CONSUMER BEHAVIOUR TOWARDS MOBILE
ADVERTISING DURING NATIONAL RECOVERY
PLAN

WONG SHI HUI

BACHELOR OF INTERNATIONAL BUSINESS
(HONOURS)

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ACCOUNTANCY AND MANAGEMENT
DEPARTMENT OF INTERNATIONAL BUSINESS

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BY

WONG SHI HUI

A final year project submitted in partial fulfilment of the requirement for the degree of

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DECLARATION

I hereby declare that:

(1)   This undergraduate FYP is the end result of my own work and that due
       acknowledgement has been given in the references to ALL sources of
       information be they printed, electronic, or personal.

(2)   No portion of this FYP has been submitted in support of any application for
       any other degree or qualification of this or any other university, or other
       institutes of learning.

(3)   Sole contribution has been made by me in completing the FYP.

(4)   The word count of this research report is 15959.

Name of student	Student ID	Signature
Wong Shi Hui	1801800	

Date: 29th April 2022

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DEDICATION

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This project is also dedicated to my beloved family for always standing by my side and providing me with a great environment to carry out this study. Lastly, I dedicate this work to my beloved friend, Lan, for accompanying me and giving me motivation when I was in a slump.

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LIST OF ABBREVIATIONS

NRP   National Recovery Plan

PUR   Purchase

SOR   Stimulus-Organism-Response

SMS   Short Message Service

MMS   Multimedia Messaging Service

SME   Small and Mid-size Enterprises

TRA   Theory of Reasoned Action

MCO   Movement Control Order

FMCO   Full Movement Control Order (FMCO)

SOP   Standard Operating Procedures

UI   User Interface

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PREFACE

Due to the outbreak of Covid-19, Malaysia has been suffering from economy downturn. Therefore, on 15th June 2021, Malaysia Government has announced National Recovery Plan to exit the economy crisis, by implementing four phases to different states in Malaysia. The government offers incentives during the National Recovery Plan which tries to move Malaysia into a digital society. As a result, mobile advertising acts as an important role to digitalization because it is able to approach consumers and thus communicate with them. There is no doubt that the plans and incentives implemented by the government will affect consumers' behaviour. This is because the consumers have shifted their behaviour as the pandemic made a huge changed to the normal lifestyle. People no longer behave like the old times. Hence, the researcher would like to investigate on the factors that affecting consumers' behaviour towards mobile advertising during National Recovery Plan. Besides, the researcher also would like to identify on the factors that giving significance impact on the effectiveness of mobile advertising which would influence consumer purchase intention and thus shape the consumer behaviour.

ABSTRACT

This study attempts to identify the factors affecting the effectiveness of mobile advertising on consumers' purchase intention. Besides, the present research also aims to develop a research model based on the S-O-R model that could identify the factors that influence the effectiveness of mobile advertising. The last objective to achieve is to analyse the factors used in the proposed research framework.

Therefore, Stimulus-Organism-Response (SOR) Model and Theory of Reasoned Action (TRA) have been used to accomplish the three objectives. There are nine variables investigated in the research framework and eight hypotheses have been established. Among the nine variables, seven of them are independent variables which are attractiveness, trustworthiness, expertise, social presence, user interface, product price, and product usefulness. Then, one of the variables is the mediator, consumers' purchase intention and the dependent variable, consumer buying behaviour. Primary data collection is applied by distributing 200 questionnaires to respondents in Malaysia. Besides, IBM SPSS Statistics is used to analyse on the data collected and the results are presented in table form.

Lastly, the implications, limitations and suggestions are being discussed in the final chapter. This research is contributing theoretically to the scholar and future research, and contributing to the industry players. However, this study is lack of investigation on consumers in different phases and sampling bias occurs. There are suggestions recommended to the future researchers on relevant topics.

CHAPTER 1: INTRODUCTION

1.0 Introduction

In this research paper, consumer behaviours towards mobile advertising are being studied so that it could help businesses and marketers to understand more about consumers' purchase patterns. Anyhow, this type of study had been carried out by many researchers; therefore, national recovery plan is also being investigated in this research as it is a very new program that implemented by Malaysia government after the outbreak of pandemic. COVID-19 pandemic has changed the entire world including people's lifestyle and transformed consumer behaviour into uncertainty. Hence, it is worth investigating consumers' behaviours towards mobile advertising during the national recovery plan. It is hoped that this study will be able to help businesses and marketers in making business decisions during these periods.

1.1 Research Background

Due to the outbreak of Covid-19 pandemic, the economic in Malaysia is experiencing downturn since the beginning of year 2020. It has caused a severe impact on Malaysia's economy and the people are suffering from the economy crisis. Hence, the former Prime Minister of Malaysia, Tan Sri Muhyiddin Yassin, announced a National Recovery Plan (NRP) that included four-phases on 15th June 2021. The main threshold indicators for the four phases are the Covid-19 infection rate, capacity of the public healthcare system, and vaccination rate (Tan, 2021). The national recovery plan was established mainly to protect public health, reopen society and economy, and to exit the crisis occurred. Therefore, Malaysia government has been offering incentives in response to COVID-19. For instance, government has allocated RM300 million for the ebelia program which each eligible Malaysian can claim e-wallet credit of RM150. It is obvious that government is trying to moving Malaysia into a

digital society which would affect the mobile advertising. This is because to adopt digitalization, mobile advertising is significant to be involved in the digital transformation. Mobile advertising is a method for marketers to approach customers on mobile devices with information on the products and services that include strategies like text message, banner ads and ads in applications (Hendricks, n.d.).It is shown that mobile advertising acts as an effective way of communication with customers and was created for mobile devices such as smartphones, tablets, and wearable devices. In comparison with traditional advertising methods like newspapers and magazines, mobile advertising is more convenience to both sellers and consumers. For instance, it can connect with people in real time settings, it only needs little information to be effective and it enables immediate user replies (Gaille, 2018). When the states are moving from phase to phase, the attitude of consumers might change due to the differences of restrictions. The meaning of consumers' buying behaviours is the study of consumers and the way they behave while deciding to purchase a product that fulfills their needs ("What Is Consumer Behaviour and Why is it important?", n.d.). Therefore, the implementation of National Recovery Plan could affect consumers' behaviours towards mobile advertising.

1.2 Problem Statement

The high usage of mobile phones has led to the high usage of mobile device to convey advertisements for products and services (Tsang et al., 2004). Nowadays, Mobile advertising had now become one of the most effective ways to approach to potential customers. In comparison with other ways of advertising, mobile advertising is able to optimize the ads to fit in a smaller display screen and is able to filter out to reach potential customers. The higher rate of consumers facing the exposure of advertisement, the higher the curiosity to know more about the product or service brand and its benefits (Jalali Naini et al., 2012). The meaning of advertising effectiveness is the consumers' liking of commercials resulting in purchase (PUR) behaviour (Rimoldi, 2008). Mehta (2000) claims that advertising effectiveness is

determined by many aspects such as choice of media and consumer's involvement with the media. Hence, the factors that affect the effectiveness of mobile advertising are being investigated in this study to determine the consumers' purchase intention. According to Sheth (2020), consumer behaviour has been significantly disrupted due to lockdown and social distance used to prevent the spread of virus. This means that they no longer behave like in the past time. Hence, due to the new lifestyle that cause by outbreak of pandemic, the consumers' behaviour have changed and might be very different from the old times. Taking the epemula as an example, government launched RM300mil to encourage cashless transaction for youths, therefore, there are some e-wallets company participating such as BigPay, Grab, ShopeePay and Touch 'n Go eWallet. The e-wallet companies are putting effort to attract recipients to use their own application; hence, they will then provide various of vouchers to attract people's attention by making mobile advertisement. As a result, it can be clearly seen that the implementation of national recovery plan could be changing the consumers' behaviour towards mobile advertising. This issue is also being discussed in this research paper as the consumers' behaviour is uncertain.

1.3   Research Questions

There are a few questions to be discussed and are aiming to be solved throughout this research paper:

- What are the factors affecting the effectiveness of mobile advertising on consumers' purchase intentions?
- Which research model could identify the factors that influence the effectiveness of mobile advertising?
- How does the effectiveness of mobile advertising affect consumers' purchase intentions?

1.4 Research Objectives

The main objective is to study the factors that affecting the effectiveness of mobile advertising in the customers' purchase intentions which lead to the consumers' behaviour during the implementation of the National Recovery Plan. The objectives can be further discussed as follows:

- To identify the factors affecting the effectiveness of mobile advertising on consumers' purchase intentions
- To develop a research model based on the S-O-R model that could identify the factors that influence the effectiveness of mobile advertising
- To analyse the factors used in the proposed research model

1.5 Scope of Study

This research is designed to study the consumers' behaviour during the National Recovery Plan; hence, the scope limits to 200 respondents from different states in Malaysia only. Besides that, the study involves respondents owning a smartphone or tablet, so that it is easier to filter out responses that do not conform to the purpose of this research. Further, the mobile advertising involves advertising via website, social media, email, SMS and MMS. Website and email are included in this study as mobile advertising because the advertisers are sending the promotional message to recipients through the mobile devices; therefore, they are two common methods that are used by the advertisers. The platform of social media is restricted to Facebook, Instagram and YouTube only. Apart from this, the study covers all the four phases of the National Recovery Plan to better explore into this new change for Malaysian consumers.

1.6 Significance of Study

Previously, many researches have investigated consumers' behaviour that could assist other parties. However, most of the papers were conducted before the outbreak of pandemic. There are less papers discussing on the effect of National Recovery Plan on consumers behaviour. Hence, this research paper is able to contribute to various parties.

This research may act as reference for scholars and researchers with sources of knowledge and expert support networks. Therefore, this research may contribute to the education system. The new area of economic recovery session that is happening now could be a trending topic for the future researchers to investigate. The findings of this research are able to contribute to the researches that are doing relevant studies and provide them a source of reference. Plus, data interpreted in this paper may act as supporting materials to visualize the scenario and thus help future studies.

In addition, this research paper could assist on the economics in Malaysia during this tough time. This is due to the new changes nowadays have switched the old lifestyle of people, which lead to huge challenges for businesses. Many businesses could not survive under these changed as a result of lack of understanding towards consumer purchase intention. It is no doubt that the implementation of National Recovery Plan would affect the consumers' purchase decision as they are going through different phases with different restrictions. This is an uncertainty for businesses especially the small and mid-size enterprises (SMEs) to cope with. Hence, the findings of this research can provide the pattern of consumers' purchase decision towards mobile advertising which could be very useful for businesses to draw out blueprints of their business plan to be executed. Enterprises that build up integrated mobile campaigns that lead consumers from the introduction of product to sale will experience profitable growth (Meyer, 2017). In short, this paper is able to analyse on the consumers' behaviour towards mobile advertising. As a result, the more effective of the advertisement lead to higher consumers' consumption that could help to boost Malaysia's economy.

The mobile advertising strategy is being used in most of the industry to promote the products or services provided by the enterprises. It could help the marketers to approach more consumers by minimizing the cost. Furthermore, people nowadays are more concern and paying more attention on their mobile devices which the mobile advertisement is already a common strategy to be used. It might also assist advertising agencies in Malaysia in analysing the changing market and the public feedback. Hence, the findings of this paper is contributing to improve the advertisement content that could be an advantage for business to earn profit and for consumers to easier navigate the product or service that they are looking for.

1.7   Chapter Layout

The first chapter discusses the research overview that discusses on the background of the topic as the foundation for analysis in the following chapters. Problem statement is developed to point out the issues occur that becoming one of the purposes for conducting the research. Besides that, the questions and objectives of this studies is being determined which will be focused on throughout the paper. Significant of study is also concluded in chapter 1 to assist different parties that need the information on the relevant topics.

Chapter 2 explains on the literature review including the underpinning theory that is being used which act as the base for research framework. The independent variables and dependent variables will be determined. Next, research framework will be proposed and the hypotheses of studies will be further elaborate.

Chapter 3 discusses the methodology that applied in the research including the research design, data collection method and data analysis tools. Besides, construct measurement is shown in a table form to have a better understanding towards questionnaire that has been developed.

Chapter 4 covers the data analysis including descriptive analysis, reliability test, Multiple Regression Analysis, and Pearson Correlation Analysis will be applying IBM SPSS Statistics to analyse. The result will be presented in the form of tables and lastly the test of hypothesis will be discussed.

Chapter 5 discusses on the conclusion that made according to the previous chapters. It includes the implications, limitations, and recommendations for future studies.

1.8   Summary

In summary, the government has been implementing National Recovery Plan starting from 15 Jun 2021 causing a new norm for Malaysians. The new changing lifestyle is affecting the consumers' behaviour including their attitude and purchase intention. Therefore, the factors that influence the effectiveness of mobile advertising might be different from the old days. There are some questions appeared because of the problem stated above and this research is aiming to figure out solutions which act as objectives throughout the analysis. The scope of study is fixed to only the mentioned areas are being investigated to ease the research job. Significant of study has mentioned that this research paper will be contributed to various parties.

