANALYSIS FOR PAYMENT FACTORS:

Reliability Statistics

Cronbach's Alpha	N of Items
.655	3

Note / Findings:

For the **Payment Factors**, the consistency of every single item with 75 total number of respondents, 65.5% are reliable. The Cronbach's Alpha recommendation value should be ≥ 70%. In this case, the amount above is **acceptable**.

RELIABILITY ANALYSIS FOR SECURITY FACTORS:

Reliability Statistics

Cronbach's Alpha	N of Items
.710	4

Note / Findings:

For the **Security Factors**, the consistency of every single item with 75 total number of respondents, 71.0% are reliable. The Cronbach's Alpha recommendation value should be ≥ 70%. In this case, the amount above is **good/ acceptable**.

RELIABILITY ANALYSIS FOR ADMINISTRATIVE FACTORS:

Reliability Statistics

Cronbach's Alpha	N of Items
.863	3

Note / Findings:

For the **Administrative Factors**, the consistency of every single item with 75 total number of respondents, 86.3% are reliable. The Cronbach's Alpha recommendation value should be ≥ 70% which the reliability is good measured. In this case, the amount above is **good/ very good**.

RELIABILITY ANALYSIS FOR PSYCHOLOGICAL FACTORS:

Reliability Statistics

Cronbach's Alpha	N of Items
.782	4

Note / Findings:

For the **Psychological Factors**, the consistency of every single item with 75 total number of respondents, 78.2% are reliable. The Cronbach's Alpha recommendation value should be ≥ 70% which the reliability is good measured. In this case, the amount above is **good and acceptable**.

***SUMMARY OF RELIABILITY ANALYSIS FOR ALL FACTORS*:**

Item	**Independent Variables**	**Cronbach's Alpha**	**Statement**
H1	Product Factors	.719	Acceptable/Good
H2	Pricing Factors	.809	Good/Very Good
H3	Time Factors	.619	Acceptable
H4	Payment Factors	.655	Acceptable
H5	Security Factors	.710	Acceptable/Good
H6	Administrative Factors	.863	Good/Very Good
H7	Psychological Factors	.782	Acceptable/Good

Therefore based on the above, overall the survey instruments are acceptable and reliable to measure all factors consistently and free from random error.

4.5 FACTOR ANALYSIS

According to Gabor, Manuela Rozalia (2010), the factor analysis is defined in the literature as being a method that researches the interdependence relations among several variables whose help, a certain phenomenon is defined, by reducing the amount of information comprised in initial variables and establishment of a smaller set of dimensions (called factors), aiming to a minimum loss of information and focusing on the analysis of the interdependence between them. The basic principle in the factor analysis consists in maximization of variance between statistic units concerned and finding the centre lines (components) of cloud of points inertia (variation).

Gabor, Manuela Rozalia (2010) again mentioned in his study that the factor analysis is in line with some targeted objectives as:

- Reducing the number of variables in order to remove redundancies and simplify the study from optional reasons, the purpose being that of keeping only these new variables for further research;
- Classification of variables, finding a structure of relations between variables respectively and as a result, interpretation and understanding of obtained factors will be enabled;
- To identify latent structures – factors – explaining correlations within a set of variables;
- To identify a new and smaller set of non-correlated variables to replace the original set of correlated variables in analyses to follow (discriminant analysis or regression analysis);

Kaiser (1974) through Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy recommends a bare minimum of 0.5 and the value between 0.5 and 0.7 are mediocre, value between 0.7 and 0.8 are good, value between 0.8 and 0.9 are great and value between 0.9 and above are superb (Hutcheson &

Sofroniou, 1999), suited for factor analysis. While Bartlett's test is highly significant ($p < 0.001$), and factor analysis for these data is appropriate.

Applications of factor analysis for marketing data are various taking into consideration the multitude and great diversity of variables studied in the field of marketing. The factor analyses using SPSS for this study for all factors are provided below:

PRODUCT FACTOR ANALYSIS:

Note / Findings:

Correlation Matrix:

- All Significant Values are not greater than 0.05
- All correlation coefficients are not greater than 0.9
- Determinant Value = 0.369 (greater than necessary value of 0.00001)

Therefore, multicollinearity is not a problem for these data for product factor.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.609
Bartlett's Test of Sphericity	Approx. Chi-Square	71.612
	df	6
	Sig.	.000

Note / Findings:

- KMO value of 0.609 is acceptable and mediocre. Factor analysis is appropriate for these data.
- Bartlett's test is highly significant ($p < 0.001$), and therefore factor analysis for these data is appropriate.

PRICING FACTOR ANALYSIS:

Note / Findings:

Correlation Matrix:

- All Significant Values are not greater than 0.05
- All correlation coefficients are not greater than 0.9
- Determinant Value = 0.255 (greater than necessary value of 0.00001)

Therefore, multicollinearity is not a problem for these data for product factor.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.766
Bartlett's Test of Sphericity	Approx. Chi-Square	98.022
	df	6
	Sig.	.000

Note / Findings:

- KMO value of 0.766 is good. Factor analysis is appropriate for these data.
- Bartlett's test is highly significant ($p < 0.001$), and therefore factor analysis for these data is appropriate.

TIMING FACTOR ANALYSIS:

Note / Findings:

Correlation Matrix:

- All Significant Values are not greater than 0.05
- All correlation coefficients are not greater than 0.9
- Determinant Value = 0.368 (greater than necessary value of 0.00001)

Therefore, multicollinearity is not a problem for these data for these factor.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.466
Bartlett's Test of Sphericity	Approx. Chi-Square	72.065
	df	3
	Sig.	.000

Note / Findings:

- KMO value of 0.466 is less than 0.5. Factor analysis is less appropriate for these data.
- Bartlett's test is highly significant ($p < 0.001$), and therefore factor analysis for these data is appropriate.

PAYMENT FACTOR ANALYSIS:

Note / Findings:

Correlation Matrix:

- All Significant Values are not greater than 0.05
- All correlation coefficients are not greater than 0.9
- Determinant Value = 0.624 (greater than necessary value of 0.00001)

Therefore, multicollinearity is not a problem for these data for these factor.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.605
Bartlett's Test of Sphericity	Approx. Chi-Square	34.043
	df	3
	Sig.	.000

Note / Findings:

- KMO value of 0.605 is acceptable and mediocre. Factor analysis is appropriate for these data.
- Bartlett's test is highly significant ($p < 0.001$), and therefore factor analysis for these data is appropriate.

SECURITY FACTOR ANALYSIS:

Note / Findings:

Correlation Matrix:

- All Significant Values are not greater than 0.05 except for question 26 and 27.
- All correlation coefficients are not greater than 0.9
- Determinant Value = 0.270 (greater than necessary value of 0.00001)

  Therefore, multicollinearity is not a problem for these data for these factor.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.719
Bartlett's Test of Sphericity	Approx. Chi-Square	94.072
	df	6
	Sig.	.000

Note / Findings:

- KMO value of 0.719 is good. Factor analysis is appropriate for these data.
- Bartlett's test is highly significant ($p < 0.001$), and therefore factor analysis for these data is appropriate.

ADMINISTRATIVE FACTOR ANALYSIS:

Note / Findings:

Correlation Matrix:

- All Significant Values are not greater than 0.05
- All correlation coefficients are not greater than 0.9
- Determinant Value = 0.140 (greater than necessary value of 0.00001)

Therefore, multicollinearity is not a problem for these data for these factor.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.642
Bartlett's Test of Sphericity	Approx. Chi-Square	141.956
	df	3
	Sig.	.000

Note / Findings:

- KMO value of 0.642 is acceptable and mediocre. Factor analysis is appropriate for these data.
- Bartlett's test is highly significant ($p < 0.001$), and therefore factor analysis for these data is appropriate.

PSYCHOLOGY FACTOR ANALYSIS:

Note / Findings:

Correlation Matrix:

- All Significant Values are not greater than 0.05
- All correlation coefficients are not greater than 0.9

- Determinant Value = 0.212 (greater than necessary value of 0.00001)

Therefore, multicollinearity is not a problem for these data for these factor.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.755
Bartlett's Test of Sphericity	Approx. Chi-Square	111.526
	df	6
	Sig.	.000

Note / Findings:

- KMO value of 0.755 is good. Factor analysis is appropriate for these data.
- Bartlett's test is highly significant ($p < 0.001$), and therefore factor analysis for these data is appropriate.

4.6 NORMALITY TEST

- Hair et al. (2010) and Bryne (2010) claimed that data is considered to be normal if Skewness is between ‐ 2 to +2 and Kurtosis is between ‐ 7 to +7.
- Multi-normality data tests are performed using leveling asymmetry tests (skewness < 3), (Kurtosis between -2 and 2) and Mardia criterion (< 3). Source by Chemingui, H., & Ben lallouna, H. (2013).
- Skewness and kurtosis index were used to identify the normality of the data. The result suggested the deviation of data from normality was not severe as the value of skewness and kurtosis index were below 3 and 10 respectively (Kline, 2011). Source by Yadav, R., & Pathak, G. S. (2016).

PRODUCT FACTORS:

Descriptives

			Statistic	Std. Error
Product Factor	Mean		4.29	.070
	95% Confidence Interval for Mean	Lower Bound	4.15	
		Upper Bound	4.43	
	5% Trimmed Mean		4.33	
	Median		4.00	
	Variance		.372	
	Std. Deviation		.610	
	Minimum		3	
	Maximum		5	
	Range		2	
	Interquartile Range		1	
	Skewness		-.253	.277
	Kurtosis		-.580	.548

Note / Findings:

- Skewness and Kurtosis are within acceptable values
- Normality distributed

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Product Factor	.311	75	.000	.758	75	.000

a. Lilliefors Significance Correction

Note / Findings:

The Sig. value indicates that it is less than 0.001 (but not exactly 0), which, in turn, means that it is less than our chosen significance level of 0.01. Thus, we can regard the null hypothesis as refuted and start believing that there really is an association. A common way to state this is to say that the association between the dependent and the independent variables is statistically significant.

PRICING FACTORS:

Descriptives

			Statistic	Std. Error
Pricing Factor	Mean		3.59	.093
	95% Confidence Interval for Mean	Lower Bound	3.40	
		Upper Bound	3.77	
	5% Trimmed Mean		3.61	
	Median		4.00	
	Variance		.651	
	Std. Deviation		.807	
	Minimum		1	
	Maximum		5	
	Range		4	
	Interquartile Range		1	
	Skewness		-.686	.277
	Kurtosis		.694	.548

Note / Findings:

- Skewness and Kurtosis are within acceptable values
- Normality distributed

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pricing Factor	.309	75	.000	.838	75	.000

a. Lilliefors Significance Correction

Note / Findings:

The Sig. value indicates that it is less than 0.001 (but not exactly 0), which, in turn, means that it is less than our chosen significance level of 0.01. Thus, we can regard the null hypothesis as refuted and start believing that there really is an association. A common way to state this is to say that the association between the dependent and the independent variables is statistically significant.