CHAPTER 2: LITERATURE REVIEW

2.0 Underpinning Theories

2.0.1 Stimuli Organism Response Model (SOR)

Albert Mehrabian and James A. Russel built up the SOR model by
researching consumer behaviour in year 1974 ("The S-O-R Model", 2020). In
another word, Mehrabian and Russel investigate consumer behaviour and
establish the model based on their findings on the research. The S.O.R model
represents Stimulus, Organism and Response that are used to test the response
that caused by various mechanisms. It illustrates a person's reaction to
environmental stimuli. According to Mehrabian and Russel (1974), the
Stimulus-Organism-Response (SOR) model depicts that the environment is a
stimulus (s), contains of a set of signal that affect someone's internal
assessment (O) and subsequently construct a response (R). It states that
stimuli impact and influence consumers 'attitude, reactions and emotional
states (organism), contributing in the consumers behaviour or purpose as a
result (Zhu et al.).

According to Belk (1974), stimulus (S) can be defined as a situation that all
such factors specific to a time and location of investigation which do not
comply from a knowledge of personal (intra-individual) and stimulus
(selection alternative) features and which can have a persistent and observable
impact on present behaviour. There are two categories of stimuli could affect
the level of situational involvement. The first category contains of the stimuli
that is linked to the item or issue toward which the behaviour is to be oriented
fall into one of the two categories, based on their ability to evoke concern. The
second category contains of stimuli derive from the social-psychological
context surrounding the buying and consumption of a product (Houston &
Rothschild, 1977). Apart from that, there are two main elements contained by

the enduring involvement (O) which is also known as the organism. One of
the elements is the individual's prior exposure to familiarity with the scenario
or products' attributes while the second element is the connection between an
individual's value system and the products (Arora, 1982). Lastly, the response
involvement (R) occurs from the complicated cognitive and behavioural
processes that characterize the entire consumer decision process (Arora, 1982).

Figure 2.1 The S-O-R Model by Lee and Chen
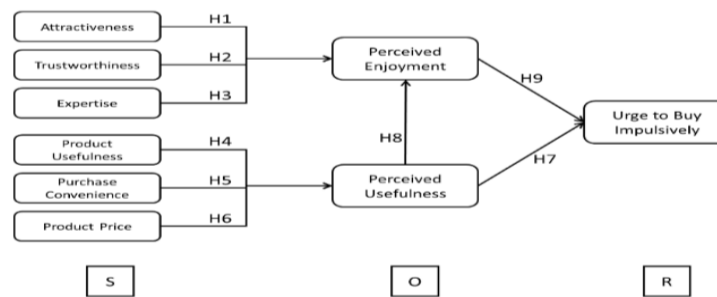
Source: Lee, C., & Chen, C. (2021). Impulse Buying Behaviors
in Live Streaming Commerce Based on the Stimulus-
Organism-Response Framework. *Information*, *12*(6), 241.
https://doi.org/10.3390/info12060241

S-O-R model is used in this research paper to better understand on the reasons
of consumers' behaviour. The majority of individual's behaviours are a result
of external stimuli affecting the internal sentiments ("The S-O-R Model",
2020). Hence, S-O-R model is developed to analyse the stimuli that affect
consumer behaviour towards mobile advertising and the effect level. The
above figure shows that the S-O-R research model that was developed by Lee
and Chen in 2021. Stimuli like attractiveness, trustworthiness, expertise,
product usefulness and product price are adapted from Lee and Chen's model
to be analysed in this research paper.

2.0.2 Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) model was established by Fishbein and Azjen in 1975 for investigating two categories of variables, namely: attitude that refers to a good or bad emotion towards attaining an objective and subjective norms, which are the explicit depiction of ones' assessment of the product's capacity to reach those goals (Skewes & Gonzalez, 2013). The objective of the model is to examine the underlying core motive to accomplish an activity to better understand an individual's voluntary conduct. It indicates that there are components that influence people's intention to perform an action and thus influence their behaviour. Based on the TRA model, if people have a positive attitude toward the proposed conduct (attitude) and believe others want them to execute it (subjective norm), they will have a greater intention (motivation) and are more likely to do it (Mayer & Pizer, 2009).

Figure 2.2 The TRA model by Tsang et al.
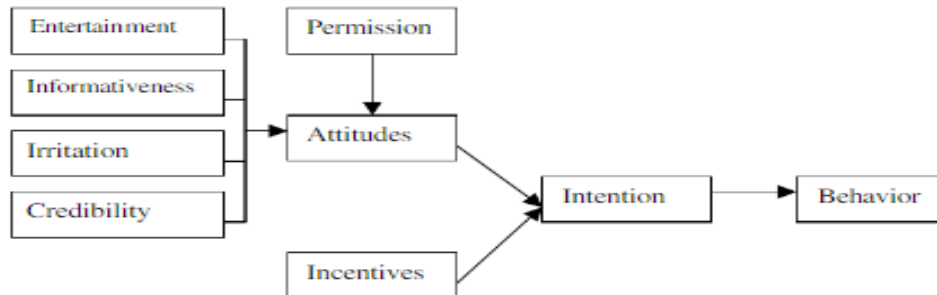
Source: Tsang, M., Ho, S., & Liang, T. (2004). Consumer Attitudes Toward Mobile Advertising: An Empirical Study. *International Journal Of Electronic Commerce*, *8*(3), 65-78. https://doi.org/10.1080/10864415.2004.11044301

Figure 2.2 shows the TRA framework that developed by Tsang et al., in 2004. The framework had been adapted in this research including the intention and behaviour.

2.1 Consumer Behaviour

Consumer behaviour can be considered as an analysis of how a particular consumer, or a group of consumers choose, purchase, use and dispose of thoughts to the products or services for satisfying their demands (Chand, n.d.). It is extremely important to understand consumers' purchase decisions, including their purchase patterns and behaviours so that businesses can execute the most effective strategy for the planning. There are four main contexts that regulate and disrupt consumer habits which include change in social context, technology, rule and regulations, and lastly is an unpredictable context (Sheth, 2020). The outbreak of pandemic is examined as the less predictable context which influences the purchase habit of consumers. Due to the implementation of MCO, it is a must for every Malaysian to follow the Standard Operating Procedures (SOPs). According to The Star Online (2021), one of the standard operating procedures mentioned that every resident in MCO areas is prohibited from leaving their home. People are asked to social distance in order to avoid the spread of virus. Plus, all educational institutions are not allowed to open during this period. This has obviously shown that consumers are restricted from behaving like in the old days.

2.2   Digital Technology

The outbreak of COVID-19 pandemic has caused an unavoidable surge in using digital technology (De' et al., 2020). The usage of mobile phones has increased rapidly as people need the internet to accomplish their daily tasks. It is found to be an increased in digital adoption. For example, students and teachers are using mobile devices to attend their Online Teaching and Learning (OTL) classes, while white-collar workers use mobile devices to Work from Home (WFH). Furthermore, some findings have shown that the increased utilization of e-commerce across regions, with consumers in emerging economies building the remarkable shift to online shopping. Although the lockdown around Malaysia had brought huge losses to many people, the boom of e-commerce could transform the business strategy and bring profit for those users that can adapt to this new norm. According to the Department of Statistics

Malaysia (DOSM), the income of Malaysia's e-commerce increases 23.3% year-on-year (y-o-y) to RM267.6 million during the second quarter of the year 2021, directed mostly by manufacturing and services sectors (Khalid, 2021). This shows that a lot of firms have enhanced their involvement in e-commerce in order to survive during this challenging period.

2.2.1 Mobile Advertising

Due to the rapid growth in mobile and e-commerce, it is certain that it would affect the advertising market. A report claims that Malaysian's are spending 3.7 hours on the internet (for personal use) pre-Covid-19, which rose to 4.8 hours during Movement Control Order period("Internet usage in Malaysia spikes as Covid-19 pushes more people to go online", 2020). As the mobile phone is now considered a basic need for everyone, there is no doubt that it has brought huge changes to the traditional advertising style. The traditional ways of advertising include advertising through newspapers, magazines, telephone, books, radio, and TV (Lavinsky, 2013). However, people nowadays are spending more time on smartphones instead of newspapers, books, or radio. Hence, mobile advertising strategy has appeared in the marketing field. Mobile advertising can be referred to advertising and advertising campaigns that are created for mobile devices which consist of smartphones, tablets, and wearable devices ("What is Mobile Advertising & Why Is It Important | Consumer Acquisition", n.d.). Mobile advertisements might appear in different applications or even through SMS (Short Messaging Service). There are many types of mobile advertising that could be implemented such as banner ads, interstitial ads, video ads, playable ads, rewarded ads, native ads, rich media ads, in-app ads, and cross-promotional ads (Tasyurek, 2021).

2.3 Covid-19 Pandemic

The first COVID-19 case in Malaysia was found on 25th February 2020 due to three Chinese nationals had close contact with the infected patient in Singapore (Elengoe, 2020). The outbreak of pandemic had hit Malaysia and thus brought many changes to the lifestyle of Malaysian. This is due to the announcement of the beginning of MCO (Movement Control Order) by Malaysia government. The government announced a 14-day Restricted Movement Order that began on 18th March 2020 to cut off the transmission of COVID-19 pandemic around Malaysia ("14-day Movement Control Order begins nationwide on Wednesday | New Straits Times", 2020). The implementation of MCO had restrained most of the activities and shut down the economic sectors which brought to severe impact for many Malaysians. Many people lost their jobs during this pandemic as they were not able to adapt to the new norms. According to Department of Statistics Malaysia Official Portal (2021), there were 745.1 thousand unemployed in July 2020. The full GDP of Malaysia in year 2020 was written down to be at –5.6% in the comparison of 4.4% in year 2019 (Arfa, 2021). It is clearly shown that Malaysia's economy had undesirable impact that caused by COVID-19 pandemic.

As time passes by, COVID-19 cases are on the increase in these two years and affecting the growth of economy in the country. To stabilize this condition, the Malaysia government has announced a MCO 3.0 on 31 May 2021 beginning from 1 June 2021 that continued for 14 days which was the same as the first lockdown in March 2020. However, Malaysia's Gross Domestic Product (GDP) had grown by 16.6% year-on-year within second quarter of year 2021, stated by the Bank Negara Malaysia (BNM) and the Department of Statistics Malaysia (DOSM). This statistic was totally different from the year 2019, which shows that people are more familiar with the new lifestyle already. Therefore, it is worth to discuss about changes that made by Malaysian consumers and Malaysia Government to overcome the economic crisis caused by COVID-19.

2.3.1 National Recovery Plan

On 15 June 2021, the former Prime Minister of Malaysia, Tan Sri Muhyiddin Yassin, announced a National Recovery Plan (NRP) that included four-phases. The main threshold indicators for all the phases are the Covid-19 infection rate, capacity of the public healthcare system, and vaccination rate (Tan, 2021). According to Tan Sri Muhyiddin Yassin, National Recovery plan is playing a vital role in mapping out a path for Malaysia to exit the crisis systematically and effectively ("National Recovery Plan (NRP) Official Portal / Portal Rasmi Pelan Pemulihan Negara (PPN)", 2021). The implementation of National Recovery plan is aim for the people in the country could return back to normal lives. The first phase involves the execution of Full Movement Control Order (FMCO) in light of the high COVID-19 cases, severe state of the healthcare system and poor vaccination rate. In phase two, economic activities reopening, which up till 80% of workers allowed onside, only a few sectors allowed to work include cement manufacturing and sales of electronic device. In phase three, almost all economic activities are allowed to operate except for high-risk and large number of people gathering. Lastly, in phase four, economy activities will resume back to normal and all sectors are allowed to be reopened, subject to strict SOP compliance ("Highlights of the National Recovery Plan", 2021).

Figure 2.3 The National Recovery Plan from TheEdgeMarket
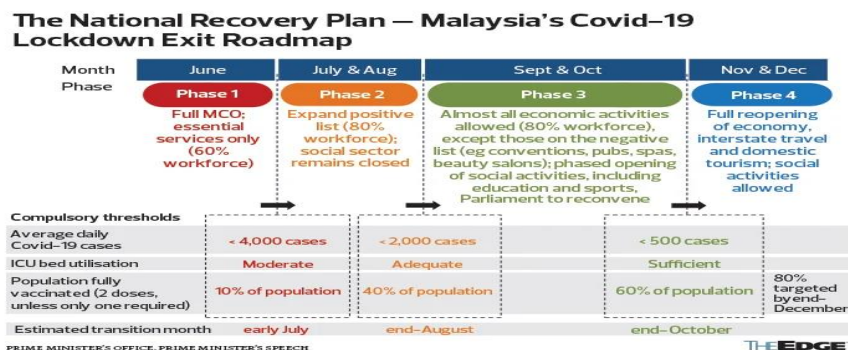
Source: Highlights of the National Recovery Plan. The Edge Markets. (2021). Retrieved 3 November 2021, from https://www.theedgemarkets.com/article/highlights-national-recovery-plan.

As a result, consumers' behaviours and spending patterns change due to the shifting of phases. According to My Government Portal, currently there is no state in phase 1 and phase 2, while there are seven states in phase 3 including Perlis, Kedah, Kelantan, Pulau Pinang, Perak, Sabah, Sarawak and nine states in phase 4 including Pahang, Terengganu, Putrajaya, Kuala Lumpur, Selangor, Johor, Melaka, Negeri Sembilan, Labuan ("MyGOV - The Government of Malaysia's Official Portal", 2021). Hence, consumers' behaviours towards mobile advertising could be different from different phases of National Recovery Plan. In this research, the consumers' behaviour towards mobile advertising is studied.

2.4 Review of Variables

In this research, there are seven independent variables have been developed, which are attractiveness, trustworthiness, expertise, social presence, user interface, product price and product usefulness. There is a mediator, the consumer purchase intention and the dependent variable, consumer buying behaviour.

2.4.1 Attractiveness

Today with the high competition between products, the attractiveness of advertisement is being taken into high consideration as there are many businesses occur nowadays. It can be clearly seen that, if an advertisement wish to attract consumers' attention, it should be enough attractive to catch the

audience' eyes. The meaning of attractiveness can be defined as delightful, charming, or alluring characteristics, especially in look or manner.

According to Beh & Badni (2010), the study indicates that human figures were the cause that encourages viewer to constantly fix to inside a visual information environment. When compared to other elements or stimuli given, human faces are among the factors that contribute to the fastest recognition by customers (Ohme et al., 2011). It is clearly shown that the human figures and faces are able to catch the audience's eyes even when it is with other distractors. In short, it can be concluded that the attractiveness is an important factor in a mobile advertisement, which it could include elements like human figures and human faces that would affect the level of attractiveness.

2.4.2   Trustworthiness

Nowadays, people are exposed to too much information and type of products which they are able to obtain product knowledge and information easily through word-of-mouth. During though times like the ones people are seeing today, consumers will gravitate toward organizations they can trust (Lewis, 2020). Hence, trustworthiness is crucial for businesses to compete with the competitors. Customers who lack trust on the company will focus on the company's flaws, usually causes discord and hesitation which will inflict damage on the relationship (Newman, 2015).

Trust is recognized as a main aspect in assisting mobile consumers in overcoming their negative and unfavourable perception of such advertisement (Zarmpou et al., 2012). This means that the mobile consumers are able to change their behaviour toward the advertisement when they have enough trust to it.

2.4.3   Expertise

Expertise can be referred as the excellent skill or understanding that might act as stimulus to customers (Lee & Chen, 2021). Advertising is basically a process for customers to gain knowledge about the product or service details and the company information. Audience could get persuaded if the advertisement is skilful. This is because advertising consists of two types of copy information, that are information relating to the product characteristics qualities and/or information about how to utilize a product effectively, which interpreting both sorts of information needs the consumer's prior knowledge (Beattie, 1983).

It can be concluded that the high skills and expertise of an advertisement that delivers to the consumers is able to increase their knowledge about the products. The expertise of an advertisement could have an impact on how people perceive the product's quality. Besides, the expertise of celebrity endorsement is also a huge concern for the customers. It does not matter if the celebrity is a true expert in the industry when it comes to expertise; it matters if the consumers trust that the celebrity has expertise (Ohanian, 1990).

2.4.4   Social Presence

The concept of social presence was introduced by Short et al. (1976) as the importance of the interactants and their interpersonal interaction throughout a mediated discourse. The degree to which an individual experiences the presence of participants in a conversation is referred to as social presence (Calefato & Lanubile, 2010). It is commonly seen in interactive advertisement nowadays as many advertisers wish to engage with the consumers directly. This is because the interactive advertising is able to provide audience a lasting impression which could increase their brand recognition. Fortin & Dholakia

(2005) stated that through the availability of open channels that allow for two-way communication, interactivity is believed to provide the audience a sense of social presence. It can be clearly seen that the interactivity in an advertisement could define the social presence they convey to the audience. Social presence theory is also been used in mobile advertising to raise the communication with consumers and able to build relationship with audience that could boost their loyalty.

2.4.5 User Interface

Nowadays, display of a site keeps changing to make sure that the users are satisfy with their experience which result in the concern of user interface (UI). In a device, the user interface (UI) is the basis of interaction and communication between humans and computer which may include the display screens, keyboard, mouse and the design of a pc (Churchville, n.d.).

The UI design is taken consideration by the advertisers because the functionality of UI could increase the consumer's engagement which means it raises the interaction with consumers. According to Joo (2017), a user interface (UI) is a method for a system and a user to connect together through instructions or skills to manage the system, input data, and interconnect with the contents.

2.4.6 Product Price

According to Ehsani & Ehsani (2015), price may be used as a capability to raise profit as well as consumer's enjoyment. It acts as a tool for businesses to draw a blueprint for their future as pricing strategy brings an effect to the customer interest. A product's price can be categorized into three groups which are fair price, fixed pricing and relative price (Albari & Albari, 2020).

Fair pricing refers to the adaption of a price that delivers a mix of quality and acceptable services at a reasonable price, according to Kotler & Keller (2016), whereas fixed pricing refers to a price that has already been determined for all consumers. Relative price refers to the price set up according to the seller's quality and service (Kotler & Keller, 2016). The consumers' perception on price may affect their satisfaction towards the products.

2.4.7   Product Usefulness

Product usefulness refers to consumer's perception that a product or service delivers an advantage that meets an individual's needs from a consumer standpoint. It is obvious that the usefulness of a product can be decided by the benefit that is delivered to the consumers. Besides, the usefulness of a product can be measured in a few perspectives. According to Aubin et al., (2012), the usefulness of a product is described as a measurable and practical advantage in terms of time, energy savings, and other factors. Hence, consumers may identify the level of usefulness of a product according to those standards.

Aubin et al., (2012) stated that the overall usefulness of a product may be assessed by a few aspects. The aspects include determining the user demographic and observing their behaviour; identifying the most basic and related tasks; placing a value on the relative significance of those actions that take place in a certain setting; comparing the utility of a product to that of one or more other products. However, the basis for this comparison is its performance in terms of time such as the amount of energy consumed and the general safety.

2.4.8   Consumer Purchase Intention

The meaning of a consumer's purchasing intention is the consumer attitude toward a certain purchasing behaviour and the consumer's degree of willingness to make a purchase (Zhang et al., 2020). Purchase intention acts as an evaluation of an individual level of willingness to buy and also particular action that might be performed by the consumers. According to Mirabi et al., (2015), purchase intention is frequently connected to consumer behaviour, perceptions, and attitudes. The relationship between them is interrelated.

.Gogoi (2013) stated that the internal and external motives are affecting consumer throughout the entire buying process. There is no doubt that the motives are the factors that influence the degree of consumer intention to purchase a particular product. Those factors could be very important for a business to analyse the consumers' attitude.

2.4.9   Consumer Buying Behaviour

According to Kumar (2016), consumer behaviour research is referring to the way people choose to spend their limited resources such as time, money, and effort on consumption-related matters. The method that consumers' chose, acts as the behaviour in their purchasing process. Qazzafi (2020) stated that there are four major factors influencing consumer buying behaviour including personal factors, psychological factors, social factor and economic factor.

2.5   Proposed Research Framework

The attractiveness, trustworthiness, expertise, social presence, user interface, product price and product usefulness are the stimuli that affect consumer purchase intention and then it shaped the consumer buying behaviour. The conceptual framework has developed as figure 2.4.

Figure 2.4 Prosed Research Framework
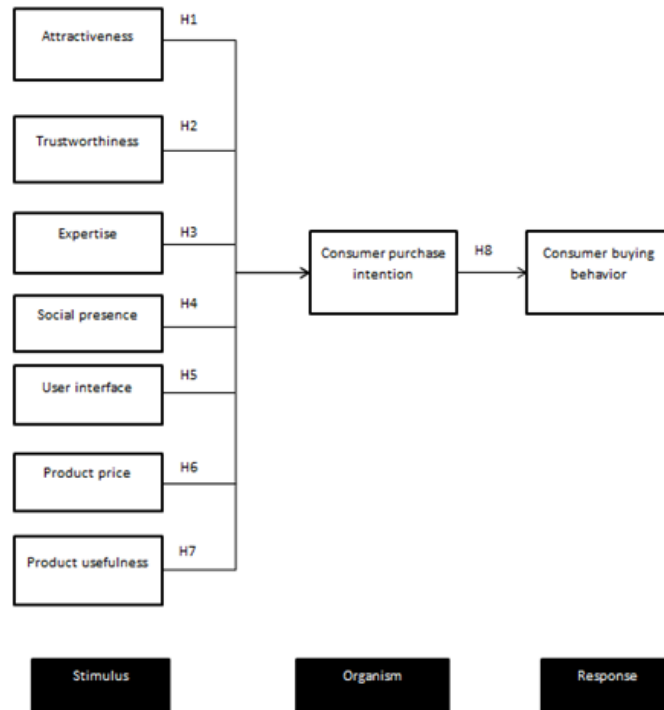
Source: Developed for the research

2.6 Hypothesis of the Study

2.6.1 Attractiveness and the Relationship with Consumer Purchase Intention

If the advertisement content is interesting enough to attract the audience, they would stay longer or even purchase the product advertised. Therefore, the attractiveness of an advertisement might affect the consumer's purchase intention. The degree of attractiveness in an ad is relatively more effective as there is a linear relationship between them. The attractiveness of an advertisement can be analyzed through the choice of endorsers and their physical appearance. According to a study conducted by Onu et al., (2019),

the physical attractiveness of celebrities in advertisements has a positive effect on consumer purchase intention. The research findings showed that physical attractiveness is having 53% impact on consumer purchase intention. This is obvious that the physical appearance of endorsers is able to stimulate consumer purchase intention.

Hence, the hypothesis is:

H1: Attractiveness has a positive impact on consumer purchase intention

2.6.2 Trustworthiness and the Relationship with Consumer Purchase Intention

Trustworthiness is the feeling of being confident towards a particular object which would then occur the willingness to rely on it. The trustworthiness of advertisement is able to increase the credibility of the business and therefore raise the connection between consumers. As a result, the higher trust that the consumer has towards the advertisement, the higher that their intention to purchase the product advertised. According to the research that was carried out by Mosa, (2021), there is a moderate positive effect relationship between ad credibility and consumer buying intention. It presents that the high credibility of an advertisement can earn trust from consumers and hence increased their intention to buy a particular product.

Hence, the hypothesis is:

H2: Trustworthiness has a positive impact on consumer purchase intention

2.6.3 Expertise and the Relationship with Consumer Purchase Intention

The expertise refers to the level of skill or knowledge; hence, the expertise of an advertisement refers to the expert skill that is being delivered to the audience. The higher expertise being delivered is able to raise consumer interest and thus stimulate the purchase intention. In most of the time, advertisers would decide to invite a celebrity or public figure to become their endorser so that it could increase the exposure as the endorsers themself are popular. Therefore, the expertise of endorsers might give a huge impact to the consumer perception. According to Amos et al., (2008), the degree of expertise of a celebrity will decide the advertisement effectiveness. It can be clearly seen that the high level of expertise could make the advertisement more effective which can increase consumer purchase intention. Besides, Faizal et al., (2019) stated that the purchase intent of Malaysian customers on Instagram is influenced by celebrity endorsers' expertise.

Hence, the hypothesis is:

H3: Expertise has a positive impact on consumer purchase intention

2.6.4   Social presence and the Relationship with Consumer Purchase Intention

The social presence is the feeling of participating in a community with the connectivity of one individual with another individual. It is often discussed in the marketing world to enhance the relationship with the audience and then interact with them. By establishing a social presence in the advertisement, this means that the advertiser is improving the interactivity with the audience. According to a research done by Botha & Reyneke (2015), the social presence positively impacts the online purchase intention. Botha & Reyneke (2015) stated that the higher the level of product involvement, the larger the influence of social presence on purchase intention.

Hence, the hypothesis is:

H4: Social presence has a positive impact on consumer purchase intention

2.6.5 User interface and the Relationship with Consumer Purchase Intention

User interface (UI) is referring to the design that enables users to interact or connect with the device, website or application. A well-established UI design can make the website become unique, and ease the users to operate. A mobile advertisement that usually pops up when the users are using a phone, it needs an effective UI design so that it could increase the interest of the audience. Besides, it might also influence the buying decision of the consumers. According to Wuryandari et al., (2019), variables in user interface design have a positive and significant impact on buying interest variables. A well-designed website that delivers aesthetic product features such as color, design, and style, according to Wuryandari et al., (2019), influences consumers' decisions to browse or search for information. The same goes to advertisement, the consumers will choose to leave or stay according to the design of the interface.

Hence, the hypothesis is:

H5: User interface has a positive impact on consumer purchase intention

2.6.6 Product price and the Relationship with Consumer Purchase Intention

Product price refers to the amount cost for a particular product or service that is charged by businesses. Product pricing is significant in determining the choice of consumers as when the price increases, the quantity of goods or services decrease. It can be clearly seen that the product price is having a direct impact on the consumer purchase intention. According to a research conducted by Nazir & Tian (2022), they found that when the price of a

product rises, it diversely affects the purchase intention since buyers constantly want to save money. Therefore, the product price that displayed in a mobile advertisement is influencing the consumer purchase intention. When the price is low, consumers might increase their interest to buy the product and vice versa. Besides, a study carried out by Tran (2018) to investigate the major aspects driving the purchasing intentions of office workers in Vietnam's north, the result presents that the pricing influenced purchase intention. The price factor influenced the most on smartphone purchase intention of office staff in North Vietnam.