TIMING FACTORS:

Descriptives

			Statistic	Std. Error
Timing Factor	Mean		4.35	.079
	95% Confidence Interval for Mean	Lower Bound	4.19	
		Upper Bound	4.50	
	5% Trimmed Mean		4.41	
	Median		4.00	
	Variance		.473	
	Std. Deviation		.688	
	Minimum		1	
	Maximum		5	
	Range		4	
	Interquartile Range		1	
	Skewness		-1.602	.277
	Kurtosis		6.165	.548

Note / Findings:

- Skewness and Kurtosis are within acceptable values
- Normality distributed

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Timing Factor	.266	75	.000	.699	75	.000

a. Lilliefors Significance Correction

Note / Findings:

The Sig. value indicates that it is less than 0.001 (but not exactly 0), which, in turn, means that it is less than our chosen significance level of 0.01. Thus, we can regard the null hypothesis as refuted and start believing that there really is an association. A common way to state this is to say that the association between the dependent and the independent variables is statistically significant.

PAYMENT FACTORS:

Descriptives

			Statistic	Std. Error
Payment Factor	Mean		4.25	.076
	95% Confidence Interval for Mean	Lower Bound	4.10	
		Upper Bound	4.41	
	5% Trimmed Mean		4.31	
	Median		4.00	
	Variance		.435	
	Std. Deviation		.660	
	Minimum		1	
	Maximum		5	
	Range		4	
	Interquartile Range		1	
	Skewness		-1.485	.277
	Kurtosis		6.742	.548

Note / Findings:

- Skewness and Kurtosis are within acceptable values
- Normality distributed

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Payment Factor	.316	75	.000	.686	75	.000

a. Lilliefors Significance Correction

Note / Findings:

The Sig. value indicates that it is less than 0.001 (but not exactly 0), which, in turn, means that it is less than our chosen significance level of 0.01. Thus, we can regard the null hypothesis as refuted and start believing that there really is an association. A common way to state this is to say that the association between the dependent and the independent variables is statistically significant.

SECURITY FACTORS:

Descriptives

			Statistic	Std. Error
Security Factor	Mean		3.04	.108
	95% Confidence Interval for Mean	Lower Bound	2.82	
		Upper Bound	3.26	
	5% Trimmed Mean		3.04	
	Median		3.00	
	Variance		.877	
	Std. Deviation		.936	
	Minimum		1	
	Maximum		5	
	Range		4	
	Interquartile Range		1	
	Skewness		-.182	.277
	Kurtosis		.194	.548

Note / Findings:

- Skewness and Kurtosis are within acceptable values
- Normality distributed

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Security Factor	.256	75	.000	.888	75	.000

a. Lilliefors Significance Correction

Note / Findings:

The Sig. value indicates that it is less than 0.001 (but not exactly 0), which, in turn, means that it is less than our chosen significance level of 0.01. Thus, we can regard the null hypothesis as refuted and start believing that there really is an association. A common way to state this is to say that the association between the dependent and the independent variables is statistically significant.

ADMINISTRATIVE FACTORS:

Descriptives

			Statistic	Std. Error
Administrative Factor	Mean		4.47	.077
	95% Confidence Interval for Mean	Lower Bound	4.31	
		Upper Bound	4.62	
	5% Trimmed Mean		4.52	
	Median		5.00	
	Variance		.441	
	Std. Deviation		.664	
	Minimum		1	
	Maximum		5	
	Range		4	

	Interquartile Range	1	
	Skewness	-2.005	.277
	Kurtosis	8.442	.548

Note / Findings:

- Skewness and Kurtosis are within acceptable values
- Normality distributed

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Administrative Factor	.309	75	.000	.647	75	.000

a. Lilliefors Significance Correction

Note / Findings:

The Sig. value indicates that it is less than 0.001 (but not exactly 0), which, in turn, means that it is less than our chosen significance level of 0.01. Thus, we can regard the null hypothesis as refuted and start believing that there really is an association. A common way to state this is to say that the association between the dependent and the independent variables is statistically significant.

PSYCHOLOGICAL FACTORS:

Descriptives

			Statistic	Std. Error
Psychological Factor	Mean		3.76	.082
	95% Confidence Interval for Mean	Lower Bound	3.60	
		Upper Bound	3.92	
	5% Trimmed Mean		3.80	
	Median		4.00	
	Variance		.509	

	Std. Deviation	.714	
	Minimum	1	
	Maximum	5	
	Range	4	
	Interquartile Range	1	
	Skewness	-1.216	.277
	Kurtosis	2.875	.548

Note / Findings:

- Skewness and Kurtosis are within acceptable values
- Normality distributed

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Psychological Factor	.378	75	.000	.748	75	.000

a. Lilliefors Significance Correction

Note / Findings:

The Sig. value indicates that it is less than 0.001 (but not exactly 0), which, in turn, means that it is less than our chosen significance level of 0.01. Thus, we can regard the null hypothesis as refuted and start believing that there really is an association. A common way to state this is to say that the association between the dependent and the independent variables is statistically significant.

4.7 ANOVA - LINEAR REGRESSION ANALYSIS

Following statements are according to statisticssolutions.com (2020) website. A regression assesses whether predictor variables account for variability in a dependent variable. This page will describe regression analysis example research questions, regression assumptions, the evaluation of the R-square (coefficient of determination), the F-test, the interpretation of the beta coefficient(s), and the regression equation.

Assumptions:

First, regression analysis is sensitive to outliers. Outliers can be identified by standardizing the scores and checking the standardized scores for absolute values higher than 3.29. Such values may be considered outliers and may need to be removed from the data.

Second, the main assumptions of regression are normality, homoscedasticity, and absence of multicollinearity. Normality can be assessed by examining a normal P-P plot. If the data form a straight line along the diagonal, then normality can be assumed. To assess homoscedasticity, the researcher can create a scatterplot of standardized residuals verses standardized predicted values. If the plot shows random scatter, the assumption is met. However, if the scatter has a cone shape, then the assumption is not met. Multicollinearity can be assessed by calculated variance inflation factors (VIFs). VIF values higher than 10 indicates that multicollinearity may be a problem.

F-test:

When the regression is conducted, an F-value, and significance level of that F-value, is computed. If the F-value is statistically significant (typically $p < .05$), the model explains a significant amount of variance in the outcome variable.

Evaluation of the R-Square:

When the regression is conducted, an R2 statistic (coefficient of determination) is

LINEAR REGRESSION ANALYSIS AFTER MODIFICATIONS

Regression

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.651[a]	.424	.364	1.124	.424	7.058	7	67	.000

Note / Findings:

As resulted in the above model summary table, the correlation coefficient value, R = 0.651 (65.1%) mentions that there is reasonable positive linking between consumers' online shopping behaviour during the COVID-19 pandemic and the product factor, pricing factor, timing factor, payment factor, security factor, administrative factor and psychological factor.

Nevertheless, 42.4% (R Square values of 0.424) variation in consumers' online shopping behaviour during the COVID-19 pandemic is accounted because of product factor, pricing factor, timing factor, payment factor, security factor, administrative factor and psychological factor.

The adjusted R^2 is 0.364 implying that the seven factors can pointedly account for 36.4% variance in the consumers' online shopping behaviour during COVID-19 pandemic.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	62.383	7	8.912	7.058	.000[b]
	Residual	84.603	67	1.263		
	Total	146.987	74			

Note / Findings:

According to Archdeacon (1994) (p. 168), F statistic of at least 3.95 is needed to reject the null hypothesis at an alpha level of 0.1. At this level, researcher stand a 1% chance of being wrong.

As resulted in the above ANOVA Table, regression analysis is attained to study the linking between product factor, pricing factor, timing factor, payment factor, security factor, administrative factor and psychological factor with consumers' online shopping behaviour during COVID-19 pandemic. Seven factors are recommended and outcomes computed in the ANOVA Table and revealed in the above Figure. F-Statistics created ($F = 7.058$) is significant at 1 percent level (sig. $f < 0.01$) with 7 and 67 degrees of freedom, therefore approving the fitness for the model.

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	5.274	1.256		4.200	.000		
	Product Factor	-1.077	.262	-.466	-4.107	.000	.667	1.499
	Pricing Factor	-.370	.235	-.212	-1.576	.120	.475	2.105
	Timing Factor	.829	.243	.405	3.419	.001	.614	1.629
	Payment Factor	-1.437	.269	-.672	-5.333	.000	.541	1.850
	Security Factor	.477	.213	.317	2.240	.028	.429	2.331
	Administrative Factor	1.201	.254	.566	4.727	.000	.599	1.671
	Psychological Factor	-.172	.252	-.087	-.682	.498	.527	1.898
a. Dependent Variable: Frequency of Online Shopping Behaviour								

Multicollinearity:

According to Tiwari, Pratiksha. (2016), VIF is the reciprocal of the tolerance value ; small VIF values indicates low correlation among variables under ideal conditions VIF<3. However it is acceptable if it is less than 10.

Based on the above results/ findings, the stated Variance inflation factors (VIFs values less than 10 indicates that multicollinearity should not be a problem and under ideal conditions since VIF<3.

Summary of Coefficients Table after Modification:

Coefficients[a]							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Impact
		B	Std. Error	Beta			
1	(Constant)	5.274	1.256		4.200	.000	
	Product Factor	-1.077	.262	-.466	-4.107	.000	**Accepted**
	Pricing Factor	-.370	.235	-.212	-1.576	.120	**Rejected**
	Timing Factor	.829	.243	.405	3.419	.001	**Accepted**
	Payment Factor	-1.437	.269	-.672	-5.333	.000	**Accepted**
	Security Factor	.477	.213	.317	2.240	.028	**Accepted**
	Administrative Factor	1.201	.254	.566	4.727	.000	**Accepted**
	Psychological Factor	-.172	.252	-.087	-.682	.498	**Rejected**
a. Dependent Variable: Online Shopping Behaviour							

Note / Findings:

Beta Coefficients:

Product Factor:

Based on the result obtained, β = -.466 at a significance level of $p < 0.05$. This shows that hypothesis 1 is accepted. The beta coefficient is negative, interprets that for every 1-unit increase in the predictor variable, the outcome variable will decrease by the beta coefficient value. For this case, the outcome variable will decrease by .466 .

Pricing Factor:

Based on the result obtained, β = -.212 at a significance level of p = .120. This shows that p-value in the result exceeded the minimally acceptable level which should be p < 0.05. Thus hypothesis 2 is rejected.

Timing Factor:

Based on the result obtained, β = .405 at a significance level of p < 0.05. This shows that hypothesis 3 is accepted. The beta coefficient is positive, the interpretation is that for every 1-unit increase in the predictor variable, the outcome variable will increase by the beta coefficient value. For this case, the outcome variable will increase by .405 .

Payment Factor:

Based on the result obtained, β = -.672 at a significance level of p < 0.05. This shows that hypothesis 4 is accepted. The beta coefficient is negative, interprets that for every 1-unit increase in the predictor variable, the outcome variable will decrease by the beta coefficient value. For this case, the outcome variable will decrease by .672 .

Security Factor:

Based on the result obtained, β = .317 at a significance level of p < 0.05. This shows that hypothesis 5 is accepted. The beta coefficient is positive, the interpretation is that for every 1-unit increase in the predictor variable, the outcome variable will increase by the beta coefficient value. For this case, the outcome variable will increase by .317 .

Administrative Factor:

Based on the result obtained, β = .566 at a significance level of p < 0.05. This shows that hypothesis 6 is accepted. The beta coefficient is positive, the interpretation is that for every 1-unit increase in the predictor variable, the outcome variable will increase by the beta coefficient value. For this case, the outcome variable will increase by .566 .

Psychological Factor:

Based on the result obtained, β = -.087 at a significance level p = .498. This shows that p-value in the result exceeded the minimally acceptable level which should be p < 0.05. Thus hypothesis 7 is rejected.

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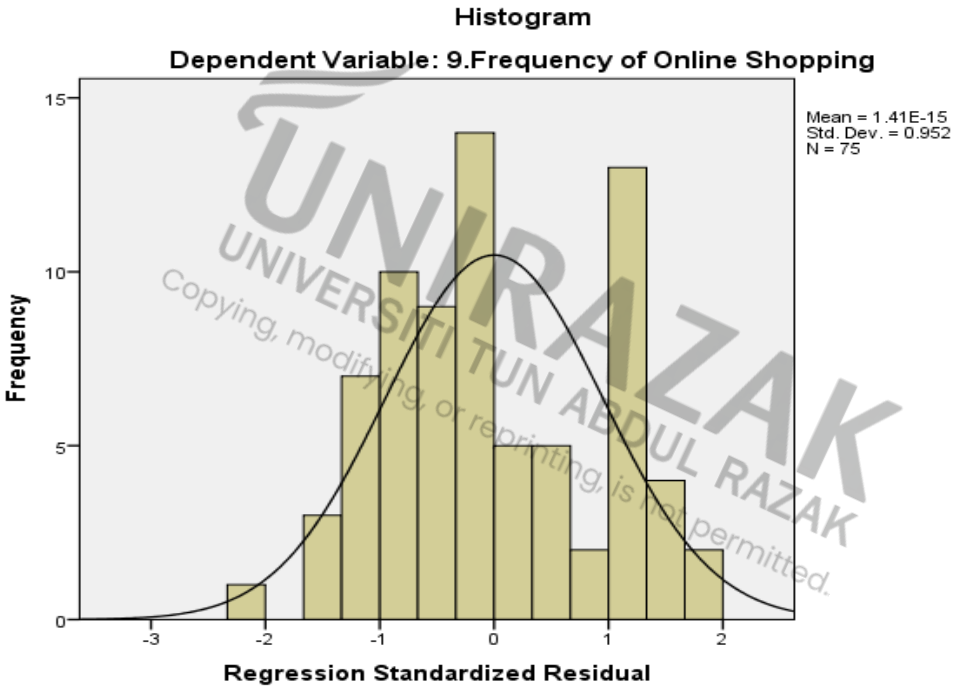
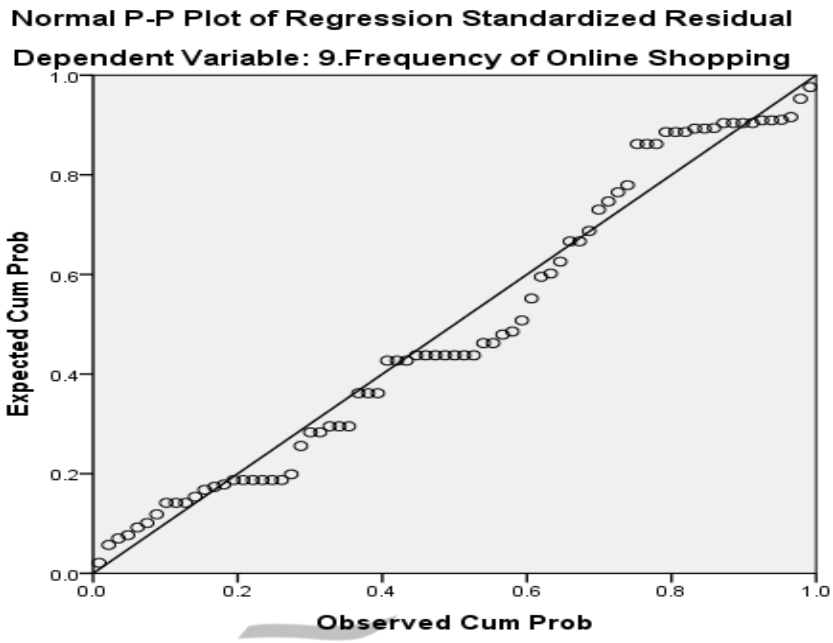
Charts

Normality:



Note / Findings:

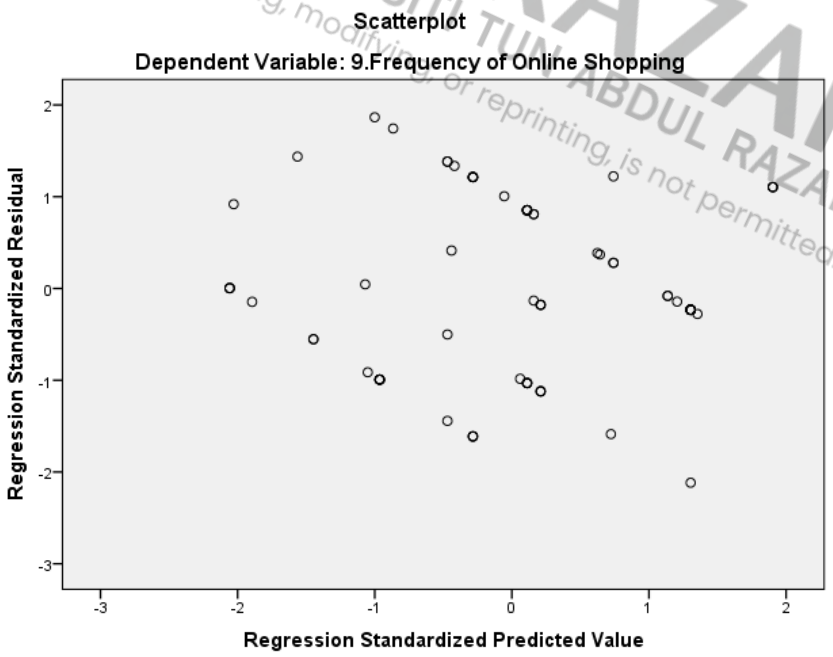
All the variables are dispersion normal within the U-Shape area.



Notes / Findings:

Data form a straight line along the diagonal, then normality assumption achieved.

Homoscedasticity:



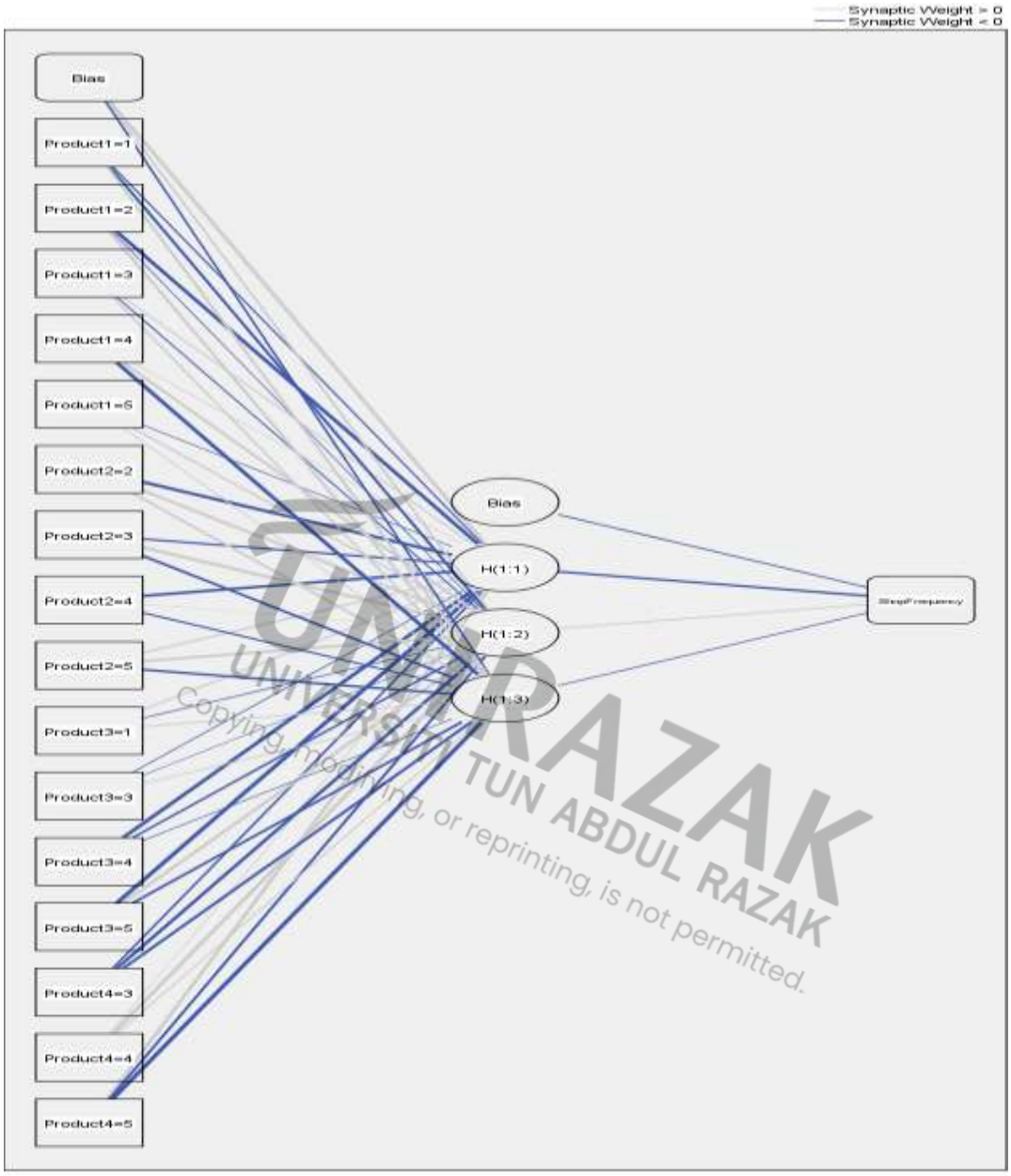
Notes/ Findings:

Plot shows random scatter, thus the assumption is met.