Hence, the hypothesis is:

H6: Product price has a positive impact on consumer purchase intention

2.6.7 Product Usefulness and the Relationship with Consumer Purchase Intention

The degree of product usefulness can be determined by the advantages or benefits that are able to be delivered to the consumers. There are elements that are involved in measuring the usefulness of a product such as the cost and time saved while consuming the product. It sometimes acts as an important standard for consumers to take into consideration while making purchase decisions. Hence, product usefulness could impact on the consumer purchase intention. According to Li et al. (2014), their study found that the product usefulness is positively associated with adoption intention for new products. The researcher has tested on the effect of product usefulness and product originality on motivating consumer adoption intention, and the result shows that in various product areas, product usefulness has a greater impact on consumers' adoption intention. This is because consumers can easily determine the product's usefulness by evaluating if a product can meet their demands and then choose whether or not to acquire. It is obvious that the

product's usefulness is affecting consumer purchase intention. Hence, the product that is being advertised in mobile advertisements would always be estimated by the consumer on its usefulness before deciding to purchase it or not.

Hence, the hypothesis is:

H7: Product usefulness has a positive impact on consumer purchase intention

2.6.8 Consumer Purchase Intention and the Relationship with Consumer Buying Behaviour

Consumer purchase intention is the degree of willingness of the consumer to buy a certain product and is a crucial metric for businesses to develop effective marketing strategies. Therefore, the level of desire to buy a product might affect the consumer buying behavior. According to research carried out by Lim et al. (2016), the relation between purchase intention and online buying behavior was the strongest. The purchase intention online was a significant predictor of actual behavior.. Besides that, Laohapensang & Gail (2009) stated that the intention to engage in internet shopping has an impact on the behaviors, as well as the consequence of this intention. It is shown that the intention will influence the behavior. In conclusion, there is a positive relationship between the consumer purchase intention and the consumer buying behavior.

Hence, the hypothesis is:

H8: Consumer purchase intention has a positive impact on consumer buying behavior

2.7   Summary

In this chapter, two underpinning theories have been discussed which are the Stimuli Organism Response Model (S-O-R) and Theory of Reasoned Action (TRA). Besides, it included the literature review of seven independent variables, namely attractiveness, trustworthiness, expertise, social presence, user interface, product price, and product usefulness. Then, it also consists of one mediator which is the consumer purchase intention and one dependent variable which is the consumer buying behaviour. Furthermore, a research framework has been proposed for the objective of this study.

CHAPTER 3: METHODOLOGY

3.0   Introduction

The methodology refers to the conceptual framework within which the study is conducted, or the foundation upon which the research is built. (Brown, 2006). Quantitative research and descriptive research will be conducted in this section. Besides, Chapter 3 defines sampling design, data collection method, proposed analysis tools and construct measurement.

3.1   Research Design

According to McCombes (2022), research design is a strategy for collecting empirical data to investigate on the research study which establishing research design involves selecting on the main objectives and technique, the sort of research design to be adopted, the subject selection criteria or sampling methodologies, strategies for collecting data, the strategy to use to collect data, and the methods on data analysing. Quantitative research method and descriptive research method will be applied in this study.

3.1.1   Quantitative Research

Quantitative research defines a group of techniques for systematically studying social issues by applying statistical or numerical data (Watson, 2015). Quantitative research is used to identify the relationship between independent variables and dependent variables by involving measurement. Bhandari (2021) defined quantitative research as the process of collecting and evaluating numerical data which could be applied for recognizing patterns and averages, establish forecasts, evaluate causal linkages, and extrapolate results to a larger

population. However, quantitative strategy can only be conducted to items that can be measured such as the weight, age and length. It is not able to measure items that cannot be quantified such as loyalty of employees, the feeling of consumers and the thoughts of people. The quantitative data can be collected in several ways like surveys, polls and questionnaires look into the numerical data. Therefore, the quantitative research is conducted in this study by collecting data through distributing questionnaires.

3.1.2 Descriptive Research

Descriptive research refers to the analysis that is applied to explain a population's attributes that gather data that is being applied to solve a variety of what, when, and how inquiries about a particular population or group (*Descriptive Research Studies*). This means that the descriptive research does not explain the research problem but only aims to understand better about the issue. It is used to explain systematically and accurately about the attributes of a population or group. This study is using descriptive research with the parameters of mean, standard deviation, frequencies, percentages and averages to investigate the relationship between variables quantitatively.

3.2 Sampling Design

A sampling design is the basis in a research which is extremely important for data analysis. Sampling is the process of choosing units from a population of interest such that researchers could appropriately generalize the conclusions drawn from the population from which they were selected by examining the sample ("Sampling", n.d.).

3.2.1 Target Population

The selection of target population is to develop a scope to ensure that it could reach the goals of the research.

The target population in this study is Malaysians that are staying in thirteen states in Malaysia. However, this study only focuses on respondents that have at least one smart device as the objective is to examine the effects of mobile advertisements towards the respondents. Hence, those with no smart devices are not targeted to be studied.

3.2.2 Sampling Location

The sampling location is the location where the sample was collected. In this research, there is no sampling frame applied. The sample in this study will be collected through online platforms with the distribution of Google Form. Respondents are the target samples that stay in different states in Malaysia.

3.2.3 Sampling Elements

In this research, only the respondents staying in Malaysia are chosen to fill in the questionnaire as a sampling element. This is to make sure that they are applicable to be studied as the objective of this research is to understand consumer behaviour towards mobile advertising during the National Recovery Plan. Besides that, respondents must have smart devices and must at least shop online several times.

3.2.4 Sampling Technique

Sampling is a technique that is operated by researchers for choosing a comparatively smaller number of representative items or participants from a pre-defined population to operate as subjects for investigation or experimentation in conformity with the objective of the researcher's paper (Sharma, 2017). There are two sorts of sampling techniques that could be applied. The first type is probability sampling that contains random selection, which allows researchers to develop significant statistical conclusions regarding the entire group. The second type is non-probability sampling that requires establishing a non-random selection according to convenience or other factors, allowing researchers to acquire data more readily (McCombes, 2022). This study uses convenience sampling technique to carry out the research. Convenience sampling is a strategy to gather samples that are advantageously attainable near a place or internet service (Edgar & Manz, 2017). This technique is chosen because it is more convenient and easy to collect samples in a short period of time.

3.2.5   Sampling Size

It is important to determine the size of the sample that should be collected. This is because the size affects two statistical properties: the precision of researchers' estimations and the study's capacity to draw out conclusions ("Sample size and power", 2008). Therefore, in this study, the sample size consists of 200 respondents which means a total of 200 questionnaires have been given out to respondents around Malaysia. The sampling size is decided based on the time limitation of this research.

3.3   Data Collection Method

In this section, the primary data collection method is being used to collect information.

3.3.1 Primary Data Collection

Primary data is information gathered by a researcher through surveys, interviews, and experiments with the goal of assisting the researcher in understanding and solving the study problem at hand (Wagh, 2022). In this study, primary data is collected by distributing questionnaires to target sample in order to gather the information. The primary data is first-hand data which means it is designed to meet the study objectives; hence, this collection method can ensure that the data collected are up-to-date and accurate.

3.4   Proposed Data Analysis Tool

Data analysis is the methodical use of statistical and/or logical tools to characterize and illustrate, compact and repeat, and evaluate data ("Data Analysis", n.d.). There are tools available to analyse data; this study will use questionnaires, descriptive analysis, reliability tests and inferential analysis.

3.4.1   Questionnaire Design

In this study, the questionnaire has two sections which are section A and section B.

In section A, demographic profile questions will be asked through close-ended questions. Respondents are required to tick in the blanks with the best alternative in the boxes given. This section contains 12 questions including gender, age, ethnicity, location, education, employment status, income level, owning a smartphone, owning a tablet, main purpose of using mobile devices,

average time spent on phone per day and frequency of shopping. All questions
are asked on a nominal scale.

In section B, variables will be asked through close-ended questions. There are
a total of 37 questions with nine variables including attractiveness,
trustworthiness, expertise, social presence, user interface, product price,
product usefulness, consumer purchase intention and consumer buying
behaviour. All questions are asked in interval scale with five values: strongly
disagree, disagree, neutral, agree, and strongly agree.

3.4.2   Pilot Test

According to Arain et al. (2010), a pilot test is a small feasibility study that is
intended to evaluate some parts of the technique that will be applied in a
larger research. In other words, the objective of the pilot test is to identify the
feasibility of the major research by using a smaller scale basis. Therefore, 30
sets of questionnaires have been used in this study to be tested in the pilot
study. According to the Cronbach's Alpha rule of thumb, when the variable is
greater than 0.7, this means that it is reliable. All the variables conducted in
pilot test are greater than 0.7; thus, all are reliable.

Table 3.1 Pilot Test

Construct	Cronbach's Alpha	No. of items
Attractiveness	0.922	5
Trustworthiness	0.934	4
Expertise	0.860	4
Social Presence	0.919	5
User Interface	0.909	4
Product Price	0.955	3
Product Usefulness	0.897	3

Consumer Purchase Intention	0.903	5
Consumer Buying Behvior	0.746	4

Source: Developed for the research

3.4.3   Descriptive Analysis

Descriptive statistics refers to the statistics that explain the central tendency ('middle' or anticipated value) and dispersion (the distribution of the variable's responses) of a variable ("LibGuides: SPSS eTutor: Descriptive Statistics", n.d.). The descriptive analysis can be shown as graphical presentation or photographic and are measures of four criteria. The first criterion is measures of frequency including count, percent, and frequency. The second criterion is measures of central tendency including mean, median, and mode. The third criterion is measures of dispersion or variation consisting of range, variance, and standard deviation. The last criterion is measures of position that contain percentile ranks and quartile ranks.

In this study, descriptive statistics is applied to evaluate data collected from section A and is shown in the form of table.

3.4.4   Scale Measurement – Reliability Test

Test reliability refers to the degree to which a test measures without making an error, and it is strongly related to test validity. (Franzen, 2011). In this research, Cronbach's alpha that was developed by Lee Cronbach in 1951 is being used to measure internal consistency. The reliability of any particular measurement relates to the amount to which it is a consistent measure of a subject, and Cronbach's alpha is one technique of measuring the level of that

consistency (Goforth, 2015). In other words, Cronbach's alpha can check whether the multiple question likert scale is reliable or not, which means it acts as a tool to test reliability. There is a formula and rule of thumb contained by Cronbach's alpha. Table 3.4 presented Rule of Thumb for Results (citation).

Figure 3.1 Formula of Cronbach's Alpha

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$$

Source: Lee Cronbach, 1951

Table 3.2 Rule of Thumb for Results

Cronbach's Alpha	Internal Consistency
a ≥ 0.9	Excellent
0.9 > a ≥ 0.8	Good
0.8 > a ≥ 0.7	Acceptable
0.7 > a ≥ 0.6	Questionable
0.6 > a ≥ 0.5	Poor
0.5 > a	Unacceptable

Source: Lee Cronbach, 1951

3.4.5　Inferential Analysis

The hypothesis will be tested by using inferential analysis through Pearson correlation coefficient and multiple regression analysis.

3.4.5.1　　Pearson Correlation Coefficient

The Pearson correlation coefficient is an indicator of the strength of a linear relation between two variables and is denoted by r ("Pearson Product-Moment Correlation", n.d.). It generates a value in the between -1 and 1, with 0 indicating no correlation, 1 indicating total positive correlation, and -1 indicating total negative correlation. This method can be explained as follows; a correlation value of 0.5 between two variables indicates that a substantial and positive relationship occurs between the two variables.

3.4.5.2   Multiple Regression Analysis

Multiple Regression refers to a statistical approach for examining the relationship between a dependent variable and multiple independent variables (Wagner et al., 2006). The relationship between the dependent variable which is the consumer buying behaviour, the mediator, consumer purchase intention, and the seven independent variables, attractiveness, trustworthiness, expertise, social presence, user interface, product price, product usefulness, will be tested using multiple regression analysis. The formula is presented as follows:

$y_i = \beta_0 + \beta_1\, x_{i1} + \beta_2 x_{i2} + \ldots + \beta_p x_{ip} + \epsilon$

whereby,

y_i : dependent variable

β_0 : y-intercept

β_1 & β_2 : indicates the change in y in relation to a one-unit change in x_{i1} and x_{i2}, accordingly

β_p : slope coefficient for every independent variable

ϵ : random error

3.5   Construct Measurement

The sources and measure of the construct that were used in the questionnaire is being analysed in this section.

3.5.1   Origin and Measure of the Construct

The origins of the constructs are presented as follows:

Table 3.3 Construct Measurement

Variables	Sources	Original question/point	Modified question
Attractiveness	Lee, C., & Chen, C. (2021). Impulse Buying Behaviours in Live Streaming Commerce Based on the Stimulus-Organism-Response Framework. Information, 12(6), 241. https://doi.org/10.3390/info1206024 1	The live streamer gives me a good feeling	Mobile advertisement gives me a good feeling
		The live streamer is attractive	Mobile advertisement is attractive
		The live streamer catches my attention	Mobile advertisement catches my attention
		I feel the live streamer is friendly	I feel the mobile advertisement is friendly
		I feel the live streamer is likable	I feel the mobile advertisement is likable
Trustworthiness	Lee, C., & Chen, C. (2021). Impulse Buying Behaviours in Live Streaming Commerce Based on the	I feel the live streamer is dependable	I feel the mobile advertisement is dependable

		Stimulus-Organism-Response Framework. Information, 12(6), 241. https://doi.org/10.3390/info1206024 1	I feel the live streamer is honest	I feel the mobile advertisement is honest
			I feel the live streamer is trustworthy	I feel the mobile advertisement is trustworthy
			I feel the live streamer is sincere	I feel the mobile advertisement is sincere
Expertise	Lee, C., & Chen, C. (2021). Impulse Buying Behaviours in Live Streaming Commerce Based on the Stimulus-Organism-Response Framework. Information, 12(6), 241. https://doi.org/10.3390/info1206024 1		I feel the live streamer is experienced	I feel the mobile advertisement is experienced
			I feel the live streamer is knowledgeable	I feel the mobile advertisement is providing knowledge
			I feel the live streamer is qualified	I feel the product in mobile advertisement is qualified
			I feel the live streamer is skilled	I feel the mobile advertisement is skilled
Social presence	Cyr, D., Hassanein, K., Head, M., & Ivanov, A. (2007). The role of social presence in establishing loyalty in e-Service environments. *Interacting With Computers*, *19*(1), 43-56. https://doi.org/10.1016/j.intcom.200 6.07.010		There is a sense of human contact in the website	I feel there is a sense of human contact in the mobile advertisement
			There is a sense of personalness in the website	I feel there is a sense of personalness in the mobile advertisement
			There is a sense of sociability in the website	I feel there is a sense of sociability in the website

		There is a sense of human warmth in the website	I feel there is a sense of human warmth in the website
		There is a sense of human sensitivity in the website	I feel there is a sense of human sensitivity in the website
User interface	Park, C., & Kim, Y. (2003). Identifying key factors affecting consumer purchase behaviour in an online shopping context. International Journal Of Retail & Distribution Management, 31(1), 16-29. https://doi.org/10.1108/09590550310457818	This site is convenient to search for a book	The design of mobile advertisement site is convenient to search for a product/service
		This site is convenient to order for a book	The mobile advertisement site is convenient to order for a product/service
		This site is easy to navigate wanted pages	The display of mobile advertisement site is easy to navigate wanted pages
		This site is user friendly	The illustration of mobile advertisement sites is user friendly and attractive
Product price	Lee, C., & Chen, C. (2021). Impulse Buying Behaviours in Live Streaming Commerce Based on the Stimulus-Organism-Response Framework. Information, 12(6), 241. https://doi.org/10.3390/info1206024	Live streaming commerce offers product at reasonable price	Mobile advertisement offers product at reasonable price
		Discounted prices are very cheap on live streaming commerce	Discounted prices are very cheap on mobile

			advertisement
	1		
		The price of products on live streaming commerce is economical	The product price on mobile advertisement is economical
Product usefulness	Lee, C., & Chen, C. (2021). Impulse Buying Behaviours in Live Streaming Commerce Based on the Stimulus-Organism-Response Framework. Information, 12(6), 241. https://doi.org/10.3390/info1206024 1	The product in live streaming commerce is necessary	The product in mobile advertisement is necessary
		The product in live streaming commerce is beneficial	The product in mobile advertisement is beneficial
		The product in live streaming commerce fulfils a need	The product in mobile advertisement fulfils a need
Consumer purchase intention	Hongyan, L., & Zhankui, C. (2017). Effects of Mobile Text Advertising on Consumer Purchase Intention: A Moderated Mediation Analysis. *Frontiers In Psychology*, *8*. https://doi.org/10.3389/fpsyg.2017.0 1022	Mobile text advertising helps raise our standard of living	I believe that mobile advertising helps raise our standard of living
		Mobile text advertising helps me find products that match my personality and interests	I believe that mobile advertising helps me find products that match my personality and interests
		Mobile text advertising helps me buy the best brand for a given price	I believe that Mobile advertising helps me buy the best brand for a given price

	Murillo-Zegarra, M., Ruiz-Mafe, C., & Sanz-Blas, S. (2020). The Effects of Mobile Advertising Alerts and Perceived Value on Continuance Intention for Branded Mobile Apps. *Sustainability*, *12*(17), 6753. https://doi.org/10.3390/su12176753	Using the MAAs that I receive influences my purchasing behaviour	I believe that mobile advertising influences my purchase intention
	Tsang, M., Ho, S., & Liang, T. (2004). Consumer Attitudes Toward Mobile Advertising: An Empirical Study. *International Journal Of Electronic Commerce*, *8*(3), 65-78. https://doi.org/10.1080/10864415.2004.11044301	I am willing to receive mobile advertisement	I am willing to try on the advertised product in mobile advertisement
Consumer buying behavior	Hongyan, L., & Zhankui, C. (2017). Effects of Mobile Text Advertising on Consumer Purchase Intention: A Moderated Mediation Analysis. *Frontiers In Psychology*, *8*. https://doi.org/10.3389/fpsyg.2017.01022	I will be likely to purchase the advertised product	I will be likely to purchase the advertised product in mobile advertising
		I will purchase if it is necessary	I will purchase the advertised product if it is necessary only
		I will browse the online store to get what I want to buy	I will browse the online store in mobile advertising to get what I want to buy
	Tsang, M., Ho, S., & Liang, T. (2004). Consumer Attitudes Toward Mobile Advertising: An Empirical Study. *International Journal Of Electronic Commerce*, *8*(3), 65-78. https://doi.org/10.1080/10864415.2004.11044301	What do you do when you receive a mobile advertising message?	I will read the mobile advertising message and consider the advertised product

Source: Developed for the research

3.5.2   Scale Measurement
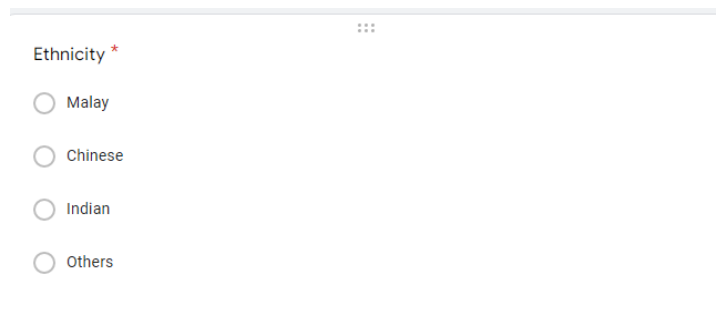
Measurement scale (data type) is a crucial component of data collection, interpretation, and presentation (Mishra et al., 2018). There are several types of scale measurement such as nominal scale, ordinal scale, interval scale and ratio scale; however, only nominal scale, ordinal scale and interval scale are used in this study.

3.5.2.1   Nominal Scale

Nominal scale is referred to as a measuring scale to classify activities or items into discrete categories which means the usage of specific IDs to indicate each independent category, rather than numeric values or categories listed by class, is required for this scale. (Salkind, 2010).

In the questionnaire that was designed for this research, nominal scale has been used to develop questions in section A. The questions in section A are the demographic profile questions which include gender, age, ethnicity, location, education, employment status, owning a smartphone, owning a   tablet and main purpose of using mobile devices. The below figure shows an example of a question using nominal scale:

Figure 3.2 Image of Nominal Scale Questions in this Research
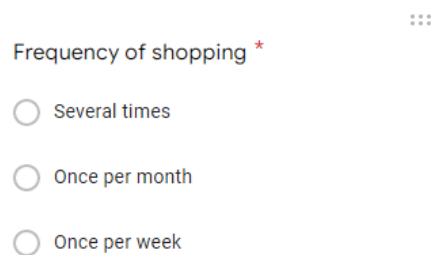
Source: Developed for the research

3.5.2.2   Ordinal Scale

According to Arvidsson (2018), an ordinal scale is made up of values which the order is defined but not their distance from one another and the examples are (never, seldom, several times, often, always) and (1,2,3,4,5). In Section A of the questionnaire, nominal scale is used for three questions including income level, average time spent on phone per day and frequency of shopping. The below figure shows an example of a question using ordinal scale:

Figure 3.3 Image of Ordinal Scale Question in this Research

Source: Developed for the research

3.5.2.3   Interval Scale

Interval scale can be referred to as the degree of measurement in which the variables' features are evaluated on particular numerical scores or values and there are equivalent distances between features (Salkind, 2010). It is also commonly used as likert scale. Likert scales usually

contain 5 or 7- point scales that go from one extreme attribute to the
other.

In the questionnaire, there are nine variables consisting of Section B
and all the questions are asked in likert scale. This is because likert
scale is used to measure the respondents' opinion by asking their level
of agreement and disagreement towards the question listed. Therefore,
a 5 points scale has been developed in this questionnaire by indicating
'1' as strongly disagree, '2' as disagree, '3' neutral, '4' as agree and '5'
as strongly disagree. The below figure shows an example of a question
using interval scale:

Figure 3.4 Image of Interval Scale Question in this Research

Source: Developed for the research

3.6   Summary

In conclusion, chapter 3 mainly discussed the research design, data collection method
and data analysis tools that have been used to analyse the data. Primary data had been
collected by distributing questionnaires to Malaysians in different states. Besides,
pilot test, descriptive analysis, reliability test, and inferential analysis that contain
Pearson Correlation Coefficient and Multiple Regression Analysis are being proposed.

CHAPTER 4: DATA ANALYSIS

4.0   Introduction

Data analysis for quantitative research comprises the critical study and interpretation of figures and statistics, as well as the effort to discover the logic behind the development of major discoveries ("Data Analysis - Research-Methodology", n.d.). In this chapter, all the data collected by distributing Google Form to different social media platforms such as Facebook and Instagram are analysed by various data analysis methods. The result is presented in the form of tables. All the data analysis including descriptive analysis, Pilot Test, Reliability test, Multiple Regression Analysis, and Pearson Correlation Analysis are analysed by IBM SPSS Statistics.

4.1   Descriptive Analysis

There are 200 respondents demographic profile data and general information have been collected through the Section A in questionnaire. The data result will be presented in the descriptive analysis section. Besides, the variance, standard deviation, median, mean, and mode are shown as result of demographic data collection.

4.1.1   Demographic Profile and General Information

Table 4.1 presented the demographic profile and general information of the 200 respondents including gender, age, ethnicity, location, education, employment status, and income level.

Table 4.1 Demographic Profile and General Information

Respondents' Demographic Characteristic		Frequency	Percentage
Gender	Male	44	22%

	Female	156	78%
Age	Below 18	7	3.5%
	18-23	139	69.5%
	24-29	34	17%
	30-35	9	4.5%
	Above 35	11	5.5%
Ethnicity	Malay	23	11.5%
	Chinese	163	81.5%
	Indian	10	5%
	Others	4	2%
Location	Selangor	87	43.5%
	Sarawak	4	2%
	Negeri Sembilan	22	11%
	Kedah	10	5%
	Sabah	4	2%
	Pahang	8	4%
	Perak	20	10%
	Johor	21	10.5%
	Terengganu	4	2%
	Kelantan	1	0.5%
	Malacca	7	3.5%
	Perlis	1	0.5%
	Penang	11	5.5%
Education	Less than high school	6	3%
	High school graduate	21	10.5%
	College student	33	16.5%
	College graduate	14	7%
	Bachelor's degree	117	58.5%
	Postgraduate	9	4.5%
Employment status	Employed	29	14.5%
	Self-employed	8	4%
	Student	155	77.5%

	Homemaker	2	1%
	Unemployed	4	2%
	Unable to work	2	1%
Income level	Less than RM2000	169	84.5%
	RM2000-RM5000	20	10%
	RM5000-RM7000	9	4.5%
	More than RM7000	2	1%

Source: Developed for the research

Based on the result as shown above, there are 78% are female with a sum of number of 156 respondents while there are 22 % of the respondents are male with a sum of number of 44 people.

There are five ranges of age given to the respondents to choose and the major age range of respondents is 18-23 which contributed 69.5% with the total of 139 people. The second largest age group is 24-29 with 17% of respondent (34 respondents). Then, it follows by the above 35 years old with 5.5% (11 respondents), 30-35 with 4.5% (9 respondents) and below 18 with 3.5% (7 respondents).

Next, four options of ethnicity are available in the questionnaire which includes Malay, Chinese, Indian and others. Most of the respondents in this questionnaire are Chinese that contributed 81.5% (163 respondents) among the 200 respondents. The second largest ethnicity group is Malay that contributed 11.5% (23 respondents) while Indian respondents are only 5% (10 respondents). Lastly, the others ethnicity group are the smallest group with 2% (4 respondents).

Besides that, there is a large number of respondents are from Selangor with 43.5% (87 respondents) and followed by 11% from Negeri Sembilan (N=22),

10.5% from Johor (N=21) and 10% from Perak (N=20). Next, Penang has scored 5.5% (N=11). Then, 5% of respondents are from Kedah (N=10) and 4% of them from Pahang (N=8). Followed by 3.5% (N=7) of respondents from Malacca, Sabah with 2% (N=4) of respondents and lastly Sarawak and Terengganu with 2% (N=4) respectively. However, there are also 1 respondent (0.5%) is from Kelantan and 1 respondent (0.5%) is from Perlis.

Moreover, the majority of respondents are bachelor's degree with 58.5% (117 respondents). Then, there are 16.5% (33 respondents) of them are college students and 10.5% (21 respondents) are high school graduate. There is 7% (14 respondents) are college graduate. The next group is 4.5% (9 respondents) of postgraduate and lastly 3% (6 respondents) that have studied less than high school.

Furthermore, the employment status of respondents has been listed. The total number of student is 155 respondents that contributed 77.5% in the questionnaire which is the highest among other options. The next group that contributed 14.5% (N=29) is employed respondents that follows by 4% of the respondents (N=8) is self-employed. Then, 2% (N=4) of respondents is unemployed. There are 2 respondents (1%) are unable to work and another 2 respondents (1%) are homemaker.

Lastly, the table shows four income levels of 200 respondents. There are 84.5% (169 respondents) are receiving less than RM2000 income which is the majority of the 200 sample. Besides, there are 10% (20 respondents) receive RM2000-RM5000 income and followed by 4.5% (9 respondents) of them are receiving RM5000-RM7000 income. Finally, there are only 2 respondents (1%) are receiving more than RM7000 income.

4.1.2   Respondent Shopping Details

Table 4.2 shows the respondent shopping details

Table 4.2 Respondent Shopping Details

Respondents' Shopping Details		Frequency	Percentage
Owning a smartphone	Yes	200	100%
	No	0	0%
Owning a tablet	Yes	113	56.5%
	No	87	43.5%
Main purpose of using mobile devices	Phone calling	24	12%
	Text message	52	26%
	Surfing web	45	22.5%
	Using apps	70	35%
	Playing games	9	4.5%
What is your average time spent on phone per day?	Less than 2 hours	13	6.5%
	2-4 hours	45	22.5%
	4-6 hours	54	27%
	More than 6 hours	88	44%
Frequency of shopping	Several time	91	45.5%
	Once per month	78	39%
	Once per week	31	15.5%

Source: Developed for the research

Based on table shown as above, there are 200 respondents own a smartphone
which hit 100% among the sample. Besides, there are 56% of the respondents
(113 respondents) are owning tablet which means there is more than half of

them own tablet. However, there are 43.5% (87 respondents) do not own tablet.

Next, there are 35% (70 respondents) are using mobile device to use apps which hit the highest percentage in the questionnaire. Follow by text message with 26% (52 respondents) and surfing web with 22.5% (45 respondents). The next purpose is phone calling which contributed 12% (24 respondents). Lastly, there is only 4.5% (9 respondents) use their mobile device to play games.

Furthermore, the above result presented that there are 44% (88 respondents) of them are spending more than 6 hours a day on their phone. Then, there are 27% (54 respondents) of them spend 4 to 6 hours and 22.5% (45 respondents) are spending 2 to 4 hours a day on using phone. There are only 6.5% (13 respondents) are spending less than 2 hours with their smartphones.

Lastly, the frequency of shopping has been categorized into three groups. It can be obviously seen that the highest frequency group is several times with 45.5% (91 respondents). Besides, there are 78 respondents (39%) shop only once per month. Lastly, out of 200 respondents, only 31 respondents (15.5%) shopping once per week.

4.1.3 Cross Tabulations

Table 4.3 has shown the correlation between respondents' gender and the main purpose of using mobile devices. The result presented that majority of the female respondent are using mobile devices to use apps; however, only a few of them spend time on playing games. By looking at the male respondent, their main purpose of using mobile devices is somehow similar with female

respondent. Most of the male respondent use apps and less male play game while using mobile devices.

Table 4.3 Respondent Gender & Main Purpose of Using Mobile Devices

		Main purpose of using mobile devices					Tota l	Perce ntage
		Phone calling	Text message	Surfin g web	Using apps	Playing games		
Respon dent Gender	Femal e	19	40	36	56	5	156	78%
	Male	5	12	9	14	4	44	22%
Total		24	52	45	70	9	200	100%
Percentage		12%	26%	22.5%	35%	4.5%	100 %	

Source: Developed for the Research

According to table 4.4, most of the respondents from 18-23 are spending more than 6 hours per day on their mobile phone. However, for respondents above age 35, majority of them spent 2-4 hours and few of them spent less than 2 hours which are different from other age range. Besides, most of the respondent age 24-29 and age 30-25 are spending only 2-4 hours on phone per day.

Table 4.4 Respondent Age & Average Time Spent on per day

		What is your average time spent on phone per day?					Percentage
		Less than 2 hours	2-4 hours	4-6 hours	More than 6 hours	Total	
Respo ndent Age	Below 18	0	2	2	3	7	3.5%
	18-23	4	20	42	73	139	69.5%
	24-29	4	12	9	9	34	17%
	30-35	1	4	1	3	9	4.5%
	Above 35	4	7	0	0	11	5.5%
Total		13	45	54	88	200	100%
Percentage		6.5%	22.5%	27%	44%	100%	

Source: Developed for the research

Based on table 4.5, it shows the correlation between four income levels and the frequency of shopping. The result obviously presented that most of the respondents receive less than RM2000 in a month; greater than half of these respondents only shop several time. It same goes to income level RM2000-RM5000 and RM5000-RM7000, most of the respondents shop several times only. However, for respondents' income level more than 7000, their frequency of shopping is once per month.

Table 4.5 Income Level & Frequency of Shopping

		Frequency of shopping				
		Several time	Once per month	Once per week	Total	Percentage
Income level	Less than RM2000	76	67	26	169	84.5%
	RM2000-RM5000	10	7	3	20	10%
	RM5000-RM7000	5	2	2	9	4.5%
	More than RM7000	0	2	0	2	1%
Total		91	78	31	200	100%
Percentage		45.5%	39%	15.5%	100%	

Source: Developed for the research

4.1.4   Descriptive Statistics

Table 4.6 has presented the descriptive analysis that included mean and standard deviation for dependents variables and independent variables. The result presents the highest mean is user interface (3.8088), and then followed by the dependent variable – consumer buying behaviour (3.7463). The third highest mean among the nine is mediator – consumer purchase intention (3.6570). Next, product price has scored 3.5033, a slightly higher than product price (3.5000), followed by expertise (3.4813), social presence (3.4260) and attractiveness (3.4160). Lastly, trustworthiness has the lowest mean with only

3.1425 which indicates that it has the smallest impact on consumer purchase intention.

In addition, the highest standard deviation is 0.95617 that scored by trustworthiness meaning that the data is more spread out. Followed by product price (0.88223), product usefulness (0.87269), attractiveness (0.86712), social presence (0.85215), expertise (0.83986), and the mediator – consumer purchase intention (0.76201). The second lowest standard deviation is user interface (0.74474), and the lowest is the dependent variable – consumer buying behaviour (0.70554) meaning that the data are clustered around mean.

Table 4.6 Descriptive Statistics on Variables

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Attractiveness	200	1.00	5.00	3.4160	.86712
Trustworthiness	200	1.00	5.00	3.1425	.95617
Expertise	200	1.00	5.00	3.4813	.83986
Social Presence	200	1.00	5.00	3.4260	.85215
User Interface	200	1.00	5.00	3.8088	.74474
Product Price	200	1.00	5.00	3.5033	.88223
Product Usefulness	200	1.00	5.00	3.5000	.87269
Consumer Purchase Intention	200	1.00	5.00	3.6570	.76201
Consumer Buying Behaviour	200	1.00	5.00	3.7463	.70554
Valid N (listwise)	200				

Source: Developed for the Research

4.2   Reliability Analysis

Based on the rule of thumb for interpreting alpha, it stated that when the value is more than 0.7 is considered acceptable and the closer Cronbach's alpha coefficient towards 1.0 is considered excellent which means the internal consistency of the items is great. According to table 4.7 reliability statistics, it has shown that the range of reliability is in between of 0.725 and 0.904. The highest Cronbach's Alpha coefficient has scored by trustworthiness (0.913). Then, attractiveness and social presence have the similar value which is 0.904 that ranked second highest among the variables; this means both variables have reached the excellent range. Followed by user interface (0.892), mediator – consumer purchase intention (0.886), product price (0.884), expertise (0.858), and product usefulness (0.856). The lowest Cronbach's Alpha coefficient is the dependent variable – consumer buying behaviour with 0.725 which considered acceptable according to the rule of thumb.

Table 4.7 Reliability Statistic

No	Construct	Cronbach's Alpha	No. of Items
1	IV : Attractiveness	0.904	5
2	IV : Trustworthiness	0.913	4
3	IV : Expertise	0.858	4
4	IV : Social Presence	0.904	5
5	IV : User Interface	0.892	4
6	IV : Product Price	0.884	3
7	IV : Product Usefulness	0.856	3
8	Mediator : Consumer Purchase Intention	0.886	5
9	DV : Consumer Buying Behaviour	0.725	4

Source: Developed for the research

4.3   Inferential Analysis

Based on Table 4.8, the relationship between independent variables (attractiveness, trustworthiness, expertise, social presence, user interface, product price, product usefulness), mediator (consumer purchase intention) and dependent variable (consumer buying behaviour) had been measured by the SPSS Statistics with the use of Pearson Correlation Coefficient. As shown in the data, the Pearson correlation is in

between 0.655 to 0.808, at the significant level of <0.001, which means the variables are having positive correlated relationship.

According to the result of analysis, the mediator – consumer purchase intention (0.808) have a significant positive correlation towards the dependent variable - consumer buying behaviour. Then, followed by the relationship of independent variables and mediator which are product usefulness (r = 0.780, p = <0.01), user interface (r = 0.733, p = <0.01), product price (r = 0.728, p = <0.01), expertise (r = 0.723, p = <0.01), social presence (r = 0.718, p = <0.01) and attractiveness (r = 0.717, p = <0.01). The lowest is trustworthiness with r value of 0.655 which means that it contains the weakest prediction power among the variables.

Table 4.8 Pearson Correlation Analysis

	Correlations									
		MEAN_AT	MEAN_TR	MEAN_EX	MEAN_SP	MEAN_UI	MEAN_PP	MEAN_PU	MEAN_CPI	MEAN_CBB
MEAN_AT	Pearson Correlation	1	.751**	.745**	.701**	.624**	.597**	.706**	.717*	.673**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
	N	200	200	200	200	200	200	200	200	200
MEAN_TR	Pearson Correlation	.751**	1	.739**	.740**	.549**	.625**	.703**	.655*	.559**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001	<.001	<.001	<.001
	N	200	200	200	200	200	200	200	200	200
MEAN_EX	Pearson Correlation	.745**	.739**	1	.742**	.705**	.654**	.716**	.723*	.598**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001	<.001	<.001	<.001
	N	200	200	200	200	200	200	200	200	200
MEAN_SP	Pearson Correlation	.701**	.740**	.742**	1	.682**	.699**	.684**	.718*	.610**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001	<.001	<.001	<.001
	N	200	200	200	200	200	200	200	200	200
MEAN_UI	Pearson Correlation	.624**	.549**	.705**	.682**	1	.667**	.681**	.733*	.659**

	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001	<.001	<.001	<.001
	N	200	200	200	200	200	200	200	200	200
MEAN_PP	Pearson Correlation	.597**	.625**	.654**	.699**	.667**	1	.694**	.728*	.667**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001		<.001	<.001	<.001
	N	200	200	200	200	200	200	200	200	200
MEAN_PU	Pearson Correlation	.706**	.703**	.716**	.684**	.681**	.694**	1	.780*	.587**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001		<.001	<.001
	N	200	200	200	200	200	200	200	200	200
MEAN_CPI	Pearson Correlation	**.717****	**.655****	**.723****	**.718****	**.733****	**.728****	**.780****	1	.808**
	Sig. (2-tailed)	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**		<.001
	N	200	200	200	200	200	200	200	200	200
MEAN_CBB	Pearson Correlation	.673**	.559**	.598**	.610**	.659**	.667**	.587**	**.808***	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	<.001	**<.001**	
	N	200	200	200	200	200	200	200	200	200
**. Correlation is significant at the 0.01 level (2-tailed).										

Source: Developed for the research

4.4   Multiple Linear Regressions

According to the Table 4.9, the R value is 0.860; R Square is 0.739; Adjusted R Square is 0.730. Based on the outcome of R Square, 73.9% of the variation in the mediator (consumer purchase intention) is affected by the independent variables (product usefulness, trustworthiness, product price, attractiveness, social presence, expertise). Then, the result shows that there is another 26.1% remain uninfluenced. However, the independent variables in this research study are still giving impact on the mediator.

Table 4.9 Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.860ᵃ	.739	.730	.39625

a. Predictors: (Constant), MEAN_PU, MEAN_UI, MEAN_TR, MEAN_PP, MEAN_AT, MEAN_SP, MEAN_EX

Source: Developed for the research

According to table 4.10 ANOVA, the result presents that the model is significant with F value of 77.704 and P value of <0.001. This means that there is very significant evidence on the null hypothesis. Therefore, the seven independent variables are having a significant relationship with the mediator.

Table 4.10 ANOVA

ANOVAᵃ						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	85.404	7	12.201	77.704	<.001ᵇ
	Residual	30.146	192	.157		
	Total	115.550	199			
a. Dependent Variable: MEAN_ConsumerPurchaseIntention						
b. Predictors: (Constant), MEAN_PU, MEAN_UI, MEAN_TR, MEAN_PP, MEAN_AT, MEAN_SP, MEAN_EX						

Source: Developed for the research

As shown in the table 4.11 coefficients, it can be obviously shown that there is a significant relationship between the independent variables and the mediator. The result of unstandardized coefficient is to identify how one unit change in the dependent variables influences the dependent variables. In this study, there are 0.160 changes on the attractiveness when there is a unit change in consumer purchase intention. -0.035 changes in the trustworthiness when there is a unit change in consumer purchase intention. 0.063 changes in the expertise when there is a unit change in consumer purchase intention. 0.088 changes in social presence when there

is a unit change in consumer purchase intention. 0.199 changes in user interface when there is a unit change in consumer purchase intention. 0.170 changes in product price when there is a unit change in consumer purchase intention. 0.258 changes in product usefulness when there is a unit change in consumer purchase intention

Table 4.11 Coefficients

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.442	.150		2.949	.004
	MEAN_AT	.160	.057	.182	2.817	.005
	MEAN_TR	-.035	.054	-.044	-.645	.520
	MEAN_EX	.063	.063	.069	.999	.319
	MEAN_SP	.088	.060	.099	1.467	.144
	MEAN_UI	.199	.062	.194	3.230	.001
	MEAN_PP	.170	.051	.197	3.366	<.001
	MEAN_PU	.258	.056	.296	4.603	<.001
a. Dependent Variable: MEAN_CPI						

Source: Developed for the research

The multiple regression equation is presented as follows:

Y = a + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + b6X6 +b7X7

Whereas:
Y = Consumer Purchase Intention
A = Constant term, Value of Y when X become zero
X1 = Dimension of Consumer Purchase Intention
B1 = Attractiveness
B2 = Trustworthiness
B3 = Expertise
B4 = Social Presence

B5 = User Interface

B6 = Product Price

B7 = Product Usefulness

Hence, the equation for multiple linear regressions has been developed as follow:

Consumer Purchase Intention = (0.442) + (0.160) (Attractiveness) + (-0.035) (Trustworthiness) + (0.063) (Expertise) + (0.088) (Social Presence) + (0.199) (User Interface) + (0.170) (Product Price) + (0.258) (Product Usefulness)

According to Table 4.12, Model Summary shown as below, the R-value is 0.808; R Square is 0.652 and Adjusted R Square is 0.650. Based on the result of R Square, there is 65.2% of the variation in the dependent variable (Consumer Buying Behaviour) is affected by the mediator (Consumer Purchase Intention). Besides, there is another 34.8% remain uninfluenced. However, the mediator in this research study is still giving impact on the dependent variable.

Table 4.12 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.808[a]	.652	.650	.41722
a. Predictors: (Constant), MEAN_CPI				

Source: Developed for the research

Based on table 4.13 ANOVA, the outcome shows that the model is significant with F value of 371.062 and P value of <0.001. This is obviously shown that the mediator is having a significant relationship with the dependent variable.

Table 4.13 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.593	1	64.593	371.062	<.001[b]
	Residual	34.467	198	.174		
	Total	99.060	199			
a. Dependent Variable: MEAN_CBB						
b. Predictors: (Constant), MEAN_CPI						

ANOVA[a]

Source: Developed for the research

The equation is formed as follows:

Consumer Buying Behaviour = (1.012) + (0.748) (Consumer Purchase Intention)

The table below shows the unstandardized coefficient beta value in this research. It can be seen that the Consumer Purchase Intention has scored 0.748.

Table 4.14 Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.012	.145		6.981	<.001
	MEAN_CPI	.748	.039	.808	19.263	<.001
a. Dependent Variable: MEAN_CBB						

Source: Developed for the research

4.5   Test of Significant

Hypothesis 1

H1: There is a positive relationship between attractiveness and consumer purchase intention.

Based on Table 4.6, the p-value of attractiveness is 0.005 which is lower than the significant level of 0.05; therefore, H1 is accepted. There is a positive relationship between attractiveness and consumer purchase intention

Hypothesis 2

H2: There is a negative relationship between trustworthiness and consumer purchase intention.

Based on Table 4.6, the p-value of trustworthiness is 0.520 which is higher than the significant level of 0.05; therefore, H2 is rejected. There is a negative relationship between trustworthiness and consumer purchase intention

Hypothesis 3

H3: There is a negative relationship between expertise and consumer purchase intention.

Based on Table 4.6, the p-value of expertise is 0.319 which is higher than the significant level of 0.05; therefore, H3 is rejected. There is a negative relationship between expertise and consumer purchase intention.

Hypothesis 4

H4: There is a negative relationship between social presence and consumer purchase intention.

Based on Table 4.6, the p-value of social presence is 0.144 which is higher than the significant level of 0.05; therefore, H4 is rejected. There is a negative relationship between social presence and consumer purchase intention.

Hypothesis 5

H5: There is a positive relationship between user interface and consumer purchase intention.

Based on Table 4.6, the p-value of user interface is 0.001 which is lower than the significant level of 0.05; therefore, H5 is accepted. There is a positive relationship between user interface and consumer purchase intention.

Hypothesis 6

H6: There is a positive relationship between product price and consumer purchase intention.

Based on Table 4.6, the p-value of product price is <0.001 which is lower than the significant level of 0.05; therefore, H6 is accepted. There is a positive relationship between product price and consumer purchase intention.

Hypothesis 7

H7: There is a positive relationship between product usefulness and consumer purchase intention.

Based on Table 4.6, the p-value of product usefulness is <0.001 which is lower than the significant level of 0.05; therefore, H7 is accepted. There is a positive relationship between product usefulness and consumer purchase intention.

Hypothesis 8

H8: There is a positive relationship between consumer purchase intention and consumer buying behaviour.

Based on Table 4.6, the p-value of consumer purchase intention is <0.001 which is lower than the significant level of 0.05; therefore, H8 is accepted. There is a positive relationship between consumer purchase intention and consumer buying behaviour.

4.6 **Conclusion**

In conclusion, chapter 4 has evaluated and interpreted the questionnaire that was collected from 200 respondents around Malaysia by using the proposed data analysis tools. Besides, the summary and conclusion of this chapter will be discussed in chapter 5.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

In this chapter, the findings in previous chapters and conclusion are drawn based on the result. The three objectives mentioned in Chapter 1 are to be discussed to determine if this research has reached those objectives. Besides, implications of this research are highlighted. Then, the limitations and recommendations of the study will be listed out. According to the findings in Chapter 4, there are four hypotheses show that the independent variables (attractiveness, user interface, product price, product usefulness) are having a positive relationship with the mediator (consumer purchase intention). Meanwhile the mediator (consumer purchase intention) has a significant relationship with dependent variable (consumer buying behaviour). However, there are three variables (trustworthiness, expertise, social presence) have negative relationship with the mediator (consumer purchase intention).

5.1 Discussion on Objectives

5.1.1 Discussion on 1st Objective

The first objective that developed in the beginning of this research study is to identify the factors affecting the effectiveness of mobile advertising on consumers' purchase intention. According to the result shown in Multiple Linear Regression, there are four factors that are influencing the consumers' purchase intention which are attractiveness, user interface, product price and product usefulness. The result displayed that the four factors scored 0.005, 0.001, <0.001, and <0.001 respectively, which are lower than the significant level of 0.05. According to the Theory of Hypothesis Testing developed by Jerzy Neyman and Egon Pearson, when the p-value is 0.05 or lesser, the result

is considered significant; however, if it is greater than 0.05, the result is considered non-significant. Hence, the four variables (Attractiveness= 0.005, User Interface=0.001, Product Price=<0.001, Product Usefulness=<0.001) are lower than 0.05, which means they are statistically significant. This means that the hypothesis is being supported. In other words, the four independent variables are giving impact on the mediator, which is the consumer purchase intention. The result has obviously shown that attractiveness, user interface, product price and product usefulness are affecting the effectiveness of mobile advertising on consumer's purchase intention. As a result, the first objective in the research has been accomplished.
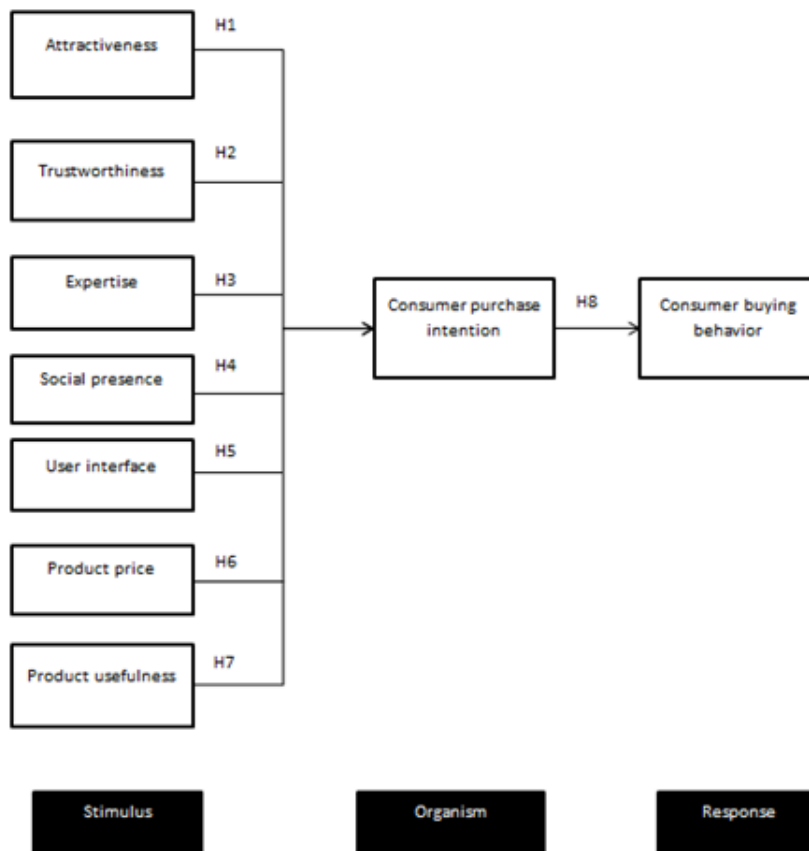
5.1.2   Discussion on 2nd Objective

The second objective established for this research is to develop a research model based on the S-O-R model that could identify the factors that influence the effectiveness of mobile advertising. Therefore, a research framework has been proposed from the modification of the S-O-R model to achieve this objective.

Based on the S-O-R model that was developed by Lee and Chen in 2021, the five independent variables, also called the 'stimulus', namely attractiveness, trustworthiness, expertise, product usefulness and product price are adopted. This is because these five variables are able to evaluate the effectiveness of mobile advertisement. Besides, the 'organisms', which are the perceived enjoyment and perceived usefulness have been removed and replaced by the modified Theory of Reasoned Action model. The organism (O) has been replaced by the consumer's purchase intention as it could meet the objectives. Therefore, the consumers' purchase intention is able to act as the standard to evaluate its effectiveness. Then, the response (R), also the dependent variable that developed by Lee and Chen which is urge to buy impulsively also has

been modified to the dependent variable in Theory of Reasoned Action that developed by Tsang et al. which is the consumer buying behaviour. This is to investigate how the consumer purchase intention can shape their buying behaviour and also to test the relationship between them. Therefore, the second objective is reached in this study as an enhanced model has successfully developed to identify the factors that influence the effectiveness of mobile advertising. The enhanced S-O-R model is shown in the below diagram.

Figure 5.1 Research Framework

Source: Developed for the research

5.1.3   Discussion on 3rd Objective

The last objective that was created in this study is to analyse the factors used in the proposed research model. To accomplish this objective, data analysis tools are used to report findings and conduct interpretations. Hence, questionnaires had been distributed to 200 respondents around Malaysia to collect data which would help in achieving the objectives. After data has been collected, IBM SPSS Statistics is used to perform quantitative analysis to evaluate the data that collected from the questionnaire. This research has utilized SPSS to conduct descriptive analysis, reliability test, multiple regression analysis, and Pearson Correlation Analysis. By carrying out those analyses, the result can be presented in the form of a table to ease the researchers in analysing those data. By looking into the result displayed, the relationship between variables can be determined, as well as the significance of each hypothesis. Therefore, each factor that is used in the proposed research framework in this research has been analysed by utilizing those data analysis tools. Besides, the result found out that people are more concerned about the attractiveness, user interface, product price and product usefulness in the mobile advertisement. Meanwhile, there are less people who care about the trustworthiness and user interface in mobile advertisements. This same goes to the expertise of endorsers; it does not give impact on the consumers' purchase intention. As a result, the third objective is reached by make analysis on the factors used in the proposed research model.

5.2   Implication of Study

In this section, research implications are highlighted based on the previous findings and results. The new research framework has been used in this study to investigate the consumers' behaviour towards mobile advertising during the National Recovery

plan. Therefore, there are two implications of the study that will be discussed including theoretical implication and managerial implication.

5.2.1   Theoretical Implication

The findings in this research study are contributing theoretically to the scholar and future research.

The National Recovery Plan has been implemented in these two years due to the outbreak of COVID-19 Pandemic; there is no doubt that this is a trending issue that is being concerned by many people. This is because the pandemic has brought huge changes to every party in Malaysia, which same goes to the changes in consumers. There is uncertainty in consumers' behaviour that is caused by the changing environment in society. Therefore, there is less research conducted to investigate the consumers' behaviour under this particular circumstance. As a result, the research that was conducted in this study is able to enhance the understanding of factors influencing consumers' behaviour towards mobile advertising and fill some of the gaps in the literature. Besides, this study also can act as a reference for future study, with the latest data that support the hypothesis; it is believed that it could assist researchers and scholars to investigate in related fields.

5.2.2   Managerial Implication

The second implication that could be contributed by this research is managerial implication. By understanding the relationship between the factors is able to help businesses in making decisions. As the Malaysia government is implementing plans and incentives to move Malaysia into a digital society, it is giving a huge impact to the mobile advertising industry. Therefore, mobile advertising is slowly becoming more critical to businesses as it is one of the major tools to communicate with consumers. It is becoming a significant part

of a business to promote the existing products or services; hence understanding consumer's behaviour towards it can improve the performance of an organization.

This study found that consumers are more concerned about attractiveness, user interface, product price and product usefulness. However, less people care about trustworthiness, user interface and expertise of endorsers. Hence, businesses and those industry players can construct a strategy based on those results to increase the effectiveness of mobile advertisement. Besides, cost can be minimized to invite endorsers or famous celebrities as consumers are not much affected by this factor. Then, the process of shaping consumers' behaviour also can be determined by referring to this study which can be helping businesses to make predictions on consumer action and thus can design the marketing plan based on the findings.

5.3   Limitation of Study

Although this research may be significant to various parties, it contains several shortcomings that are influencing the result of findings.

5.3.1   Lack Investigation on Consumers in Different Phases

The present research is carried out under the National Recovery Plan, with the objective to investigate consumers' behaviour towards mobile advertising. There are four phases included in the National Recovery Plan; this research covered all the four phases, which means all the states in Malaysia are consisted. However, this research did not distinguish the four phases to study on the consumers' behaviour that staying in different states with different phases. This may lead to the inaccurate result as findings of all states are being conflated.

5.3.2   Sampling Bias

The data collection method that was chosen to be conducted was convenience sampling. This is because it is a simple method for collecting data which may require a short period of time and low budget. The collection method that is used in this research is by distributing questionnaires to samples in researchers' close proximity and through online platforms. The convenience sampling is easy to be conducted; however, it may result in the sampling bias. By conducting this method, it is unable to generalize the result to the whole population; hence, there is bias that occurs in the finding in this research. As a result, most of the respondents are students and are from Selangor. It is obvious that it could not be representative of this research's target population which is Malaysian and the result is biased due to the unequal distribution of questionnaire.

5.4   Recommendations

Some recommendations are presented for future researchers to be taken into consideration.

5.4.1   Explore on Different Phases

Future researchers are recommended to investigate consumers' behaviour under the National Recovery Plan according to the four phases. This means that the consumers' response from the four phases should be separated so that it could reach the objective to investigate deeper on the changes of consumers' behaviour. Besides, the differences of consumers' behaviour from different states and phases are able to be compared and thus could look into the

difference impact of the National Recovery Plan. Plus, it is able to give greater insight into the new consumer behaviour.

5.4.2   Avoid Convenience Sampling

Due to the sampling bias that is caused by convenience sampling, researchers should avoid it while conducting the relevant research when there is a longer duration and more resources available to complete the study. Therefore, it is recommended for the researchers to conduct other sampling methods such as random or stratified sampling. By using the random sampling method, researchers can select the participant at random which means everyone contains an equal chance of being selected in the sample group. Besides, stratified sampling can reflect the important population features in the sample. In conclusion, the both sampling methods are suitable for conducting the relevant research as they are able to study on all the four phases under the National Recovery Plan.

5.5   Conclusion

In this research, the three objectives that developed in the beginning of study have been achieved by using the proposed research framework and different types of data analysis tools. There are seven independent variables, one mediator and one dependent variable that have been analysed by pilot test, descriptive analysis, reliability test, and inferential analysis which contain of Pearson correlation coefficient and multiple regression analysis. The result shows that attractiveness, user interface, product price, and product usefulness are having positive relationship with consumer purchase intention while consumer purchase intention also has positive relationship with consumer buying behaviour. Lastly, the implications, limitation and recommendations also had been discussed in Chapter 5.

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Consumer Behaviors towards Mobile Advertising during National Recovery Plan

Dear respondent,

My name is Wong Shi Hui, a final year student currently pursuing Bachelor of International Business (Hons) at Universiti Tunku Abdul Rahman. I am conducting a research titled "Consumer Behaviors towards Mobile Advertising during National Recovery Plan" for my Final Year Project (FYP).

The purpose of this research is to investigate the factors affecting the effectiveness of mobile advertising on consumers' purchase intentions and the changes in consumers' behavior during the National Recovery plan.

This questionnaire consists of two sections, which are Section A and Section B. It would require you to spend approximately 10-15 minutes completing it. The aim of this questionnaire is to collect data for academic purposes only; hence, all of the information will be kept PRIVATE and CONFIDENTIAL under the Personal Data Protection Act (PDPA) 2010.

Thank you for participating in this questionnaire. Your honest feedback is important in this research. I really appreciate your time and cooperation.

Principal researcher
Name : Wong Shi Hui
Student ID : 1801800
Email : shihui2511@1utar.my

Supervisor
Name : Dr. Seah Choon Sen

Section A : Demographic Profile

This section consists of 12 questions. Please answer all the questions by ticking (√) in the blanks with the best alternative in the boxes given.

Gender *

○ Male

○ Female

Age *

○ Below 18

○ 18-23

○ 24-29

○ 30-35

○ Above 35

Ethnicity *

○ Malay

○ Chinese

○ Indian

○ Others

Location *

○ Selangor

○ Sarawak

○ Negeri Sembilan

○ Kedah

○ Sabah

○ Pahang

○ Perak

○ Johor

○ Terengganu

○ Kelantan

○ Malacca

○ Perlis

○ Penang

Education *

○ Less than high school

○ High school graduate

○ College student

○ College graduate

○ Bachelor's degree

○ Postgraduate

Employment status *

○ Employed

○ Self-employed

○ Student

○ Homemaker

○ Unemployed

○ Retired

○ Unable to work

Income level *

○ Less than RM2000

○ RM2000 - RM5000

○ RM5000 - RM7000

○ More than RM7000

Owning a smartphone *

○ Yes

○ No

Owning a tablet *

○ Yes

○ No

Main purpose of using mobile devices *

○ Phone calling

○ Text message

○ Surfing web

○ Using apps

○ Playing games

What is your average time spent on phone per day? *

○ Less than 2 hours

○ 2-4 hours

○ 4-6 hours

○ More than 6 hours

Frequency of shopping *

○ Several times

○ Once per month

○ Once per week

Back   Next   Clear form

Section B : Construct Measurement

In this section, respondents are required to tick (√) relevant response box based on your best
knowledge, with the scale below :

1 - Strongly Disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly Agree

Mobile advertisement gives me a good feeling *

1	2	3	4	5
○	○	○	○	○

Mobile advertisement is attractive *

1	2	3	4	5
○	○	○	○	○

Mobile advertisement catches my attention *

1	2	3	4	5
○	○	○	○	○

I feel the mobile advertisement is friendly *

1	2	3	4	5
○	○	○	○	○

I feel the mobile advertisement is likable *

1	2	3	4	5
○	○	○	○	○

I feel the mobile advertisement is dependable *

	1	2	3	4	5
	○	○	○	○	○

I feel the mobile advertisement is honest *

	1	2	3	4	5
	○	○	○	○	○

I feel the mobile advertisement is trustworthy *

	1	2	3	4	5
	○	○	○	○	○

I feel the mobile advertisement is sincere *

	1	2	3	4	5
	○	○	○	○	○

I feel the mobile advertisement is experienced *

1	2	3	4	5
O	O	O	O	O

I feel the mobile advertisement is providing knowledge *

1	2	3	4	5
O	O	O	O	O

I feel the product in mobile advertisement is qualified *

1	2	3	4	5
O	O	O	O	O

I feel the mobile advertisement is skilled *

1	2	3	4	5
O	O	O	O	O

I feel there is a sense of human contact in the mobile advertisement *

1	2	3	4	5
◯	◯	◯	◯	◯

I feel there is a sense of personalness in the mobile advertisement *

1	2	3	4	5
◯	◯	◯	◯	◯

I feel there is a sense of sociability in the mobile advertisement *

1	2	3	4	5
◯	◯	◯	◯	◯

I feel there is a sense of human warmth in the mobile advertisement *

1	2	3	4	5
◯	◯	◯	◯	◯

I feel there is a sense of human sensitivity in the mobile advertisement *

	1	2	3	4	5
	O	O	O	O	O

The design of mobile advertisement site is convenient to search for a product/service *

	1	2	3	4	5
	O	O	O	O	O

The mobile advertisement site is convenient to order for a product/service *

	1	2	3	4	5
	○	○	○	○	○

The display of mobile advertisement site is easy to navigate wanted pages *

	1	2	3	4	5
	○	○	○	○	○

The illustration of mobile advertisement sites is user friendly and attractive *

	1	2	3	4	5
	○	○	○	○	○

Mobile advertisement offers product at reasonable price *

	1	2	3	4	5
	○	○	○	○	○

Discounted prices are very cheap on mobile advertisement *

1	2	3	4	5
◯	◯	◯	◯	◯

The product price on mobile advertisement is economical *

1	2	3	4	5
◯	◯	◯	◯	◯

The product in mobile advertisement is necessary *

1	2	3	4	5
◯	◯	◯	◯	◯

The product in mobile advertisement is beneficial *

1	2	3	4	5
◯	◯	◯	◯	◯

The product in mobile advertisement fulfils a need *

	1	2	3	4	5
	○	○	○	○	○

I believe that mobile advertising helps raise our standard of living *

	1	2	3	4	5
	○	○	○	○	○

I believe that mobile advertising helps me find products that match my
personality and interests *

	1	2	3	4	5
	○	○	○	○	○

I believe that mobile advertising helps me buy the best brand for a given
price *

	1	2	3	4	5
	○	○	○	○	○

I believe that mobile advertising influences my purchase intention *

1	2	3	4	5
○	○	○	○	○

I am willing to try on the advertised product in mobile advertisement *

1	2	3	4	5
○	○	○	○	○

I will be likely to purchase the advertised product in mobile advertising *

1	2	3	4	5
○	○	○	○	○

I will purchase the advertised product if it is necessary only *

1	2	3	4	5
○	○	○	○	○

I will browse the online store in mobile advertising to get what I want to
buy *

	1	2	3	4	5
	○	○	○	○	○

I will read the mobile advertising message and consider the advertised
product *

	1	2	3	4	5
	○	○	○	○	○

APPENDIX D

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF ACCOUNTANCY AND MANAGEMENT
UNDERGRADUATE FINAL YEAR PROJECT
Final Year Project Assessment Form - Report

Final Year Project Title:　　　　　　　　　　**FYP No.**　|　**53/2110**

Consumer Behaviour towards Mobile Advertising during National Recovery Plan

Name:	Wong Shi Hui	Student ID:	1801800

Assessment	Criteria	Marks (%)	Awarded (%)	Subtotal (%)
Introduction	Background of study	5		
	Problem definition/ research problem	5		
	Objective(s) of study	5		
	Significance of study	5		
Literature Review:	Review of theoretical/empirical model/ conceptual framework	10		
	Hypotheses / propositions development	5		
Research method	Data collection/sources	5		
	Research instruments/techniques	5		
	Theoretical/ empirical model/ conceptual framework	10		
Results and interpretation	Presentation of results (tables, figures, etc.)	5		
	Interpretation on major findings	15		
Conclusion and policy implications	Summary	5		
	Discussion and conclusion	5		
	Limitation and recommendation	5		
Overall presentation of the report	Referencing	5		
	Writing skills	5		
	TOTAL	**100**		

Remarks:	*Please circle*	**Supervisor**	**2ⁿᵈ Examiner**
	Signature:		
	Name:	Dr Seah Choon Sen	
	Date:	27ᵗʰ April 2022	

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	Limitation and recommendation	5		
Overall presentation of the report	Referencing	5		
	Writing skills	5		
	TOTAL	**100**		

Remarks:	*Please circle*	**Supervisor**	**2nd Examiner**
	Signature:		
	Name:	Dr Goh Hong Lip	
	Date:	27th April 2022	