4.8 MULTILAYER PERCEPTRON NETWORK (MPN) ANALYSIS

According to Barron (1991), the neural networks become useful in high dimensional regression by looking for low dimensional decompositions or projections. Feed-forward neural networks with simple architecture (one or two hidden layers) can approximate any L^2 function and its derivatives with any desired accuracy (Cybenko, 1989; Hornik et al., 1990; Hornik et al., 1993). These two properties of ANN make them natural candidates for modeling multivariate data. Intrator, O. and Intrator, N. (2001) mentioned that the method allows to determine which variables have a linear effect, no effect, or nonlinear effect on the predictors. Graphical tools useful for identifying interactions, and for examination of the prediction results are presented.

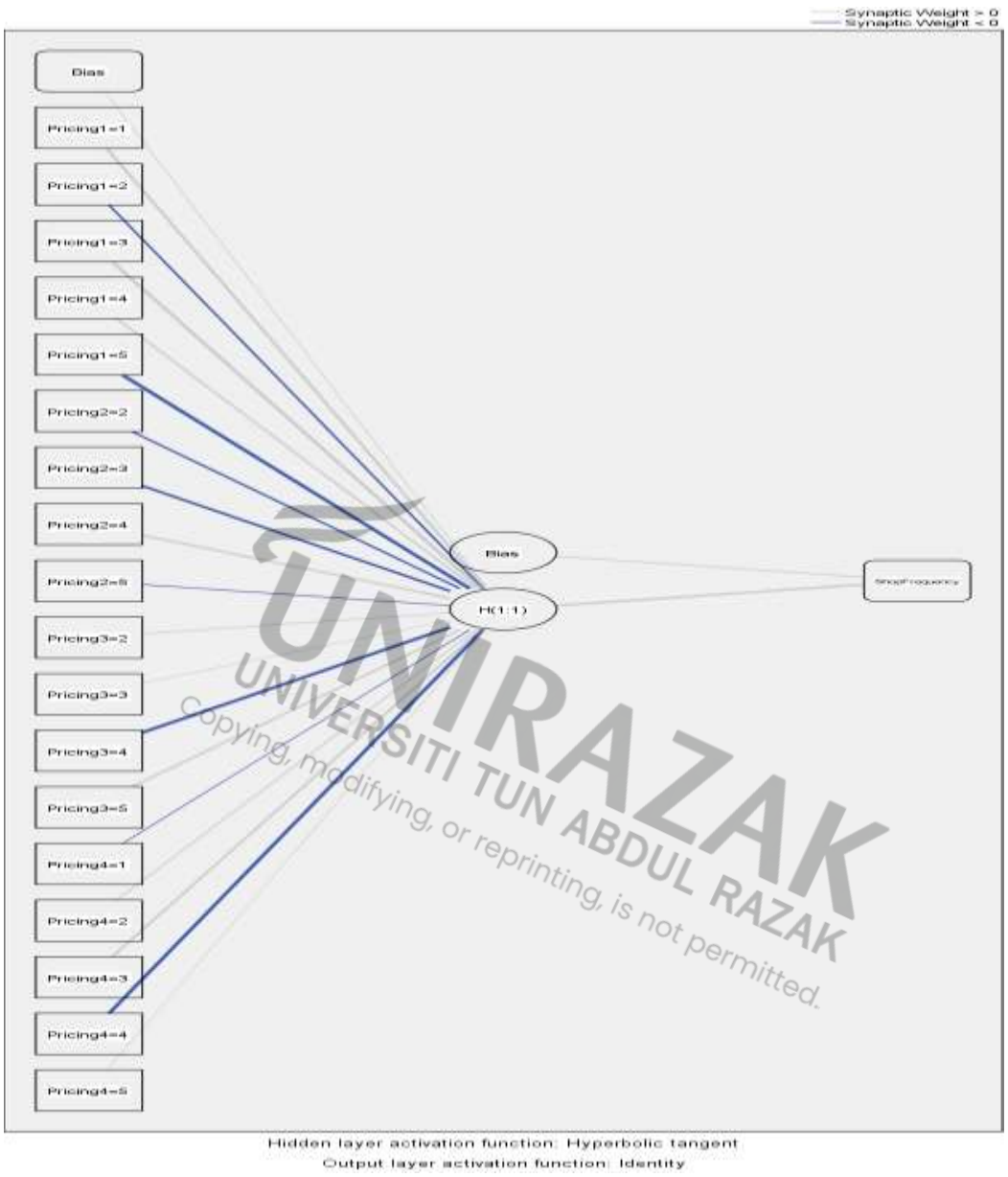
MPN ANALYSIS FOR <u>PRODUCT FACTORS:</u>



<u>Notes / Findings:</u>

The consumers' online shopping behaviour has a linear effect on the product factor

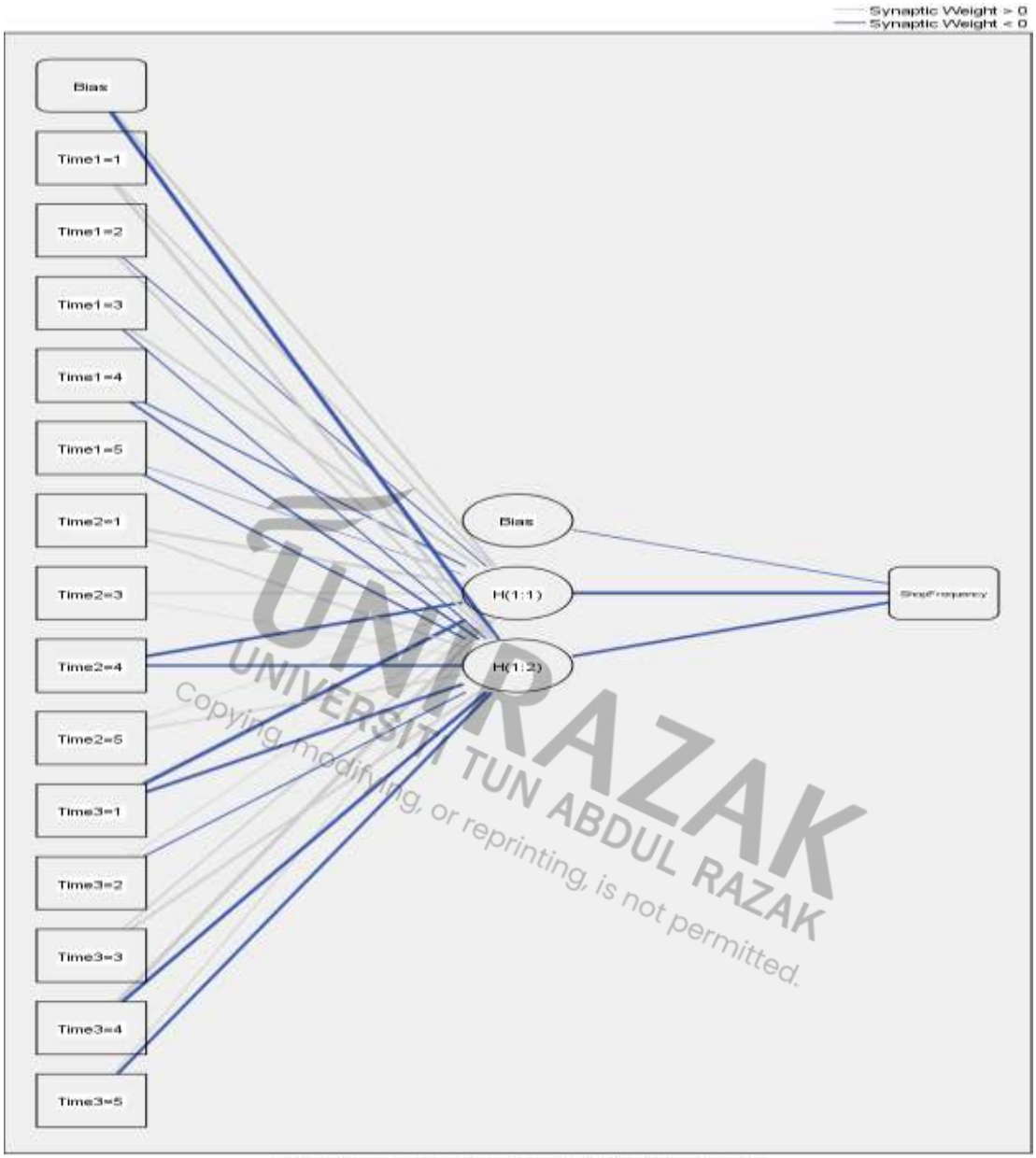
MPN ANALYSIS FOR <u>PRICING FACTORS:</u>



<u>Notes / Findings:</u>

The consumers' online shopping behaviour has no effect on the pricing factors.

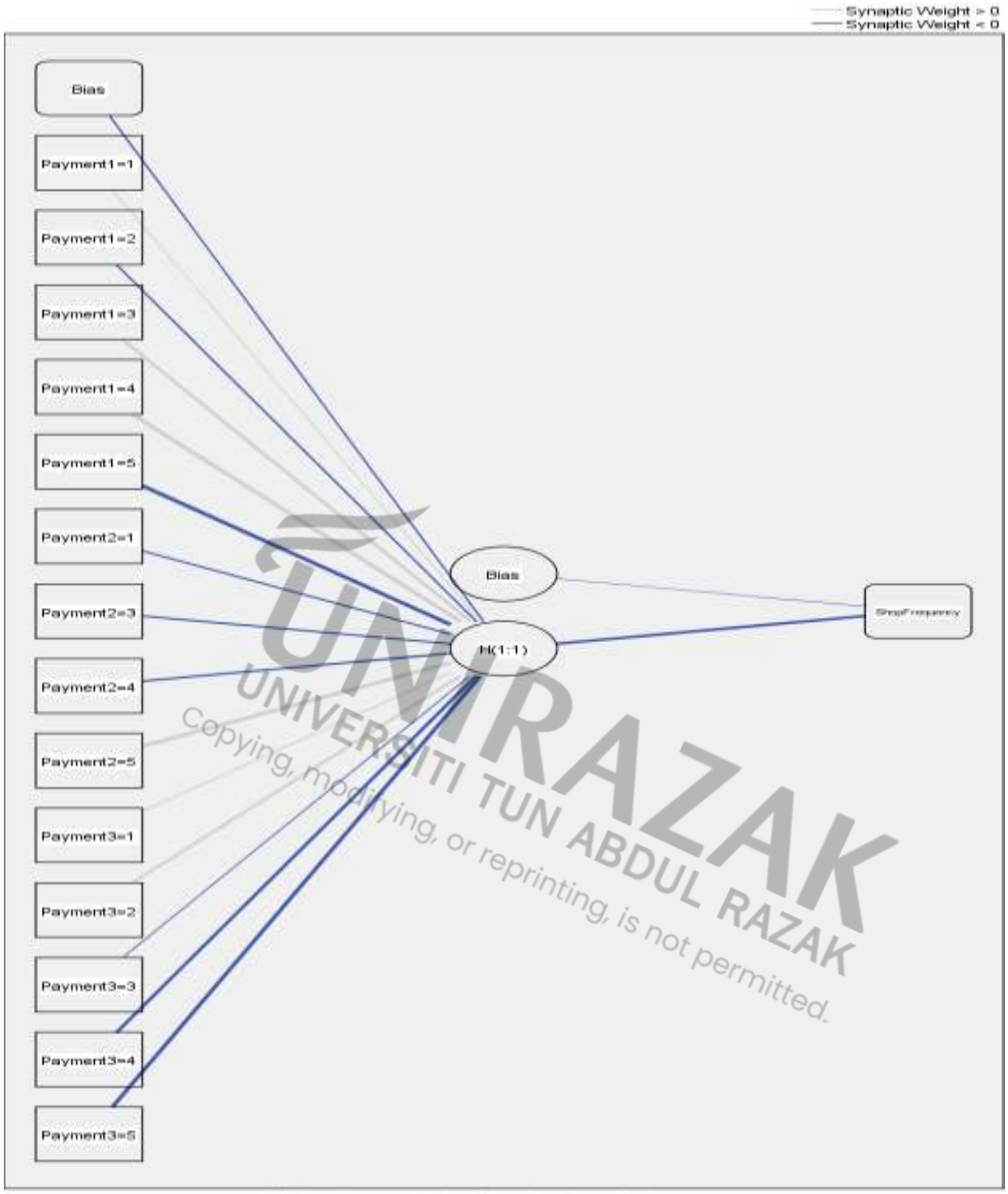
MPN ANALYSIS FOR <u>TIME FACTORS:</u>



<u>Notes / Findings:</u>

The consumers' online shopping behaviour has a linear effect on the timing factors.

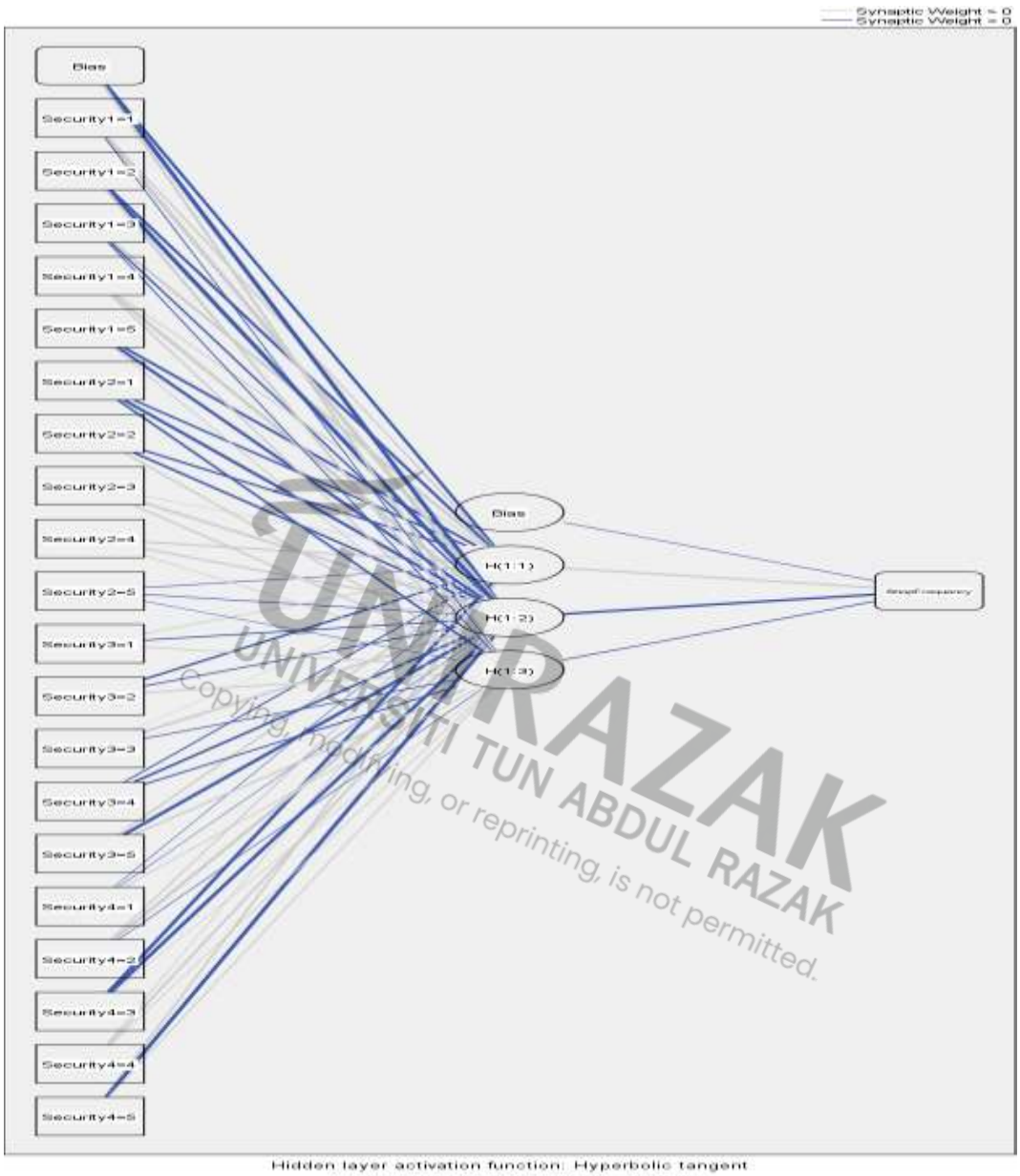
MPN ANALYSIS FOR <u>PAYMENT FACTORS:</u>



<u>Notes / Findings:</u>

The consumers' online shopping behaviour have a linear effect on the payment factor.

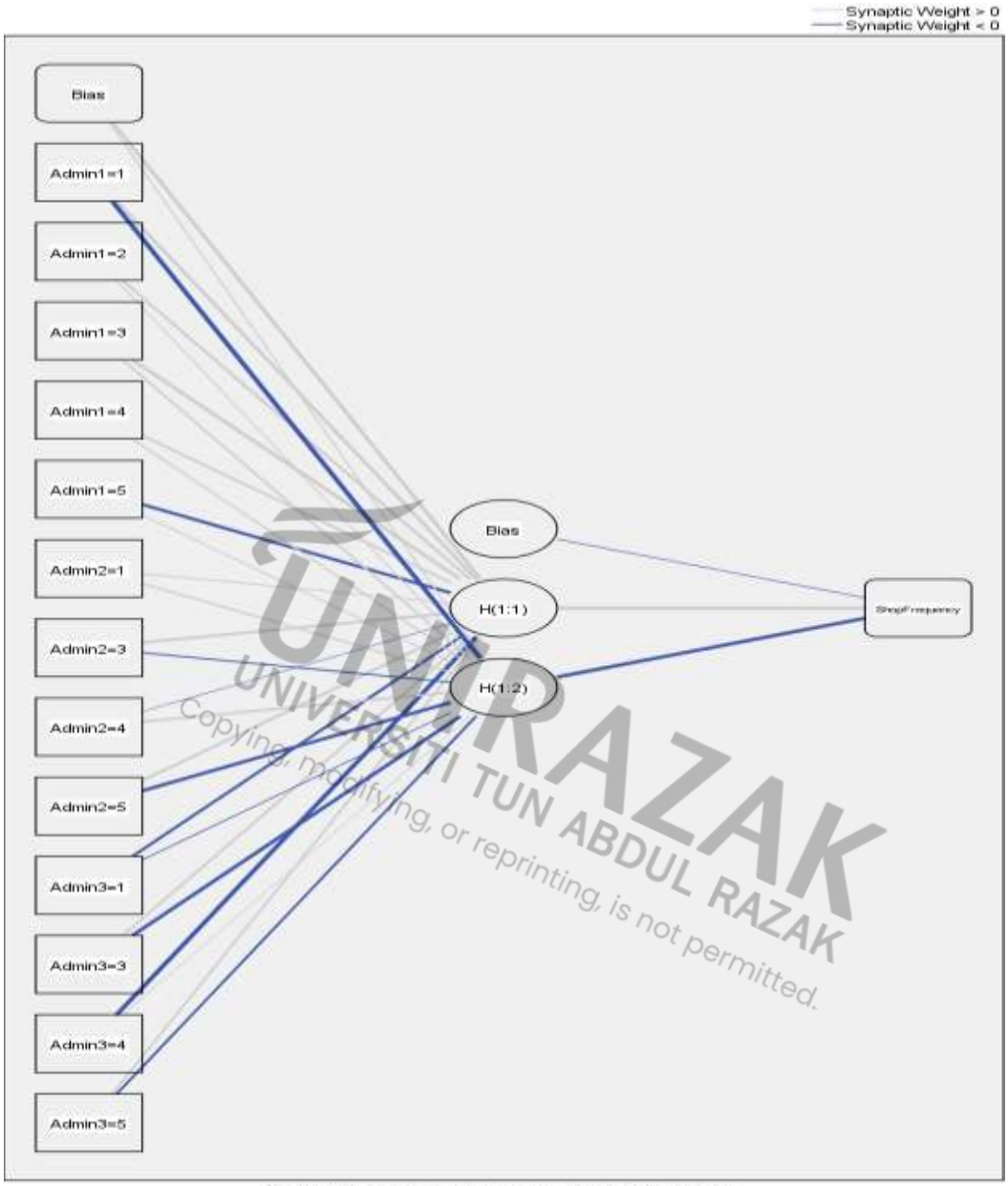
MPN ANALYSIS FOR <u>SECURITY FACTORS:</u>



<u>Notes/Findings:</u>

The consumers' online shopping behaviour has a linear effect on the security factor.

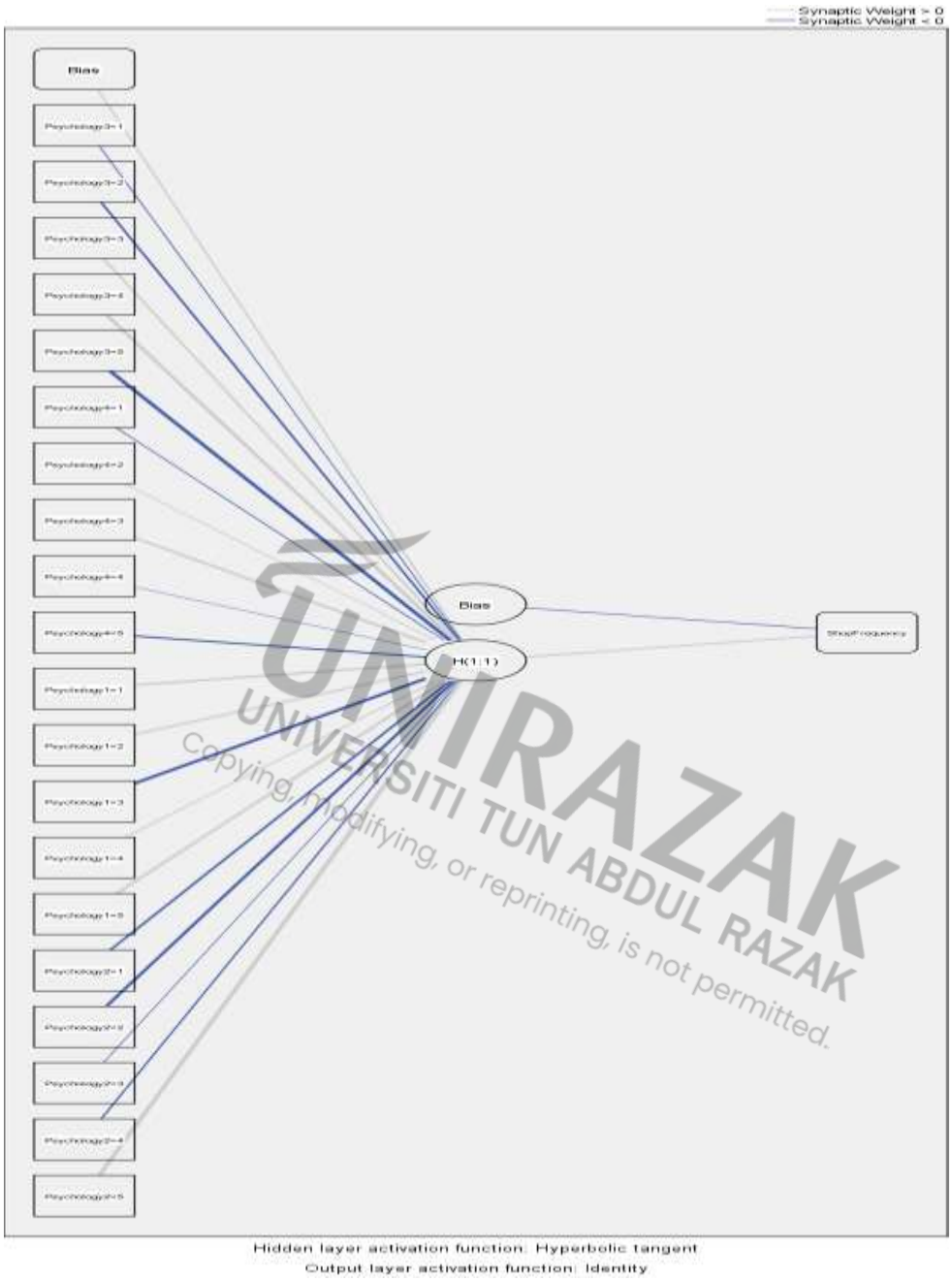
MPN ANALYSIS FOR <u>ADMINISTRATIVE FACTORS:</u>



<u>Notes / Findings:</u>

The consumers' online shopping behaviour has a linear effect on the administrative factors.

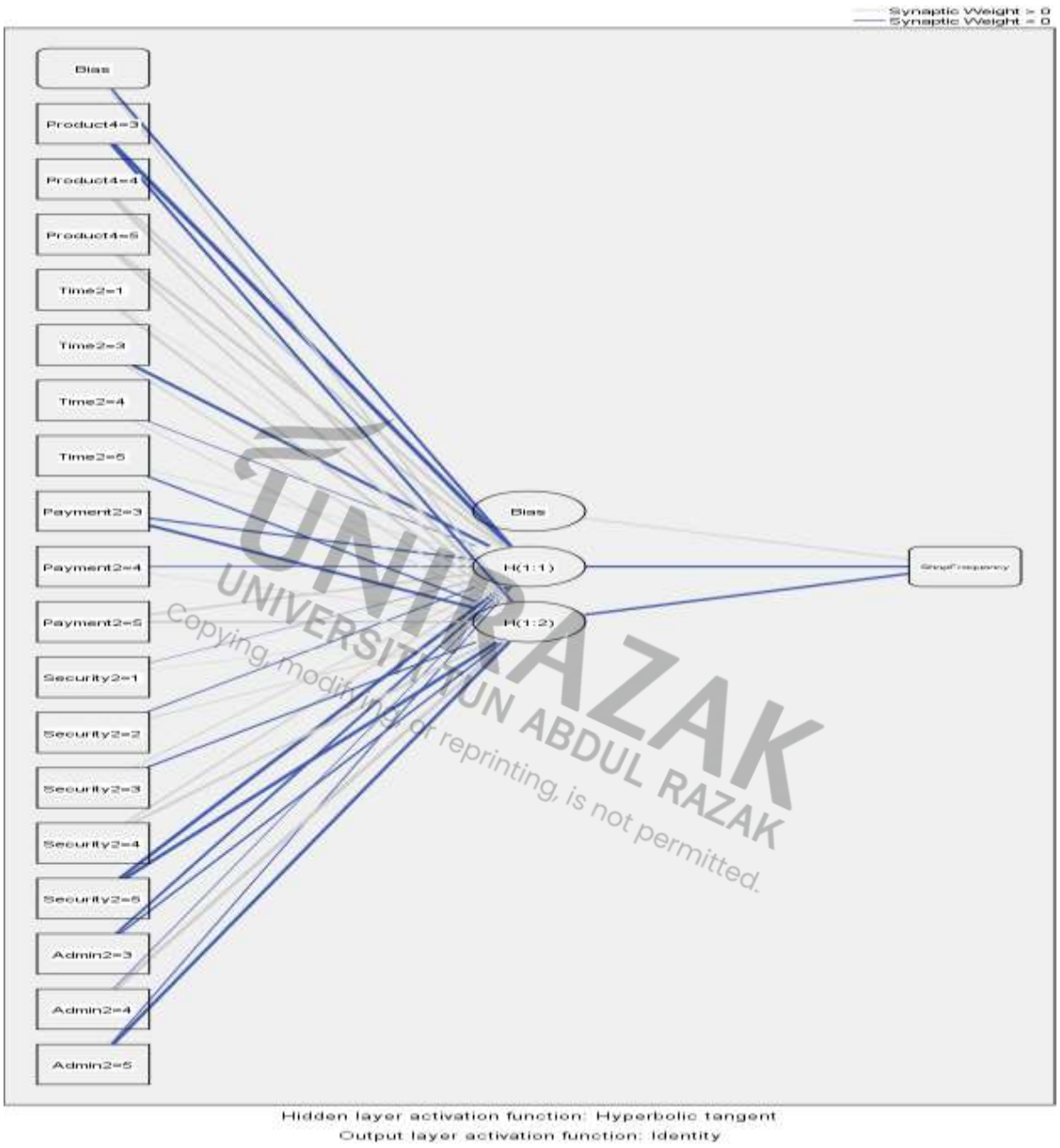
MPN ANALYSIS FOR <u>PSCYHOLOGICAL FACTORS:</u>



<u>Notes / Findings:</u>

The consumers' online shopping behaviour has no effect on the psychology factors.

SUMMARY OF MULTILAYER PERCEPTRON NETWORK ANALYSIS WITH ALL FACTORS WITH LINEAR EFFECTS RESULTS:



Summary Notes / Findings:

The Consumers' Online Shopping Behaviour during COVID-19 pandemic in Malaysia has linear effects on the Product Factor, Timing Factor, Payment Factor, Security Factor and Administrative Factor.

4.9 SUMMARY OF THE STUDY FINDINGS & OUTCOMES

Coefficients[a]							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	**Impact/ Status**
		B	Std. Error	Beta			
1	(Constant)	5.274	1.256		4.200	.000	
	Product Factor	-1.077	.262	-.466	-4.107	.000	**Accepted**
	Pricing Factor	-.370	.235	-.212	-1.576	.120	**Rejected**
	Timing Factor	.829	.243	.405	3.419	.001	**Accepted**
	Payment Factor	-1.437	.269	-.672	-5.333	.000	**Accepted**
	Security Factor	.477	.213	.317	2.240	.028	**Accepted**
	Administrative Factor	1.201	.254	.566	4.727	.000	**Accepted**
	Psychological Factor	-.172	.252	-.087	-.682	.498	**Rejected**
a. Dependent Variable: Cconsumers' online shopping behavior during COVID-19 pandemic							

Table 4.8.1: Summary Status of Findings / Outcomes

HYPOTHESIS TESTING STATEMENTS

Testing Hypothesis 1:

Hypothesis 1 states that Product factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic. Based on the result obtained, β = -.466 at a significance level of $p < 0.05$. This shows that hypothesis 1 is accepted. The beta coefficient is negative, interprets that for every 1-unit increase in the predictor variable, the outcome variable will decrease by the beta coefficient value. For this case, the outcome variable will decrease by .466 .

Testing Hypothesis 2:

Hypothesis 2 states that Price factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic. Based on the result obtained, β = -.212 at a significance level of p = .120. This shows that p-value in the result exceeded the minimally acceptable level which should be p < 0.05. Thus hypothesis 2 is rejected.

Testing Hypothesis 3:

Hypothesis 3 states that Time factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic. Based on the result obtained, β = .405 at a significance level of p < 0.05. This shows that hypothesis 3 is accepted. The beta coefficient is positive, the interpretation is that for every 1-unit increase in the predictor variable, the outcome variable will increase by the beta coefficient value. For this case, the outcome variable will increase by .405 .

Testing Hypothesis 4:

Hypothesis 4 states that Payment factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic. Based on the result obtained, β = -.672 at a significance level of p < 0.05. This shows that hypothesis 4 is accepted. The beta coefficient is negative, interprets that for every 1-unit increase in the predictor variable, the outcome variable will decrease by the beta coefficient value. For this case, the outcome variable will decrease by .672 .

Testing Hypothesis 5:

Hypothesis 5 states that Security factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic. Based on the result obtained, β = .317 at a significance level of p < 0.05. This shows that hypothesis 5 is accepted. The beta coefficient is positive, the interpretation is that for every 1-unit increase in the predictor variable, the outcome variable will

increase by the beta coefficient value. For this case, the outcome variable will increase by .317 .

Testing Hypothesis 6:

Hypothesis 6 states that Administrative factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic. Based on the result obtained, $\beta = .566$ at a significance level of $p < 0.05$. This shows that hypothesis 6 is accepted. The beta coefficient is positive, the interpretation is that for every 1-unit increase in the predictor variable, the outcome variable will increase by the beta coefficient value. For this case, the outcome variable will increase by .566 .

Testing Hypothesis 7:

Hypothesis 7 states that Psychological factor has significant relationship towards consumers' online shopping behavior during COVID-19 pandemic. Based on the result obtained, $\beta = -.087$ at a significance level $p = .498$. This shows that p-value in the result exceeded the minimally acceptable level which should be $p < 0.05$. Thus hypothesis 7 is rejected.

Summary of Hypotheses Testing Results:

Variables	Hypotheses		Status
Product Factor	1	Product factor has significant relationship towards consumers' online shopping behaviour during COVID-19 pandemic	Accepted
Pricing Factor	2	Price factor has significant relationship towards consumers' online shopping behaviour during COVID-19 pandemic	Rejected
Timing Factor	3	Time factor has significant relationship towards consumers' online shopping behaviour during COVID-19 pandemic	Accepted

Payment Factor	4	Payment factor has significant relationship towards consumers' online shopping behaviour during COVID-19 pandemic	Accepted
Security Factor	5	Security factor has significant relationship towards consumers' online shopping behaviour during COVID-19 pandemic	Accepted
Administrative Factor	6	Administrative factor has significant relationship towards consumers' online shopping behaviour during COVID-19 pandemic	Accepted
Psychological Factor	7	Psychological factor has significant relationship towards consumers' online shopping behaviour during COVID-19 pandemic	Rejected

Table 4.8.2: Hypotheses Testing Summary

MODEL:

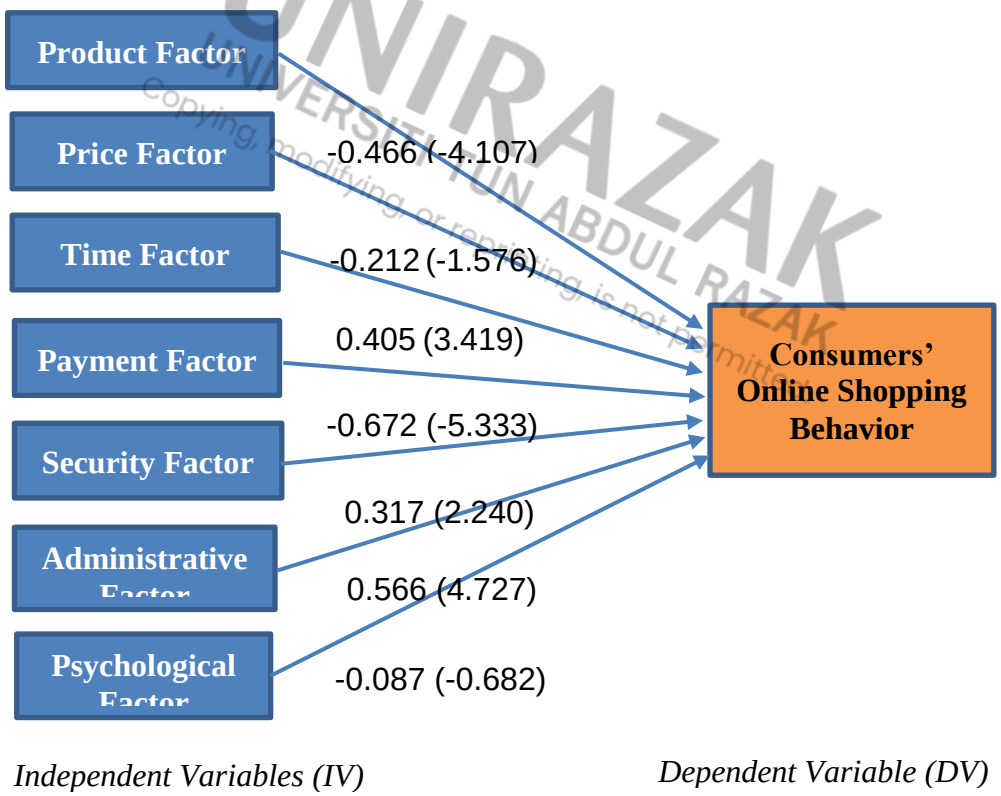


Figure 4.8: Model on Consumers' Online Shopping Behaviour during COVID-19 pandemic.

CHAPTER 5
CONCLUSION

5.1 FINDINGS

The industry of E-commerce in Malaysia is currently growing swiftly regardless of having some obstacles mainly due to internet access issue in some remote areas and it gradually becoming more competitive time by time with the support of the country's government bodies and private sectors. The E-commerce sector is not only involved or participated by local businesses but also foreign businesses who are involved in the same market competition. The attempts of this study paper is to examine the factors that have a significant impact on consumers' online shopping behavior in the Malaysia perspective.

Through to this study analysis and evidence of data given, the product, payment, time, administrative and security factors are significantly influence the consumers' online shopping behavior during the COVID-19 pandemic in Malaysia. The major finding based on the highest score obtained from this study is due to the administrative factors which majorly have significant impacts on consumers' online shopping behavior in this country. This factors are highly contributed due to the movement restrictions or recommendations by the government due to the pandemic situation which COVID-19 is a contagious type of disease. The factors comprises of online shopping to reduce the social interaction or physical contact between people to help reduce the risk of transmission of coronavirus; Shopping online allowed respondents to stay-at-home as per the government recommendation during pandemic; as well as shopping online due to the non-essentials economy and social lockdown enforcement by government during pandemic.

The product major factor include due to variety of products sold or offered in online shopping websites which significantly influence the consumers' online

shopping behavior during COVID-19 pandemic. The payment major factor include due to online shopping provides reasonable delivery charges during pandemic which significantly influence the consumers' online shopping behavior during COVID-19 pandemic. The time major factor include due to online shopping which offers possibility of 24 hours, 7 days of shopping, with no shopping time limit which significantly influence the consumers' online shopping behavior during COVID-19 pandemic. While the security factor include due to the risk of the loss of privacy is minimal when purchasing online which significantly influence the consumers' online shopping behavior during COVID-19 pandemic. Thus the product, payment, time, administrative and security factors are overall the important factors which all are significantly affect and attract consumers' online shopping decision in Malaysia during COVID-19 pandemic.

There are a variety of products sold or offered in vast worldwide shopping websites which can be reached via online shopping. The shopping websites aids to lessen the consumers' time for shopping and allow the consumers to acquire as many information related to the products or services adequately and promptly as well as can compare with other companies' prices for similar products or services they are looking for to buy. The online shopping via the internet offers possibility of 24hours, 7days of shopping, no shopping time limit compare to brick and mortar or physical businesses shopping visit. The E-commerce industry give emphasis to getting into the business countryside especially rural and remote areas of Malaysia not only focus in the own areas as per traditional shopping method with the help of efficient delivery services partners. In addition, online shopping offer convenient online payment using various online payment channels such as debit and credits cards or accounts. Recently, some of E-commerce websites such as Shopee offer "SPayLater" program to its loyal customers which allow consumers to have financial online credit facilities or use installment plan to shop through Shopee websites (Shopee, 2021). This a part of payment factor that attract consumers to shop online. Due to COVID-19 pandemic, shopping online allowed consumers to stay-at-home as per the

government recommendation or instructions during pandemic in order to help the country to lessen the daily COVID-19 cases at the same time to evade the transmission of the disease through human contacts.

5.2 LIMITATIONS

The findings and outcomes of this study probably cannot be concluded as the main or general factors which influence the consumers' online shopping behaviour during COVID-19 pandemic. The small number of 75 survey participants for this study only cover small district or area which are far enough to cover the actual population of online shopping consumers in Selangor or even the whole for this country. Due to pandemic situation, researcher has very limited opportunities to gather as many numbers of consumers which only allow researcher to perform survey through online method which is through Google online form which distributed through online media social facilities such as Facebook and Whatapps group. The restrictions to travel imposed by the government through the numbers movement control orders limit researcher's movement not only to reach targeted participants for survey test but also not allow researcher to plan face to face meeting with researcher's project supervisor, Dr Azrul Fazwan to get his advices, relevant supports or ideas as usual or as needed. Researcher has to made decision to modify research background due to the pandemic restrictions. In addition, unstable emotions and anxiety in facing this pandemic are truly challenges sometimes give negative impacts to researcher performance and ability for this study proposal preparations, progress and submission. Due to the above limitations, therefore this study outcomes only can be gauged as part of finding and discovery that need more study to proof it validity and reliability or to widen the study scopes majorly on the factors' analysis in the future.

5.3 CONCLUSION & RECOMMENDATIONS

The E-commerce industry should to more emphasize to get into the business countryside especially rural and remote areas of Malaysia. This study also proposes that E-commerce platforms have to guarantee the consumers' privacy and security, and protect the consumers' data from violence, data breach issues and/or being cheated mainly on the scammer businesses. Consumers have fear or worry of online transactions and buying process, because the E-commerce platform failed to ensure the proper security, trust, and confidence of the consumers. Thus a special policy for this online shopping market should be developed or improved with the government intervention.Companies or businesses can guarantee fast and safe delivery throughout the country in order to entice more consumers towards purchasing online through E-commerce market. If E-commerce can come across the challenges, consumers can be more profited and helped, thus they select the channel.

Thus, consumers' inclination towards online purchases through the E-commerce will be improved and it will be more established in Malaysia in helping the Malaysia country economic sector. Regardless of facing issues related to the E-commerce problem or interference, the E-commerce industry has the good chances and opportunities to put an impactful contribution to the Malaysia's GDP and lead the future E-economy of Malaysia.

The government of country should take appropriate actions to improve and upgrade the E-commerce industry and its relevant facilities mainly on the internet access facilities throughout the country as well as supports to the relevant business owners mainly the small and medium enterprises (SMEs) to actively take part into this sector as this group has been said to face major losses during this pandemic. When looked with the start of COVID-19, the E-commerce industry is observing an irregular increase locally and internationally however with the current economic is heading into a predictable global recession, the

development of the industry is expected to slow down including in this country due to various factors mainly due to the reduction of costs or spending among consumers in response to economic difficulty.

The growing market at the present observing the lively expansion of online shopping through the usage of internet and digital technology development. This research studies the factors influencing consumers' online shopping behavior during the coronavirus disease (COVID-19) pandemic in Malaysia as part of developed countries in the South East Asia region. The present study evaluates the impact of seven factors which are product factor, price factor, time saving factor, payment factor, security factor, administrative factor and psychological factor on consumers' online shopping behavior during the coronavirus disease (COVID-19) pandemic in this country. The findings and outcomes of the study prove that product factor, time factor, payment factor, security factor and administrative factor have a positive or significant connection with the consumers' online shopping behavior during the coronavirus disease (COVID-19) pandemic in the context of Malaysia country.

The study is only limited as per the data and analysis given which focuses in Malaysia country during the coronavirus disease (COVID-19) pandemic. The result may be not applied to other country, and other duration like post-pandemic circumstances or other situation which not related to this time of current pandemic. The data may not be the actual representative of overall Malaysia consumers' view due to sample size like only 75 respondents. Further research is instructed to improve the generalizability of the sampling by extending the sample size. The study found few influences of the independent variables, which are product factor, price factor, time saving factor, payment factor, security factor, administrative factor and psychological factor.

So there may be some other variables or factors which may affect consumers' online shopping behavior during the coronavirus disease (COVID-19) in Malaysia that can be found and studied for example Gender Differences Factor, Personal Factors, Motivation Factors or other specific demographic factors that can be further analyzed or to be proved.

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APPENDICES

APPENDIX A – QUESTIONNAIRE

INFORMATION SHEET FOR QUESTIONAIRE

MASTER OF BUSINESS ADMINISTRATION (MBA) PROGRAMME

THE FACTORS AFFECTING CONSUMERS' ONLINE SHOPPING BEHAVIOR DURING THE COVID-19 PANDEMIC IN MALAYSIA

PREPARED BY NORSURIATI ISMAIL

My name is Norsuriati binti Ismail, a student in the MBA programme at Graduate School of Business, Universiti Tun Abdul Razak (UNIRAZAK).

I am working on my research paper to study the factors affecting consumers' online shopping behaviour during Covid-19 pandemic in Malaysia. Research data will be collected through the questionnaire.

I appreciate your collaboration to validate the survey instrument that will be used on the research. Your participation in validating the questionnaire is voluntary. You can decide to not participate without any penalty. The risk of participating on this evaluation is very minimal and all responses will be kept confidential.

I thank you for your cooperation and interest in this study.

Respectfully,
Norsuriati binti Ismail
MBA Candidate
UNIRAZAK Graduate School of Business

SECTION A

MASTER OF BUSINESS ADMINISTRATION (MBA) PROGRAMME

THE FACTORS AFFECTING CONSUMERS' ONLINE SHOPPING BEHAVIOR DURING THE COVID-19 PANDEMIC IN MALAYSIA

PREPARED BY NORSURIATI ISMAIL

Item No.	Description	Answer
1	Gender	○ Female ○ Male
2	Age	○ Below 16 ○ 16-30 ○ 31-45 ○ 46-60 ○ 61 and above
3.	Race	○ Malay ○ Chinese ○ Indian ○ Others…….
4	Nationality	○ Malaysian ○ Non-Malaysian
5	Marital Status	○ Single ○ Married ○ Separated ○ Divorce
6	Educational level	○ Secondary or below ○ Certificate/Diploma ○ Bachelor's degree/Higher Diploma ○ Masters/ PhD degree ○ Others……

7	Employment Status	○ Full time employee ○ Part time employee ○ Student ○ Self-employed ○ Not employed ○ Others…….
8	Monthly Income	○ Below RM1,200 ○ RM1,200 to RM2,500 ○ RM2,500 to RM4,900 ○ RM4,901 to RM10,900 ○ Above RM10,900 ○ No Income ○ Others
9	Frequency of online shopping	○ Everyday ○ Every week ○ Every two weeks ○ Every month ○ As needed/if necessary ○ Rarely/Seldom
10	Shopping Items (can tick one or more item)	Check all that apply. ○ Household products ○ Fashion products ○ Hair, Skin and/or Cosmetics ○ Medical products ○ Educational products ○ Gadget/Electronic/Electric ○ Entertainment ○ Groceries/Foods ○ Other……..

SECTION B

MASTER OF BUSINESS ADMINISTRATION (MBA) PROGRAMME

THE FACTORS AFFECTING CONSUMERS' ONLINE SHOPPING BEHAVIOR DURING THE COVID-19 PANDEMIC IN MALAYSIA

PREPARED BY NORSURIATI ISMAIL

Item No.	Statement Research Variables	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
PRODUCT FACTOR						
1	The product purchased online are the same quality as the product purhased in a physical store *(Produk yang dibeli dalam talian adalah sama kualiti dengan produk yang dibeli di kedai fizikal)*					
2	Information and feature of products are clear with extensive description on websites *(Terdapat maklumat,keterangan dan ciri produk yang jelas di laman web jualan)*					
3	Easy to choose and buy my preferred products' brand *(Mudah memilih dan membeli jenama produk pilihan saya)*					
4	There are a variety of products offered in shopping websites *(Terdapat pelbagai jenis produk yang ditawarkan/dijual di laman web membeli-belah)*					

Item No.	Statement Research Variables	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
PRICE FACTOR						
5	Online shopping saves money in comparison to traditional shopping *(Membeli-belah dalam talian menjimatkan wang berbanding dengan membeli-belah tradisional)*					
6	Online shopping is cheaper than traditional shopping *(Membeli-belah dalam talian lebih murah daripada membeli-belah tradisional)*					
7	Online shopping provides reasonable delivery charges *(Membeli-belah dalam talian memberikan caj penghantaran yang berpatutan)*					
8	Online shopping significantly reduce expenses per transaction compared to traditional shopping *(Membeli-belah dalam talian dapat mengurangkan perbelanjaan setiap belian transaksi dengan ketara berbanding dengan membeli-belah tradisional)*					
TIME FACTOR						
9	Online shopping saves time to purchase *(Membeli-belah dalam talian menjimatkan masa untuk membeli)*					

Item No.	Statement Research Variables	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10	Online shopping offers possibility of 24hours, 7days of shopping or no shopping time limit *(Membeli-belah dalam talian menawarkan kemungkinan masa membeli belah selama 24 jam, 7 hari tanpa had masa)*					
	Less time in evaluating and selecting product during online shopping *(Kurang masa yang diperlukan dalam menilai dan memilih produk semasa membeli-belah dalam talian)*					
PAYMENT FACTOR						
11	Online shopping offer convenient cash on delivery (COD) option *(Membeli-belah dalam talian menawarkan pilihan mudah bayaran secara tunai semasa penghantaran (COD)*					
12	Online shopping offer convenient online payment using various online payment channels *(Belanja dalam talian menawarkan pembayaran dalam talian yang mudah menggunakan pelbagai saluran pembayaran dalam talian)*					
13	Online financial transaction is safe and controlled during online shopping *(Urus niaga kewangan dalam talian adalah selamat dan terkawal semasa membeli-belah dalam talian)*					

Item No.	Statement Research Variables	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
SECURITY FACTOR						
	When purchase online, there is the risk of identity theft or purchasing fraud *(Semasa membeli secara dalam talian, terdapat risiko kecurian identiti atau penipuan pembelian)*					
	When purchasing online, there is a risk of the loss of privacy *(Semasa membeli secara dalam talian, ada risiko kehilangan privasi)*					
	While purchasing online, I hesitate to provide my credit/debit card number *(Semasa membeli secara dalam talian, saya teragak-agak untuk memberikan nombor kad kredit / debit saya)*					
ADMINISTRATIVE FACTOR						
	Shopping online is the best practise to social distancing during pandemic *(membeli-belah dalam talian adalah amalan terbaik menjauhkan diri semasa wabak)*					
	Shopping online allow me to stay-at-home during pandemic *(Membeli-belah dalam talian membolehkan saya tinggal di rumah semasa wabak)*					
	Shopping online due to the lockdown enforcement by the government during the pandemic *(Membeli-belah dalam talian kerana penguatkuasaan penutupan oleh pemerintah semasa wabak tersebut)*					

Item No.	Statement Research Variables	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
PSYCHOLOGICAL FACTOR						
	Shopping online is my pastime during the pandemic *(Membeli-belah dalam talian adalah hobi saya semasa wabak)*					
	Online shopping give me peace, hassle and worry free of mind during pandemic *(Membeli-belah dalam talian memberi saya ketenangan, tanpa rasa rumit dan bimbang semasa wabak)*					
	I feel happy, excited, and enjoy while shopping online during pandemic *(Saya berasa gembira, teruja, dan seronok ketika membeli-belah dalam talian ketika wabak)*					
	I feel satisfied when shopping online *(Saya berasa puas ketika membeli-belah dalam talian)*					

APPROVAL PAGE

TITLE OF PROJECT PAPER : THE FACTORS AFFECTING CONSUMERS' ONLINE SHOPPING BEHAVIOR DURING THE COVID-19 PANDEMIC: THE MALAYSIA PERSPECTIVE

NAME OF AUTHOR : NORSURIATI BINTI ISMAIL

The undersigned is pleased to certify that the above candidate has fulfilled the condition of the project paper prepared in partial fulfilment for the award of the degree of Master of Business Administration.

SUPERVISOR

Signature : _____

Name :

Date :

ENDORSED BY:

_____

Dean

Graduate School of Business

Date: