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Student's Name & ID	Tan Wai Sung (I17014288)
Lecturer	Dr. Wong Chee Hoo
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Purchase Intention on Water Purifier in Malaysia

Abstracts

Water purifier has become a necessity in every household in these days due to accessing

to clean water is a vital issue in these days. The water purifier companies are facing

intense competition and thus, it is very difficult for the companies to maintain an

advantage position by offering good products at reasonable price and with consumer

centric. They have to be better understand on purchase intention of consumers in order to

be able to reap profits. The aim of this research was to understand purchase intention of

consumers on water purifier in Malaysia. In this paper, there was few factors that

influencing purchase intention of consumers had been studied and the structural

relationship among the purchase intentions that consumers exhibit on water purifier had

been studied as well through cross-sectional quantitative which including questionnaire

with 200 samples size that distributed in Malaysia. Data was collected from 200

respondents and is analysed descriptively. For hypotheses testing, it was tested by using

simple regression analysis. The results will be analysed from the view point of consumers

whether they are influenced by the factors of conveniences, security, social influence and

speed or whether these factors are significantly influence their purchase intention on

water purifier in Malaysia. This study suggests that for the company to be competitive in

the market, the factors studied should be take into consideration for enhancing their

business.

Keywords: Water Purifier, Malaysia, Purchase Intention

Abbreviation

PI	Purchase Intention
WP	Water Purifier
DV	Dependent Variable
IV	Independent Variable
CV	Conveniences
SE	Security
SI	Social Influence
SP	Speed
TPB	Theory of Planned Behaviour
ANOVA	Analysis of Variance
eWOM	electronic word-of-mouth

Chapter 1 - Introduction

1.0 Overview

Chapter 1 provides an overview about consumers' purchase intention on water purifier in Malaysia. It starts with the background of the study which related to the variables that will help to identify the problem statement, research objectives and research questions. At the end of this chapter, it includes operational definitions that used during the study, and all the key terms will be defined accordingly.

1.1 Background of the study

In this new era, there were many attempts have been made on the current competitive market and this is based on customer orientation which has forced producers to produce goods and services based on customer needs (Bello and Sze, 2016). For companies to attain business success, it is crucial that managers need to understand purchase intention of consumers because understanding consumers' purchase intentions are essential in planning and programming the marketing system (Manali, 2015). Generally, purchase intentions can be referred to their choices, purchase or consumption of the goods and services to satisfy their wants and purchase intention indicates on how consumer decisions are made, how the goods and services are used (Ali and Ramya, 2016).

To date, many researchers believe that purchase intention of consumers have been diverse and extensive due to the changing of society, trends, economics and technology (Solomon, 2013). Many companies are struggling for their business success and its presence in this very competitive market, those innovations, advancing technology, globalization and increasing in economic are in fact driving the company for sustainability and achieving their business success (Manali, 2015). Profitability is the only sustainable element for companies that using effective marketing strategies in getting appropriate consumer insights to prospective consumers for its products (Patikar and Thangasamy, 2014).

With increasing technology advancement and easily accessible to the online information, consumers are now become more conscious of health and therefore, many products' development is designed and innovated according to the consumers everyday lifestyle needs (Chang, Hsu and Lin, 2016).

1. 2 Problem Statement

To date, water purifier's consumption is on rapid increase in those big cities, towns, educational institutions, hospitals and etc and the water purifier market has been considered as a market device that used to purify water or removing harmful substances, chemicals, pathogens, microorganisms and other dissolved solids and to make it portable (Das, 2013).

In today's world, getting clean water has become a vital issue, it involved multiple aspects and more than one-third of the world's renewable freshwater is used for agricultural, industrial, or domestic use purposes, and most of these uses release compounds back into the water that make it not safe to consume, therefore, many people are addicted to methods that poison surrounding bodies of water and for this reason, it is now generally accepted that many people are eager to get clean and safe water in day-to-day life (Ramya and Thilagavathi, 2015) However, the consumer awareness which refers to the knowledge of the consumer on particular product or company, would always influencing their purchase intention towards the product (Srinivas, 2015). Hence, the problem statement is to have better understanding the purchase intention of consumers towards water purifier in Malaysia. Malaysia is a country where consist of multiple ethnic and cultural difference might have different purchase intentions of consumers towards the product (Letchumanan and Sam, 2016). Thus, it is very crucial to understand the purchase intentions of consumer towards water purifier in Malaysia in order to have effective marketing strategies to retain market share and strive for business growth (Guansundari, Kathirvel, and Rengarajan et al. 2018).

Malaysia is in a fast-changing environment in the urbanization and the growth of population. This fast-changing environment has led to the demand for water increased and also the level of water pollution increased. These factors have been seriously damaged the quality of water in Malaysia.

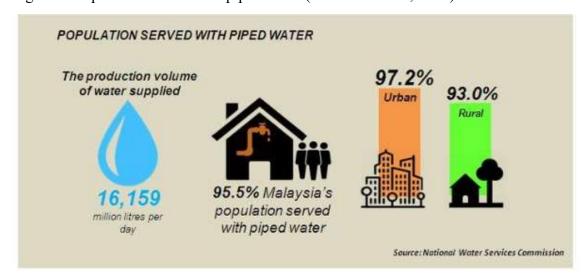
All the human, domestic, industrial, commercial and transportation wastes leak into the water supply. As such, the water sources were polluted and eventually create serious health hazards (The Borgen Project, 2017).

Figure 1: Malaysia Population 2019 (Source: Department of Statistics Malaysia, 2019)



The demand of clean water sources has grown synchronously with the population growth (32.6 million people in 2019) with the proportion of urban population 76.2%. According to DOSM (2019), 95.7% of Malaysia population which can access to the piped water services in which 97.2% was the population in urban area and 93% was the population in rural area. To meet the demand of clean water, supply of raw water directly from rivers and storage dams has shown an increase of 5.7 per cent and 28.0 per cent daily in 2018 as compared to 2014 (DOSM, 2019).

Figure 2: Population served with piped water (Source: DOSM, 2019)



According to Yuk, Shin and Khia et al. (2015), in Malaysia, the water treatment system provided by the government is at a very basic level, which including screening, coagulation and flocculation, sand filtration, disinfection (chlorination) and fluorination. However, with the development, especially the increasingly rampant industrialization, due to the existence of new contaminants, the tap water supplied to households has become more and more complex.

Figure 3: Water Treatment System in Malaysia (Source: Yuk, Shin, Khia 2015)



According to the global water purifier market report (2019), the global water purifier market size was at \$31,013 million in 2018 and is expected to grow to \$58,322 million in 2025, a growth on CAGR of 9.0% from 2019 to 2025 (Bhandalkar and Kadam, 2019). In Malaysia water purifiers market report stated that the water purifier market size is at \$301 million in 2017 and is projected to grow at a CAGR of 9% or more, to exceed \$510 million in 2023, the launching of comprehensive water purification service campaigns are coupled with the higher standard of living are likely to further boost the demand of water purifiers in Malaysia in the coming years (Techsci Research, 2018)

Figure 4: Malaysia Water Purifier Market Size, By type, By value 2013 – 2023F (Techsci Research, 2018)



1.2.1 Competitive Landscape

According to the type of water purifier, the Malaysian water purifier market can be roughly divided into countertop, sink and faucet water purifiers. The demand for countertops is very popular nationwide because it offers the option of supplying cold and hot water through the system. The second most popular are under-counter water purifiers because they save kitchen space and are mainly deployed in compact houses. Among various technologies, in terms of value, reverse osmosis (RO) dominates the Malaysian water purifier market, because the water supplied to Malaysian households contains a large amount of total dissolved salts, which needs to be reduced to a potable water content. This is done by using reverse osmosis (RO) technology. Among of those ultrafiltration technologies, ultrafiltration technology is inexpensive and can be used as a pre-treatment for reverse osmosis (RO). Therefore, it is expected that the demand will increase over the forecast period. In 2017, Western Malaysia accounted for the largest share of the Malaysian water purifier market. In addition, Kuala Lumpur's future residential projects may further boost the country's demand for residential water purifiers in the next few years. (Techsci Research, 2020)

Some of the major players in Malaysia water purifier market are Woongjin Coway (M) Sdn Bhd. (Coway); Cuckoo International (MAL) Sdn Bhd (Cuckoo); Aqua Kent RO Malaysia (Aqua Kent); NEP Holdings (Malaysia) Berhad (Nesh), 3M Malaysia Sdn. Bhd., Amway (Malaysia) Sdn. Bhd., Panasonic Malaysia Sdn. Bhd., PureGen Technology Sdn Bhd, Nikom Global Marketing (M) Sdn. Bhd., and Xiaomi Malaysia Sdn Bhd.,

Water Purifier Brands in Malaysia

Coway



युष्ट ८१ १ ४

Cuckoo



Diamond



Nesh



Aqua Kent









Xiaomi



Amway





Nikom **Panasonic**





Among the brands of water purifier in Malaysia, Coway captured the largest market share according to techsci research, 2017. The company provides affordable and high-quality category water purifiers, mainly for point-of use applications.

Figure 5: Competitor comparison by Coway

Self Service



Top of the world!

Call for Service

Call for Service

Service

Self Service

Now, the water purifier has become one of the expensive necessities that every family must have today. Companies usually charge very high fees for their water purifiers because they usually provide additional services after the sale. This is why today's consumers must choose wisely without making wrong decisions.

1.2.2 Effect on Malaysia Economic

Service

According to Index Mundi (2020), the value for household final consumption expenditure in Malaysia was USD830 million as of 2018 and its annual growth 7.95% in 2018. It is expected to grow further in 2020 and in near future.

Figure 6: Household consumption final expenditure (USD)

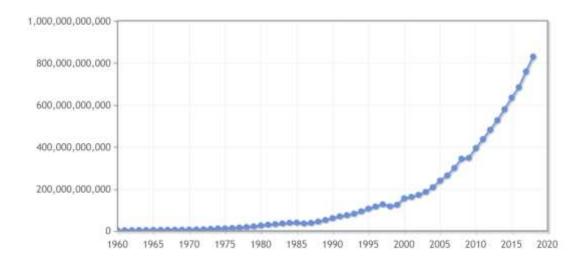


Figure 7: Household consumption final expenditure (Annual Growth %)

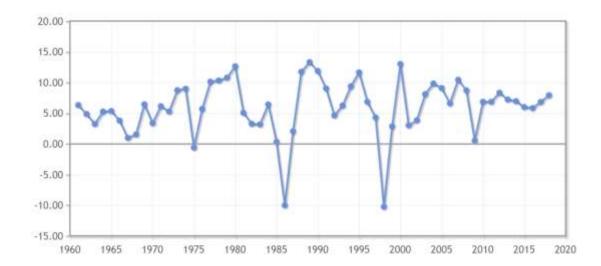
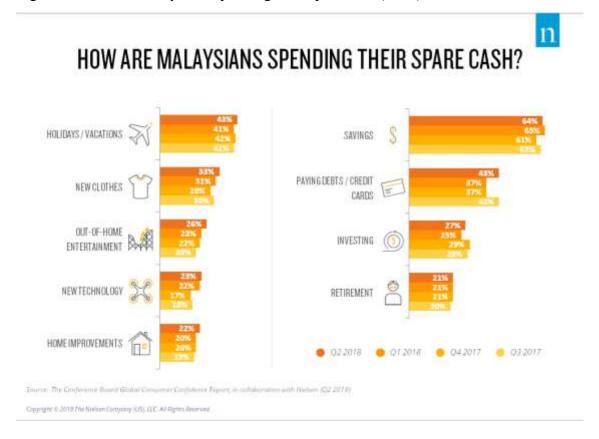


Figure 8: How are Malaysians spending their spare cash (2018)



According to Neilson's research (2018), Asian consumers are the world's most avid savers in this quarter, and Malaysia accounts for about 64% of the world's top ten savers. An average of 53% of consumers globally said they spent extra cash on basic living expenses.

A simple water purification system not only to improve the health of the community, but it also stored properly of any excess water, which will reduce the time and energy consumption required for water collection. The time spent on collecting water in the past can be allocated to more productive activities such as work, food production and childcare, increasing income, nutrition and family health. Most of the Malaysians prefer tap drinking water. However, the poor-quality tap water supply in majority of the urban households has led to an increasing demand for water purifiers. The people 's concern for health and well-being in the country has led to an awareness to adopt for good hygiene practices.

As mentioned, the water purification industry is a growing business worth more than RM1.2 billion in 2017. The lucrative business had drawn in many new players. Thus, the need to understand the factors that can significantly predict purchase intention of water purifiers are very much sought after especially by the new entrants. The review of the literature found that there is a gap in this area such as what are the factors that can significantly predict the purchase intention of water purifier in Malaysia. Thus, this study was carried in closing the gap.

1.3 Research Objective

Broad Objective: The aim of this study is to have better understanding about the purchase intention of consumers on water purifier in Malaysia.

Specific Objective: Specific objective is to understand the underlying factors which may influence the water purifier business due to the transformation of fast-changing environment and also it is to gain a significant insight on the factors that influencing consumer purchase intention towards water purifier for the business owners which to help them to grow their business.

RO1: To determine whether conveniences factor has a significant relationship with purchase intention on water purifier in Malaysia.

RO2: To determine whether security factor has a significant relationship with purchase intention on water purifier in Malaysia.

RO3: To determine whether social influences factor has a significant relationship with purchase intention on water purifier in Malaysia.

RO4: To determine whether speed factor has a significant relationship with purchase intention on water purifier in Malaysia.

1.4 Research Questions

Conveniences, security, social influences and speed are the important factors of purchase intention. The research questions are to find out whether the abovementioned factors have established a significant relationship with purchase intention of consumers on water purifier in Malaysia.

Below are the research questions which aligned to research objectives as per abovementioned:

RQ1: Will conveniences factor has a significant relationship with purchase intention of consumers on water purifier in Malaysia?

RQ2: Will security factor has a significant relationship with purchase intention of consumers on water purifier in Malaysia?

RQ3: Will social influences factor has a significant relationship with purchase intention of consumers on water purifier in Malaysia?

RQ4: Will speed factor has a significant relationship with purchase intention of consumers on water purifier in Malaysia?

1.5 Significance of the Study

The purpose of this study is to contribute to the scholars and to the water purifier businesses. It may help to provide underlying-issues of purchase intention of consumers upon purchase water purifier and provides the prevailing market opportunities.

1.5.1 Significance to Academia

The completion of this study will help to fill in the knowledge gap which related to purchase intention and this study will provide certain essentialities which are helpful through complementing insight literature for future analysts to have better understanding on the variables that will influence purchase intention of consumers on water purifier in Malaysia.

1.5.2 Significance to the Industry

In reference to this study, it also provides some additional insight for water purifier business owners who are planning to penetrate the water purifier market by having better understanding on the possible factors whether it is because of conveniences, security, social influences and speed whether these factors will influence purchase intention of consumers. Furthermore, this study may be useful for industry to review on their existing business operation after gone through the discussed factors in this study.

1.6 Scope of the Study

The scope of this study is focused on certain elements that influencing purchase intention of consumers and it is focused on purchase intention of consumers towards water purifier in Malaysia. In addition, this study is focused and concentrate only on the independent variables that are conveniences, social influences, security and last but not least speed which will influence purchase intention of consumers on water purifier in Malaysia.

1.7 Limitations of the Study

The first limitation of this study will be the implementation of data collection method. This is because the researcher was not had much experience in primary data collection and the data was collected through online survey only. Secondly, the sample size of this study is too small compared with the large sample size, it could not determine and identify the important relationships in the data set. Large samples may produce more accurate results. Lastly, the prior research of the context in this study is limited because water purifier is a recent phenomenon.

1.8 Operational Definition

The purpose of this section is talked about the key terms and other related ideas to develop an understanding for the readers. Therefore, the definitions for each term is explained as per below table 1.

Table 1.8: Operational Definitions

Key Terms	Definitions
Purchase Intention <dv></dv>	Purchase intention is an implication of promise to oneself to purchase the product again whenever one makes next trip to the market. It is depicts the impression of customer retention (Goyal, 2014)
Conveniences (CV) <iv></iv>	The convenience of consumer products involving five dimensions: time, place, acquisition, use and execution (Maliva, Mblilinyi, and Mkwizu et.al. 2018)
Security (SE) <iv></iv>	It is a trust on the product that leads to loyalty with heart share of consumers with the kind of emotional trait where the consumer consumers determine that the product can be upgraded from time to time (Gopalakrishna, Kassa, and Getnet, 2018).
Social Influence (SI) <iv></iv>	It is a factor that will influence others in their purchase intention and decision- making process (Kumar, 2019).
Speed (SP) <iv></iv>	Speed is a service ability which enable to fulfil consumer's needs and provide satisfactions to consumers (Girsang, Rini, and Gultom, 2020).

1.9 Organization of Chapters

This study consists of five chapters. A brief introduction is listed in table 2 as below.

Table 1.9: Organization of Chapters

Chapter	Aim of the Chapters
Chapter 1: Introduction	This chapter introduces the research background that related to the variables. It outlines consumers' purchase intentions, and discusses problem statements, research objectives, research questions, and limitations.
Chapter 2: Literature Review	Chapter 2 is to review the relevant past studies which had been done by other researchers. It provides the definition of purchase intention of consumer and the phenomenon of the study in both global and local perspective. Theoretical models, theoretical framework and hypotheses were carried out.
Chapter 3: Research Methodology	Chapter 3 describes research methods, including data collection, sampling design, structural measurement, data analysis and research instrument.
Chapter 4: Research Findings	Chapter 4 provides key research findings of the data collection. The outcome of the findings is analyzed with the assistance of SPSS statistic software.
Chapter 5: Conclusion and Recommendations	Chapter 5 is concluded all the results from the findings. The limitations, recommendations, contributions and personal reflection of the study are discussed.

Chapter 2 : Literature Review

2.0 Overview

In chapter 2, the researcher discusses and study on other researchers' study which had been done the same study in the past years. Then, the researcher further discusses in details on purchase intention of consumers in both Malaysia and in global perspective. Furthermore, the independent variables that influencing purchase intention will also be discussed in this chapter. Lastly, followed by the supporting theory i.e.: fundamental theory, gaps in the literature, research framework and hypotheses were evaluated and included in this chapter as well.

2.1 Purchase Intention

Jaafar, Lalp and Naba, (n.d.) said Purchase intention is related to consumers' behavior, perception, attitude and purchasing behavior, which is an important focus for consumers when considering and evaluating certain products. For example, Brands do have certain functions which it has a significant influence on the consumers' purchase intention of brand image, product quality, product knowledge, product involvement, product attributes, and brand loyalty (Goyal, 2014).

In these years, consumers now tend to exchange their views and knowledge of products online with each other. This is called eWOM. According to Yusuf, Che, and Busalim (2018), eWOM is the impact of someone's casual opinion of the products and brands due to the use of products and brands. Toor, Husnain, and Husnain (2017) also said that the world today is surrounded by technology in particular, high technology. Hence, it is essential to understand how social network marketing can impact consumer purchase intention.

Deshpande and Saxena (2017) defined that purchase intention is the study of consumers and the processes they use to select, consume and dispose the goods, services were studied in depth including how the process influence the world because purchase intention of consumers incorporates with few sciences ideas which including psychology, biology,

chemistry and economics. Srinivas (2015) also stated purchase intention is the result of the attitudes, preferences, intentions and decisions made by the consumer on the market before purchase a product. This is an interdisciplinary subject area that draws heavily on sociology, psychology, anthropology, economics and etc (Kabir, Rahman and Yusufzada, 2019). Srinivas (2015) said that such research has a large influence on how the products being marketed and sold.

The main focus of the study of purchase intention is to find out why some people make such purchase and not others (Srivastava and Tiwari, 2014). According to Srinivas (2015), upon completing on the findings, the next step is to identify particular factors that influencing consumers to make such purchasing decisions. This was also supported by Menaka and Shobana (2015) that understanding the factors and the reasons behind consumer's purchasing trends is an important part of working on a concrete and effective marketing strategy. According to Das (2013), purchase intention is always out of expectation and dynamic because consumers know what their choices are about and They will benefit when they have more product information and benefit from understanding their rights, hearing about alerts and warnings, and understanding security issues.

Al-Mamun, Muniady, and Permarupan et al. (2014) also Point out that understanding consumer buying intentions is essential for companies and marketers to work out on effective marketing strategies to target the right consumer group. Therefore, many literatures have been recognized that personal factors such as age, lifestyle, economic status, occupation, personality and self-concept are significant aspect of learning consumers' purchase intention.

2.1.1Global Perspective

According to the research of Grešková and Kusá (2015), Omnicom Media Group conducted an extensive international study in the Czech Republic in 2010 which studying consumers 'purchasing intentions, media choices, and ownership and use of modern communication technologies. The results of the study are Generation Y does not like to make impulse purchase and before they purchase, they will always find out more information about the product and compare the products. This is further supported by Chang et al. (2016), everyone has a distinct characteristic that will influence purchase intention and this characteristic is the distinguishing psychological characteristics that lead to the relatively environment and enduring responses to the environment. Grešková and Kusá (2015) further claimed that due to the ease of access to modern communication technologies and the availability of online environments, consumers are more likely to have more product information, and also considerable a large number of products and services that are available in the market. Therefore, they are now more demanding, and hardly believe in everything the world of marketing activities offers. Forbes, Fugate, and Melancon (2015) claimed that technologies together with other factors' influences have also revealed in the position of the generation in the contemporary society because the generation Y seemed like they can get anything that available which included technologies, shopping possibilities, work opportunities, free time activities and etc. Therefore, the world of marketing is too close to this consumer segment, it wipes out the borders between what they wanted and what they attained.

Cai, Deng and He, et al. (2015) said in China, due to rapid industrialization and rapid growth of economic at which the nature of China's economy has been significantly changed and the increase standard of living, economic and market among Chinese consumers, as a result, China has been transforming into a consumption-oriented affluent society, the consumer have witnessed a rapid changing environment in which conspicuous consumption has surged.

Ghosh & Varshney (2014) found that in most of the developed countries, the factors affecting luxury consumption are cohort perception, culture, income and self-awareness. Dai et al. (2014) pointed out that social comparison plays an important role in conspicuous consumption. Tao and Zhang (2015) further found that face consciousness is the most influential factor affecting Chinese consumers' conspicuous consumption, followed by identity, social value, material comfort, symbolic of the products, brand source and reference group.

Patikar and Thangasamy (2014) claimed that in Indian contemporary society, the population of female constitutes more than half of the total population, but in many research studies, it reveals that male is more dominant in a family and thus, there is a necessity to conduct research to sharpen their contemplations towards the role of women within a family in multifaceted decision-making processes in purchasing product and services.

2.1.2 Malaysia's Perspective

Al-Mamun et al. (2014) stated that despite of the robust growth of the small non-store market, Malaysia retail is still dominated by store-based retailers and the development within the store channel has largely driven the market's growth in 2000-2007, Malaysia became more and more urbanized as a result consumer purchase intention has been changed accordingly which benefited those large-scaled retail channel such as hypermarkets and par pharmacies or drugstores, convenience stores also performed well. Alavi et al. (2015) claimed that subsequent decision-making styles became more and more complex, when consumers can choose between retail stores or large shopping malls, and they were satisfied with this intent purchase, the structural relationship between decision-making styles Of research is rarely conducted on consumers demonstrate their satisfaction and willingness to purchase during shopping at the mall. Al-Mamun et al. (2014) said consumers in urban area usually spend 1.5 times as much as consumers in rural area, as such the change of lifestyles has led to a major increase in retail sales. Carter, Lee, and Yeo (2018) said that some companies in Malaysia are indeed agree to allocate some resources for developing corporate social responsibility (CSR) which can generate a positive image on influencing consumers and their behavioural responses. Abdullah, Anis, and Faisal et al. (2019) stated in Malaysia, the effectiveness of advertising is always relation to purchase intention of consumers and it always important because of most of the time, consumer purchase intention is influenced by the advertisement of the product. Akhtar, Ashraf, and Latif (2016) supported that consumers control the market and marketers focus on different factors to attract more customers such as consumers' purchase habits, quality and evident results which they have an associated emotional with the brand which they can even wait for products when there is a shortage on a specific product or service.

According to Department of Statistics Malaysia, consumer spending in Malaysia achieved an average MYR120,472.98 million from 2005 – 2019. It reached an all-time high of MYR217,902 million in the third quarter of 2019 (Tradingeconomics, 2019). Carter, Lee, and Yeo (2018) said that despite of the economy of Malaysia was going slow, socially responsible organizations have thrived, while other stakeholders believe that socially irresponsible behaviour is faltering and CSR has been adopted as a survival strategy for the company which helped to trigger changes in consumption patterns and consumer purchase intention. Al-Mamun et al. (2014) claimed that learning on human needs is essential for effective marketing strategy, however, these needs are not easily to be detected because consumers are changing their needs at any time and subject to trends, internal and external factors influences.

2.2 Factors Influencing Purchase Intention of Consumers

This section discusses the four factors such as conveniences, security, social influences and speed which will be influencing consumer's purchase intention.

2.2.1 Conveniences (CV)

According to Maliva, Mbilinyi, B., and Mkwizu et al. (2018) stated that the term 'convenience' has reformed from a descriptor of products into its own unique concept due to the evolution of meaning, the concept of time purchase or time saving is emphasized with a more thorough definition of convenience is now includes a general element – the reduction of non-monetary costs is associating with a product. Prinsloo (2016) also referred to CV becomes more and more popular and convenient which driven by frequency of shopping and convenience is related to way-finding, parking, trading hours, access, easy movement and etc.

According to Kelley (1958), with the increasingly extensive CV functions involved in new products, there are new CV forms to be appeared in marketing systems, one can see the importance of CV as a decision that determines whether consumers accept products and services and he described in his research that there are ten forms of CV which the American consumers are now taken it as a matter: i) form convenience; ii)Time convenience; iii)Place convenience; iv)Quality or unit convenience; v)Packaging convenience; vii)Readiness convenience; viii)Combination convenience; viii) Automatic operation convenience; ix)Selection convenience and x)Credit convenience (Kelley, 1958). Maliva et al. (2018) further explained location is one of the main determinants of choice of retail stores and success in retailing because this is the basic criteria where the consumer have to make decision to choose a store for shopping, in addition, store visibility is a frequent discussed element because it does influence consumers' decision of choosing one store over others. Kelley (1958) described there are four aspects from place CV at which the company should study them all and to look for areas that can reduce consumer CV costs, for example, i) must choose a geographic area where the goods and services are provided and to be selected; ii) the most satisfied positions in the market must be selected from those offered by distributors and retailers selling space in the market; iii)Choices must be made among competing companies offering access to the customer; iv) Must address issues with goods placement in the store.

Mehmood and Najmi (2017) stated there are five stages of CV: i) Decision convenience; ii) Access convenience; iii) Transaction convenience; iv) Benefit convenience and v) Postbenefit convenience which allows the companies to have better understanding on how the consumers using their time and effort at different levels because there are differences between service provision and customer expectations when the service provided by the companies reduces more customer time and effort which more than what he expected, then this will lead to customer satisfaction. According to Kaura, Durga Prasad and Sharma (2015), people nowadays not only want high-quality service but also want the service CV for them too, for instant, they are looking for a CV to save their non-monetary costs such as time and effort, and the service CV provided by the companies is largely reorganized by the customers and it is basically a CV that reduces customer time and effort in getting the products and services.

In Mehmood, and Najmi (2017) study, it was examined that a direct correlation exists between customer satisfaction and service CV which means that companies must consider in providing service convenient to customers, not only consider the logistics of providing the physical distribution of the product to customers and for this reason, they must develop the CV strategies in order to let them to build a long term relationship with their customers and achieve the competitive advantage to the highest level. Maliva et al. (2018) also point out the essentiality of customer service elements in relation to store image, such as providing of premium-quality customer services has been long considered as a basic condition in retailing strategy because high quality customer services are very much required by current customers who are well-informed of same offerings by other retail stores in worldwide, therefore, an excellent customer services will have a positive image and influence about the shopping experience and this will lead to improving in consumer's satisfaction, perceived value and customer loyalty.

In Bowen and Chen (2001) mentioned that retail stores' customer services basically include: i) After sales services; ii) Easy payment method; iii) Ample parking spaces and availability of shopping bags. As such, customer services are considered as easy to exchange or return of goods in the shops, parking space availability and alternative of payment methods like the use of mobile money payment (Maliva et al. 2018). According to Prinsloo (2016), convenient is one of the mechanisms that marketers could use to retain and attract customers especially during this new era of industrialization because customers would prefer accessible location shopping and service CV to save time their time, therefore, in this aspect, the company should have strategically positioned location and service convenience as their asset because once these strategies are employed, it will enhance customer buying experience and satisfaction.

2.2.2 Security (SE)

According to Gopalakrishna, Kassa, and Getnet (2018), trust on the products will lead to loyalty with heart share of consumers can we accumulated with the kind of emotional trait is called security where the consumers determine that the product of yesterday, today, tomorrow is either the same or upgraded time to time. SE refers to a set of procedures and programs used to verify the source of information and to ensure privacy and integrity to avoid network and data problems (Junadi and Sfenrianto, 2015). According to Varma, Kumar and Sangvikar et al. (2019), data SE can be characterized as protecting the data, information, and information from unauthorized access, use, disclosure, disruption, modification, perusal, inspection, recording or destruction. Jukariya and Singhvi (2018) said the availability of online information about product services, the convenience of comparing with other products when shopping online, and the delivery time spent by agents to ensure the safety of customer identities and ensure a smooth transaction are important factors that may affect consumers' willingness to buy. To build consumer trust online effectively, it requires the SE and privacy concerns to be addressed, and for consumers to perceive that this to be a matter (Johnson, Blythe and Manning et al. 2020).

2.2.3 Social Influence (SI)

Kumar (2019) said social is a factor that will influence others in their purchase intention and decision-making process and it is including family, friends, reference group and opinion leaders. Varshneya, Pandey and Das (2017) stated SI occurs when individuals change their thoughts, feelings or behaviours in response to their society or surroundings and it has been observed that people manipulate or modify their thoughts and actions in order to conform to the other groups or society, its root lies in the concept of homophily which can be considered as the social dynamics in which individuals try to affiliate with others by displaying similar behaviour. Kumar (2019) further explained that family members are greatly influence the purchasing behavior of individuals, and an individual member representing individual social groups will also serve as role models for other members in their discussions, therefore affecting the purchasing behavior of other members in the group, friends always affect the consumer buying pattern, people usually do not discuss topics with family members, but discuss topics with friends. (Kumar, 2019). In Xu, Li and Peng et al. (2017) study, Celebrity endorsements can enhance the perceived quality of goods, such as products, events, brands, stores, all of which are related with intention-to-adopt. Therefore, people want to imitate the behavior of spokespersons because people think they have better information and make the right decisions than the general public.

Consumers are always engaged in various impression management efforts to ensure others perceive them in a favourable light and like to project positive image to others, such as being popular, high in status and socially responsible through using products to signal identity-relevant information (Argo, 2019) In many developing countries, SI and cultural values prevails to gain access to opportunities ranging from adoption of business opportunities to products and services (Salman & Jamil, 2017).

2.2.4 Speed (SP)

The speed of the Internet is an indicator of service quality, especially in an e-commerce environment, internet marketing has become very important for assessing the influence of speed as a variable on customer evaluation of service quality (Dey, Al-Karaghouli and Minov et al. 2019). Online market competition is very different from traditional market competition, because the price comparison is easier to conduct, the relationship between the buyer and the seller is mediated by the computer, and the transaction is based on information about the product or service rather than its physical appearance. Therefore, consumers can participate in the global market in a flexible, fast and cheaper way through the Internet, and can enter the virtual market in many different ways, because the diversity and depth of information can speed up the decision-making process. (Norrgard, 2019). Ma (2017) stated that Operationalize customer service in the logistics industry as delivery speed and product support, because customer service can improve the financial performance of the organization, and the timeliness of orders will have a greater impact on satisfaction. In Sharma and Garga (2020) study, consumers perception regarding product in terms of quality, size and design and online experience in terms of website interactivity in terms of speed, design and technology had a positive significant impact on purchase intentions. Girsang, Rini, and Gultom (2020) also supported that one of the dimensions for product quality which is the ability of the product to meet consumer needs and provide satisfactions to consumers are service ability which is related to speed.

2.3 Gaps in the Literature

In the recent years, there has been many researches (Goyal (2014); Maliva, Mbilinyi, and Mkwizu (2018); Gopalakrishna, Kassa, and Getnet (2018); Varshneya, Pandey, and Das (2017) and Sharma and Garga (2020)) carried out in specifying or detailing the importance of purchase intention of consumers. However, there is limited information which details Malaysian household demographics, preference, purchase intention towards the factors that discussed. Hence, it is necessary to fill the gap in past studies by conducting a new study on the effect of all those factors towards household product on purchase intention of consumers.

2.4 The Theory of Planned Behaviour (TPB)

According to Lee and Osman (2017) stated that human action or behaviour is a function of attitude and subjective norm. In Ajzen (2014) study, TPB was evolved by adding perceived behavioural control to the original theory of reasoned action and different metrics for example, a theoretically constructed attitude can improve intention prediction because the second metric can include meaningful change in attitudes not accounted for original metrics.

Armitage (2014) stated the theory has been thoroughly dishonoured and cannot be used as a guide for predicting and changing health-related behaviour, it has been recognized that TPB has been shown to provide consistency prediction of behaviour from intention and perceived behavioural control and has found out significant changes in intention can lead to behaviour change and if this is the case, one would doubt the theory has been smeared. In Ajzen (1991) study asserted the theory of planned behaviour assumes three conceptually independent determinants of intention: i) attitude towards behaviour; ii) social factor known as subjective norm and iii) the degree of perceived behavioural control.

The TPB is the most famous and in-depth explication for action or inaction in psychology, many studies examining and applying the theory, its influence is extensively and the theory can replace the basic premises and implicitness of the causality, since the standard view point of causality is usually been assumed, therefore, its structure has not been studied in depth yet (Baumeister, Funder, and Vohs 2007). Therefore, this theory is comparatively suitable to be adopted as a fundamental theory to clarify attitudes towards consumer behaviour, subjective norms and perceived behaviour control in the consumer buying process.

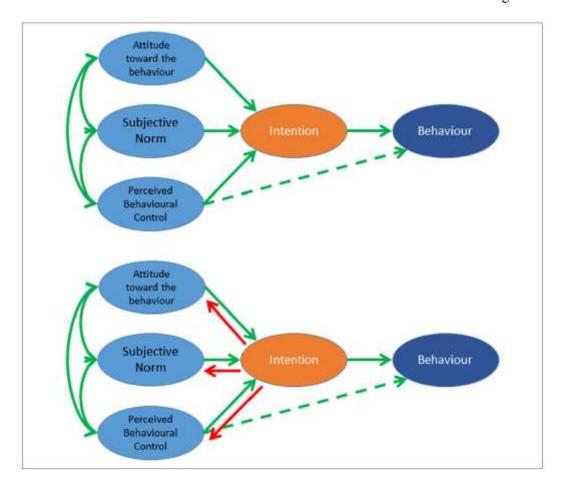


Figure 2.4: Theory of Planned Behaviour (TPB) (Sussman and Gifford, 2018)

2.5 Conceptual Framework

The proposed conceptual framework for this study is depicted as below:

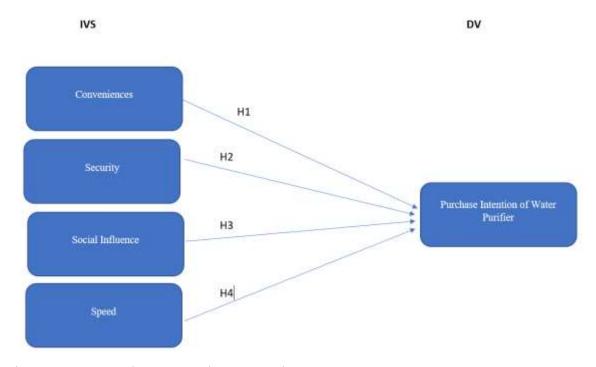


Figure 2.5 Proposed Conceptual Framework

2.6 Hypotheses

Based on the above discussion, the hypotheses are generated as below:

- H1: Conveniences factor has a significant relationship with purchase intention of consumers on water purifier in Malaysia.
- H2: Security factor has a significant relationship with purchase intention of consumers on water purifier in Malaysia.
- H3: Social Influence has a significant relationship with purchase intention of consumers on water purifier in Malaysia.
- H4: Speed factor has a significant relationship with purchase intention of consumers on water purifier in Malaysia.

2.7 Conclusion

As more and more consumers have begun incorporate conveniences, security, social influence and speed into their purchase intention, it has become increasingly for marketers to understand how these belief systems influence the consumption experience. Among the four factors that discussed, relatively less is known about the factors that discussed and the consumer purchase intention from all factors' perspective. By addressing this gap in the literature, this study makes a contribution by providing a better understanding on Malaysia consumers' conveniences, security, social influence and speed in their purchase intention. As a conclusion, the researcher decided to adopt conveniences, security, social influence and speed as the individual variables in this study.

Chapter 3: Research Methodology

3.0 Overview

In this chapter, the research design and its methodology which had been applied in this study will be introduced. The research design will be carried out with the linkage of the framework which is proposed in Chapter 2. The process of setting up questionnaires, implementing survey, collecting data and pilot test are included in this chapter.

3.1 Research Design

Research design is the structure of research study. It is a tool that building up a research with mixtures of all elements in order to create answers to research questions (Kumar, 2019). The purpose of the descriptive research is to find out the factors that influence purchase intention of consumers on water purifier in this study while for acquiring data to support on the findings, the quantitative based of research will be used. According to Leavy (2017), quantitative research is characterized by deductive approaches to the research process aimed at proving, disproving or lending credence to existing theories. This type of research involves measuring variables and testing relationships between variables in order to reveal patterns, correlations or causal relationships. For independency and accuracy of the research to be maintained, correlation design is used as part of examination in order to identify the relationship between the independent variables and dependent variable in this study and the fulfilment of the criteria of noncontrived where the researcher did not involve and in controlling the research environment. This study is also complied with the principle of the research that having minimal interference from the researcher because the researcher was simply distributing the questionnaire to the target respondents in Malaysia and the phenomenon of buying water purifier is occurring in natural environment.

3.2 Unit of Analysis and Time Horizon

Babin, Carr, and Zikmund et al. (2013) stated that, most of the researches are emphasizing and focusing on people, therefore, the unit of analysis is supposed to be based on individual instead of organization. For the purpose of this study, the population is the individual of consumers and it is focused on determining the significance level in the aspect of relationship between independent variables and dependent variable in the study. Furthermore, the questionnaire that designed online is being distributing out to individuals in order to collect data just once time and it will not be extended over a period of time. Saunders (2015) supported that the cross-section study will be using when the data is collected at a single point of time. This study is a cross-section study because the research method is distributed the questionnaire via online and it is distributed to the target respondents at one time only and is not repeated answering by the same respondent. More precisely, the research's unit of analysis refers to individual of consumers who are Malaysian.

3.3 Sampling

Delice (2010) pointed out that sampling is a method of selecting the appropriate samples which is used extensively in most of the research studies in order to help in providing a comprehensive outline as a basis of the study. This study will conduct survey on all relevant respondents in the target population and the sampling method will be used to make a small sample from the targeted population.

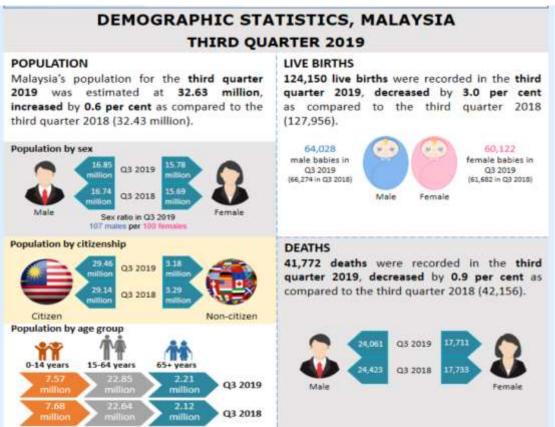
3.3.1 Sampling Plan

According to Saunders (2015), it is impossible to get all individuals from the entire population to respond on the survey. Therefore, a reasonable number of samples should be drawn from the target population to respond to the survey, and the principle of correlation studies should be fulfiled by determining the relationship between the variables in the study. In order to define an appropriate sample size, sampling is preferred by using a more practical sampling method to target on respondents from the sampling population.

3.3.2 Sampling Population

Gray (2004) defined that population is the total number of possible units or elements that are included in the study in case it is not possible to evaluate the entire population due to its large size or lack of research resources. Bougie and Sekaran (2013) said target population is the segment of people who have the similar characteristics and nature that required in the study. In case of there is large scale of target population, an appropriate sampling method is required to apply for sample analysis (Cooper and Schindler, 2006). Consumers in Malaysia will be the target population in this study and they are primary. According to statiscal data from Department of Statistics Malaysia (2019), the population in Malaysia is 32.63 million.

Figure 3.3.2a Population in Malaysia (DOSM, 2019)



However, based on the sample size table of Krejcie and Morgan (1970), a number of participants of 384 would be required for a given population of 1 million to reflect a cross-

section of the population as shown in the table below (Figure 3.3.2b). Thus, a sample size of 384 people would be required in this study.

Figure 3.3.2b: Table for Determining Sample Size from a Given Population (Krejcie & Morgan,1970)

TABLE 1
Table for Determining Sample Size from a Given Population

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.-N is population size.

S is sample size.

3.3.3 Sampling Method

Sampling methods are categorized in probability and non-probability sampling. The principle of the probability method is that each individual of the sampling population will have an equal opportunity to be selected as a respondent in the survey (Bougie and Sekaran, 2013) whereas non-probability method is that each individual of the sampling population will not be having equal chances to be selected as a respondent in the survey. In addition, probability sampling is to select respondents randomly from sampling population who are participating in the survey designed whereas non-probability sampling is to select respondents among the sampling population who are participating in the survey designed (Delice, 2010).

Due to larger population in this study, the convenience sampling method will be applied and non-probability sampling method will be applied as well in the study. Furthermore, due to time constraints as well as cost concern, it would be impossible to reach large number of sampling population to participate in the survey designed. Thus, convenience sampling would be the appropriate sampling techniques where the samples were selected in the condition of reachable to the researcher. This means that the respondents in the survey are familiar with the researcher which is more easy, optimum cost and minimum time is consumed and required (Saunders, 2015).

3.3.4 Sample Size

This study is emphasizing and focusing on the consumer purchase intention on water purifier in Malaysia. As mentioned in chapter 3.3.2, a number of participants of 384 would be required for a given population of 1 million to reflect a cross-section of the population. Therefore, due to time constraints, it would be impossible to conduct the survey for the entire population of consumer in Malaysia. Thus, an appropriate sample size of 384 has been drawn up for this research.

During designing process of the study, sample size is needed for determination (Kumar, 2019). Before the required actual sample size is determined, there are certain factors need

to be ascertained such as confidence level of the probability whether the research findings are correct, the tolerance level of the sampling error on confidence interval, the size of population and the estimation of the response rate. In Krejcie and Morgan (1970), it stated that it is no doubts that the total number of the sampling population is the population size, the indicator for confidence level will show how confident the researcher wish to be of the results from the research study is correct, whereas the confidence interval as well as the estimated response rate are for determination by the researcher on the degree of error in the study that the researcher is willing to accept and the average number of respondents that receiving from the survey given. Thus, with the advice that provided on this study, the population size is 384, the confidence level will be 95%, confidence interval will be 5% and a total of 80% estimated response rate is expected. As such, there will be 400 sets of questionnaire surveys to be sent out to the respondents.

3.4 Questionnaire Design

As referring to below Table 3.4, there are total 32 questions in the questionnaire and it is divided into two sections which is section A and B. Respondent characteristics such as demographic profile like gender, age, monthly income, education level and status were asked in section A. There are 2 questions in filtering question part like whether the respondent is already using water purifier were asked prior to proceeding to section A. There are total 25 questions in section B in the questionnaire. 5 questions for dependent variable (DV) which is about consumer purchase intention on water purifier and then 5 questions each in relating to each independent variable (IVs) were asked. There are: CV, SE, SI and SP (referring to abbreviation) The questionnaire was prepared in an electronic form via google and then send out to the target population. The target population consist of student, employee, businessman and housewife.

In this questionnaire, nominal scale is often used whenever the variable is grouped into two categories (Nassaji, 2015). According to Cooper and Schindler (2011), even though the nominal scale is measured in numbering but it does not serve any quantitative value. For instance, those questions under demographic profile such as gender, age, monthly income, education level and respondent status, there are all will be measured in nominal scale when they are converted in numeric value in SPSS for data analysis. Thus, the

nominal scale will be adopted under demographic profile. For the purposes of generalizing study findings, it is recommended that large sample size is adopted. In order to obtain reactions from the respondents, 5-points Likert is usually adopted with (1) strongly disagree to (5) strongly agree (Adam and Kamuzora, 2008).

Thus, the content of the questionnaire will be using Likert scale whereby 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree for evaluating the behaviour of the respondents.

Table 3.4: Questionnaire Design

Section	Variable	Item	Source	Adopted / Adapted	Reasons
A	Demographics	5	Srinivas (2015)	Adapted	Demographics play a moderating role which influencing the purchase intention on water purifier and independent variables.
В	Purchase Intention	5	Toor et. al (2017)	Adapted	Similar DV in this research.
	Conveniences	5	Chern et al. (2018)	Adopted	Conveniences is known to influence purchase intention.
	Security	5	Chern et al. (2018)	Adopted	Security is known to influence purchase intention.
	Social Influence	5	Chern et al. (2018)	Adopted	Social influence is known to influence purchase intention.

Speed	5	Chern	et	al.	Adopted	Speed is known to
		(2018)				influence purchase
						intention.

3.5 Measurement Instruments

3.5.1 Pilot Test

A pilot study is considered a small and trial version of proposed studies which assess its effectiveness and make the necessary improvements (Vogel and Draper-Rodi, 2017). The function of the pilot test is mainly to check the questionnaire used whether it is understandable and feasible in collecting the data and whether the data collected is justifiable and match the objectives of the study (Hair, Black, and Anderson et al., 2010). In addition, pilot testing is used to reveal the current errors and deficiencies in the design of the data collection tool and it helps to verify its validity and credibility of the data collection tool before it is fully tested (Assink, Hanemaaijer, and Jansen et al., 2013).

According to the rule of thumb for pilot test sample size, it must be 10% -20% or more of the 400-sample size, and about 40 of the target respondents will use 95% confidence level and probability of 5% problem that will occur to participate in the pilot study (Viechtbaucer et al. 2015). In order to determine the validity and convergence of the data collected, SPSS software will be used.

Adjustment is made to the questionnaires based on the pilot test results with the aim of improving its reliability before being distributed for the large-scale study. Thus, the questionnaire will be adjusted based on the results of the pilot test in order to improve its reliability before distributing for the large-scale study (Sarstedt and Cheah, 2019).

3.5.2 Demographic Information

The importance of collecting demographic information is to provide researcher and other readers with an overview on the population distribution of the study and also provide them with an understanding about the characteristics of the research subjects (Babin et al. 2013). As mentioned in 3.4, the demographic information of this study consists of 5 characteristics from respondents: gender, age, monthly income, education level and status. In consideration of ethical issue in research principle, respondents' personal data will be conducting in a way of anonymously and will be kept as confidential which will not be disclosed to the public.

3.5.3 Preliminary Test

According to Comrey and Lee (2013), factor analysis is a tool that can be used to aggregate a large number of variables into a smaller number of factors so that factor analysis collects a larger common variance from all variables and puts them into a common score.

Kaiser-Meyer-Olkin (KMO) is a test that measuring the suitability of research data for factor analysis (Saunders, 2015). Hair et al. (2010) said that the measure of sampling adequacy (MSA) is one of the factor analyses measures that should be in the range of 0 to 1, therefore, the higher the configuration of MSA, the more appropriate the consequent estimation of the factor is. According to Backhaus, Erichson, and Plinke et. al. (2006), the raw data is suitable for conducting a factor analysis if the KMO measure of sampling adequacy is greater than 0.6 and the KMO assumes values between 0 to 1 and measures how strong the variables being tested correlate and the size of the KMO value can be evaluated as per below table:

Table 3.5.3: Interpreting KMO Value (Backhaus, Erichson, and Plinke et. al. 2006).

KMO ≥ .9	marvelous
KMO ≥ .8	meritorious
KMO ≥ .7	middling
KMO ≥ .6	mediocre
KMO≥.5	miserable
KMO < .5	unacceptable

Barlett's test is used to test if samples have equal variances and equal variances across samples is called homogeneity of variances (Snedecor and Cochran, 2014). It is also for determining if the data are suitable for a factor analysis and its working hypothesis states that none of the variables being tested may correlate with each other.

3.5.4 Reliability Test

According to Bougie and Sekaran (2013), reliability is considered a measure of the consistency of the data collected, which is a basis for preliminary testing and to ensure that data accumulation is appropriate and suitable for further analysis. The result of reliability should be described in a way of consistent and it should be validated by multiple groups of respondents so that it can be able to deliver common results (Saunders, 2015). Cronbach's alpha is a preferable way to test the reliability of the questionnaire. Thus, Cronbach's alpha is used to test the data quality in the study, the acceptable range is 0.7 to 0.95 and if any results fall below 0.7, it is considered as poor reliability and the item is inconsistent which should be removed for future analysis (Hair et al., 2010). This is supported by Babin et al. (2013), if any factor of the test result is lower than 0.7, it is considered to be a lack of reliability, so on the contrary, the higher the index, the more reliable the data. As refer to the below Table 3.5.4, it provides a guideline that interpreting the index of Cronbach's alpha results:

Table 3.5.4: Guideline for Cronbach's Alpha Value (Hair et al., 2010)

Cronbach's alpha	Internal consistency
α ≥ 0.9	Excellent
0.9 > α ≥ 0.8	Good
0.8 > α ≥ 0.7	Acceptable
0.7 > α ≥ 0.6	Questionable
0.6 > α ≥ 0.5	Poor
0.5 > α	Unacceptable

3.6 Hypotheses Testing

Hair et al. (2010) stated that the purpose of using Statistical Product and Service Solutions Analysis Software (SPSS) is to analyse and examine the data collection. Comrey and Lee (2013) recommended that SPSS is user-friendly and is conducive for statistical analysis of various types of data. Therefore, SPSS was selected for this study. This analysis software will be used solely in analysing the information for hypotheses testing and various tests that have been mentioned previously in this study.

3.6.1 Multiple Regression

Suki (2013) said, multiple regression is also known as an extension of simple linear aggression. It is used when researchers want to predict the value of a dependent variable according to the value of independent variables which indicating whether there is any relationship between the factors. The dependent variable tested in this study is consumer buying behaviour while the independent variables are conveniences, security, social influence and speed.

3.6.2 One-Way ANOVA

Gray (2004) defined that one-way Analysis of Variance (ANOVA) is a statistical test used to determine whether there are differences between two or amongst three or more groups on one or more variables. ANOVA is determined by using the *F*-test. One-way ANOVA also determined a single factor analysis of variance which using to test whether at least three or more means equalities (Saunders, 2015).

3.7 Conclusion

This chapter explained the groundwork for research design, measurement of sampling method for data collection via questionnaire survey which will be distributed to target population (consumers) in Malaysia for studying whether the independent variables: CV, SE, SI and SP have influence on dependent variable: PI. The outcome from data collected will be examined by using factor analysis and reliability test.

Chapter 4: Research Findings

4.0 Overview

In this chapter, data analysis will be conducted based on the data collected through online survey. The information collected will be formed as diagrams and graphs with the assistance of SPSS statistic software. 200 were collected through online google form via various social media platforms. Descriptive analysis was done to define respondent's demographic profile. Pilot test, demographic profile, preliminary test and hypotheses test will be included in this chapter.

4.1 Pilot Test

According to Babin et al. (2013), the purpose of a pilot test is to evaluate the feasibility and validity of the data collected and used to test a proposed research study before it is implemented a full-scale performance. In this study, the initial 40 respondents had been used to carry out a pilot test. Meanwhile, the Cronbach's Alpha had been used to test the reliability of the 25 questions and to test the data quality. The acceptable range of Cronbach's Alpha is 0.7 to 0.95.

Table 4.1a Pilot Reliability Test - Cronbach's Alpha based in Dependent Variable

Case Processing Summary

		N	96
Cases	Valid	40	100.0
	Excludeda	0	.0
	Total	40	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.847	5

Since the Cronbach's Alpha is valued at 0.847 and it is within the acceptable range, the reliability is certified to proceed with the test.

Table 4.1b Pilot Reliability Test - Cronbach's Alpha based on Independent Variable

CV		SE	
Reliak Statis	•	Reliak Statis	•
Cronbach's Alpha	N of Items	Cronbach's Alpha	N of Items
0.791	5	0.852	5
SI		SP	
Reliab Statis	-	Reliat Statis	-
Cronbach's Alpha	N of Items	Cronbach's Alpha	N of Items
0.877	5	0.938	5

To make sure all aspects of the study are covered, a Cronbach's test was also conducted in all independent variable – conveniences, security, social influence and speed. The result shown in table 4.1b of Cronbach's Alpha in all independent variables which have given a high reliability, i.e: 0.791 - 0.938 from this test to the study.

4.1.1 Pilot Test - Factor Analysis for DV

Table 4.1.1a KMO and Bartlett's Test (Dependent variables)

KMC	and Bartlett's Test	
Kaiser-Meyer-Olkin Me	asure of Sampling Adequacy.	.760
Bartlett's Test of Sphericity	Approx. Chi-Square	86.154
	df	10
	Sig.	.000

The above table 4.1.1a shows a value of 0.760 on the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. Based on Backhaus (2016), KMO value greater than 0.6 is indicating an acceptable sampling adequacy for the study. With a value of 0.760, it is confirming that the results can be used for factor analysis. It has been further proven by the Barlett's significance level that Purchase Intention being the dependent variable is relying on conveniences, security, social influence and speed to achieve success.

Table 4.1.1b Communalities of the DV

Communalities

Initial	Extraction
1.000	.653
1.000	.639
1.000	.657
1.000	.735
1.000	.510
	1.000 1.000 1.000 1.000

Extraction Method: Principal Component Analysis.

Referring to table 4.1.1b, it is a table of communalities value which extracted for DV – Purchase Intention (PI) to determine the factor that has the most influence on each variable. One variable shows a value of <0.6 and four variables show >0.6. For the variables higher than 0.6, it is verified that factors such as conveniences, security, social influence and speed can be used for research analysis and for the variable lower than 0.6, it is still can be acceptable for further analysis according to Hair et al. (2010).

Table 4.1.1c Total Variance Explained for DV

		Initial Eigenvalu	ies	Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.139	62.788	62.788	3.139	62.788	62.788
2	.772	15.445	78.234			
3	.550	11.008	89.241			
4	.309	6.182	95.423			
5	.229	4.577	100.000			

Taherdoost et al. (2014) stated that Eigenvalues value is to measure the variance in each variable that is accounted by the factor. The rules of thumb of Eigenvalues must be more than 1 and equal to the number of variables and construct to study. Based on table 4.1.1c, it shows that one factor is greater than one which is aligned to the research analysis of one DV which is accounted for 62.788% of the variance.

4.1.2 Pilot Test - Factor Analysis for IVs

Table 4.1.2a KMO and Bartlett's Test (Independent variables)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin N	.643	
Adequacy.		
Bartlett's Test of	Approx. Chi-Square	622.450
Sphericity	df	190
	Sig.	.000

The above table 4.1.2a shows that a value of 0.643 on the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. The value is higher than 0.6, thus, conveniences, security, social influence and speed are verified and can be used for research analysis. Based on Barlett significance level 0.00, it further proven that the IVs are suitable for the research analysis.

Table 4.1.2b Communalities for IVs

Communalities

Communa	Initial	Extraction
CV 1: Water Purifier is easy to use.	1.000	.587
CV 2: Accessibility is still valid when	1.000	.886
abroad.		
CV 3: Convenient to use.	1.000	.677
CV 4: I would find water purifier is flexible	1.000	.542
to use		
CV 5: Using water purifier would make me	1.000	.648
perform my daily water intake more		
quickly.		
SE 1 : Satisfied with the security system	1.000	.846
while shopping online.	1 000	0.0
SE 2: Prefer customer's information is kept	1.000	.827
private and confidential while shopping online.		
SE 3: Prefer customer's financial	1.000	.926
information is being protected while	1.000	.920
shopping online.		
SE 4: Prefer customer's payment	1.000	.894
credentials are secured while shopping	1,000	.05.
online.		
SE 5: Customer being ensured by	1.000	.732
protection against risk of fraud and		
financial loss while shopping online.		
SI 1: People who influence my behavior	1.000	.787
think that I should use water purifier.		
SI 2: My friend think that I should use	1.000	.771
water purifier.		
SI 3: Using water purifier is considered a	1.000	.712
status symbol among my friends.		
SI 4: People who are important to me	1.000	.733
expect me to use water purifier.	1.000	5 0.6
SI 5: People who are important to me are	1.000	.796
likely to recommend using water purifier.		
SP 1 : I believe that using water purifier	1.000	.682
will improve my living style.		
SP 2: Getting water intake, 2 more in	1.000	.822
hassle.		

SP 3: It will save my time for using water	1.000	.870
purifier.		
SP 4: Using water purifier can get fast	1.000	.856
response.		
SP 5 : 2 more waiting time/delay on water	1.000	.873
intake.		

Extraction Method: Principal Component Analysis.

Table 4.1.2b shows the communalities of the IVs. CV2, SE1, SE2, SE3, SE4, SP2, SP3, SP4 and SP5 have variance 0.8 above. This means that 82% - 92% of the mentioned IVs have accounted for external variance. According to Hair et al. (2010), communalities value 0.5 and above is considered sufficient and acceptable to retain for further analysis.

Table 4.1.2c Total Variance Explained for IVs

Total Variance Explained

	Initial Eigenvalues		Extraction Sums of Squared Loadings			
Componen		% of	Cumulative		% of	Cumulative
t	Total	Variance	%	Total	Variance	%
1	7.758	38.789	38.789	7.758	38.789	38.789
2	3.309	16.544	55.333	3.309	16.544	55.333
3	2.089	10.447	65.780	2.089	10.447	65.780
4	1.189	5.943	71.723	1.189	5.943	71.723
5	1.122	5.611	77.334	1.122	5.611	77.334
6	.932	4.659	81.992			
7	.642	3.211	85.203			
8	.513	2.563	87.766			
9	.440	2.201	89.966			
10	.393	1.963	91.930			
11	.302	1.509	93.439			
12	.280	1.400	94.839			
13	.240	1.202	96.041			
14	.207	1.033	97.074			
15	.180	.898	97.971			
16	.149	.744	98.716			
17	.108	.540	99.255			
18	.088	.440	99.695			
19	.047	.236	99.931			
20	.014	.069	100.000			

Extraction Method: Principal Component Analysis.

The above table 4.1.2c shows that the extracted factors with Eigenvalues above 1 with extracted sum of squared loadings of 38%, 16%, 10%, 6% respectively. The four factors were extracted which corresponds to the number of construct (IVs) had been chosen for this study and to be retained for further analysis.

4.1.3 Reliability Test for DV and IVs

Table 4.1.3a Reliability Test for DV and IVs

Reliability	Statistics
Cronbach's	

Ciondach	
Alpha	N of Items
.923	25

According to Hair et al. (2010), reliability test is to gather evidence on the reliability of data collected. If the Cronbach alpha value is more than 0.7 for every item in the questionnaire, the it is acceptable in the questionnaire design. Based on the pilot test table 4.1.3a, it shows that Cronbach's alpha value of 0.923 conducted with all the dependent and independent variables.

4.2 Demographic Profile

A total of 200 questionnaires were distributed out through online google form via various social media platforms. 200 was collected which is a 100% response rate. All the 200 data collected are usable and valid.

4.2.1 Filtering Questions

There are two filtering questions related to whether the respondents are existing users of water purifier and having intention to use water purifier in the future at the first part of the survey form. All the respondents are required to fill in the questions before proceeding to section A and section B of the questionnaires.

Table 4.2.1a Respondents Statistic on Water Purifier

Are you using water purifier at home?

				Valid	Cumulative
		Frequency	Percent	Percent	Percent
Valid	Yes	34	17.0	17.0	17.0
	No	166	83.0	83.0	100.0
	Total	200	100.0	100.0	

Do you consider using water purifier in the future?

-		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	193	96.5	96.5	96.5
	No	7	3.5	3.5	100.0
	Total	200	100.0	100.0	

Refer to table 4.2.1a, there was 34 respondents are existing users of water purifier and 166 respondents are non-users of water purifier. There is 193 respondents out of 200 repsondents will consider to use water purifier in the future which made up about 96.5%.

4.2.2 Gender

Table 4.2.2a Gender

			Gender		
					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Female	125	62.5	62.5	62.5
	Male	75	37.5	37.5	100.0
	Total	200	100.0	100.0	

Table 4.2.2a shows a gender distribution among 200 respondents. Female is more than male where consisting of 62.5% female respondents and 37.5% male respondents.

4.2.3 Age

Table 4.2.3a Age

Age						
				Valid	Cumulative	
		Frequency	Percent	Percent	Percent	
Valid	18-28	44	22.0	22.0	22.0	
	29-38	80	40.0	40.0	62.0	
	39-48	60	30.0	30.0	92.0	
	48-58	14	7.0	7.0	99.0	
	>58	2	1.0	1.0	100.0	
	Total	200	100.0	100.0		

Table 4.2.3a shows the age distribution of the respondents. It shows that the highest age group of respondents is from age 29-38 with 40%. Second higher age group is 39-48 with 30%. Third higher age group is from age between 18-28 with 22% and the rest are age between 48-58 and age more than 58.

4.2.4 Marital Status

Table 4.2.4a Marital Status

What is your marital status?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single, never married	107	53.5	53.5	53.5
	Married	82	41.0	41.0	94.5
	Divorced	9	4.5	4.5	99.0
	Widow	1	.5	.5	99.5
	Separated	1	.5	.5	100.0
	Total	200	100.0	100.0	

Table 4.2.4a shows the distribution of marital status of the respondents. Majority of the respondents are single or married which is made up 53.5% and 41% respectively. There was only 4.5% are in divorced status and 0.5% for widow and separated.

4.2.5 Respondent with Children

Table 4.2.5a Respondent with Children

Do you have children?

				Valid	Cumulative
		Frequency	Percent	Percent	Percent
Valid	Yes	75	37.5	37.5	37.5
	No	125	62.5	62.5	100.0
	Total	200	100.0	100.0	

Table 4.2.5a shows the distribution of the respondents with children. 37.5% of the respondents are with children and 62.5% is without children.

4.2.6 Monthly Income

Table 4.2.6a Monthly Income

M	Λn	thly	Inc	ome
IVI	OH	LIIIV	THE	ome

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	<rm3000< td=""><td>63</td><td>31.5</td><td>31.5</td><td>31.5</td></rm3000<>	63	31.5	31.5	31.5
	RM3001-	54	27.0	27.0	58.5
	5000				
	RM5001	43	21.5	21.5	80.0
	-7000				
	RM7001-	21	10.5	10.5	90.5
	9000				
	>RM9000	19	9.5	9.5	100.0
	Total	200	100.0	100.0	

Table 4.2.6a shows the distribution of monthly income of the respondents. 31.5% is less than RM3000 in their monthly income. 27% of the respondents are in between RM3001-5000, 21.5% is in between RM5001 – 7000. Among the 200 respondents, there was 10.5% is in the range of RM7001-9000 and 9.5% is more than RM9000.

4.2.7 Education

Table 4.2.7a Education

	Education						
					Cumulative		
		Frequency	Percent	Valid Percent	Percent		
Valid	High school/SPM/O-	23	11.5	11.5	11.5		
	level/UEC/Certificate						
	Diploma	24	12.0	12.0	23.5		
	Bachelor Degree	96	48.0	48.0	71.5		
	Postgraduate (Master	53	26.5	26.5	98.0		
	/ PhD / Professor)						
	Others	4	2.0	2.0	100.0		
	Total	200	100.0	100.0			

Table 4.2.7a shows the distribution of education level of the respondents. Majority of the respondents are with bachelor degree and are postgraduate. The rest are with high school, diploma educational background. Only 2% of respondents are others.

4.2.8 Respondent's Status/Occupation

Table 4.2.8a Status/Occupation

		Status/Occupation					
		Frequency	Percent	Valid Percent	Cumulative Percent		
Valid Student Employee Businessman Housewife Retiree	Student	95	47.5	47.5	47.5		
	Employee	89	44.5	44.5	92.0		
	Businessman	6	3.0	3.0	95.0		
	Housewife	6	3.0	3.0	98.0		
	4	2.0	2.0	100.0			
	Total	200	100.0	100.0			

Table 4.2.8a shows the status/occupation distribution of respondents. Majority of the respondents are student and employee of the company. There was only 3% each for businessman and housewife and 2% is retiree.

4.2.9 Nationality and Residential

Table 4.2.9a Nationality and Residential

Are you Malaysian

				Valid	Cumulative
		Frequency	Percent	Percent	Percent
Valid	Yes	185	92.5	92.5	92.5
	No	15	7.5	7.5	100.0
	Total	200	100.0	100.0	

Which region in Malaysia do you live?

			· <i>j</i> ~		Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	East Coast	83	41.5	41.5	41.5
	(Kelantan,				
	Pahang,				
	Terengganu)				
	Southern	23	11.5	11.5	53.0
	(Negeri				
	Sembilan,				
	Melacca,				
	Johor)				
	Central	82	41.0	41.0	94.0
	(Selangor,				
	Wilayah				
	Persekutuan				
	Kuala				
	Lumpur,				
	Putrajaya)				
	Northern	10	5.0	5.0	99.0
	(Perlis,				
	Kedah,				
	Penang,				
	Perak)				

East	2	1.0	1.0	100.0
Malaysia				
(Sabah,				
Sarawak)				
Total	200	100.0	100.0	

Table 4.2.9a shows the nationality and residential distribution of the respondents. It shows 92.5% is Malaysian and majority of them are living in central and east coast of Malaysia. There is only 11.5% and 5% from southern region and northern region and 1% from East Malaysia.

4.2.10 Ethnicity

Table 4.2.10a Ethnicity

What is your ethnicity?

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Malay	93	46.5	46.5	46.5
	Chinese	89	44.5	44.5	91.0
	India	9	4.5	4.5	95.5
	Others	9	4.5	4.5	100.0
	Total	200	100.0	100.0	

Table 4.2.10a shows the ethnicity of respondents. Majority of the respondents are Malay and Chinese which is 46.5% and 44.5% respectively. There is only 4.5% each is India and others.

4.3 Preliminary Test for Actual Study

4.3.1 Factor Analysis

A factor analysis was conducted based on 25 questions in the questionnaire that measuring consumers' purchase intention on water purifier in Malaysia. The reliability and the validity on the data collected were tested prior to actual study. Meanwhile, KMO analysis is also used to assess the relationship among the variables. It has been stated by Hair et al. (2010) that the minimum value of KMO at 0.6 is adequate for sampling analysis

and value which more than 0.8 is considered useful and it is a good factor analysis indicator. However, if the KMO value is less than 0.6, the sampling is not adequate for sampling analysis and remedial action should be taken (Hair et al., 2010)

Table 4.3.1a KMO and Barlett's Test for Actual Study

KMO and Bartlett's Test

Kaiser-Meyer-Olkin N	.846	
Adequacy.		
Bartlett's Test of	Approx. Chi-Square	3085.504
Sphericity	df	300
	.000	

Refer the above table 4.3.1a, KMO value is at 0.846 which indicates an excellent sampling adequacy. Meanwhile, the Bartlett's test of Sphericity is significant where the p<0.05 also supporting that the sampling is adequate.

Table 4.3.1b Communalities of Actual Study

Communalities						
	Initial	Extraction				
PI 1: Water Purifier can purify the water and fit for	1	0.583				
drinking.	1	0.363				
PI 2: Water Purifier can replace the existing type of	1	0.587				
water purification system.	1	0.367				
PI 3: Using Water Purifier is beneficial.	1	0.643				
PI 4: Using Water Purifier is wise.	1	0.592				
PI 5: Using Water Purifier is interesting.	1	0.547				
CV 1: Water Purifier is easy to use.	1	0.514				
CV 2: Accessibility is still valid when abroad.	1	0.646				
CV 3 : Convenient to use.	1	0.584				
CV 4: I would find water purifier is flexible to use	1	0.551				
CV 5: Using water purifier would make me	1	0.671				
perform my daily water intake more quickly.	1	0.071				
SE 1 : Satisfied with the security system while	1	0.58				
shopping online.	1	0.36				
SE 2: Prefer customer's information is kept private	1	0.701				
and confidential while shopping online.	1	0.701				
SE 3: Prefer customer's financial information is	1	0.865				
being protected while shopping online.	1	0.803				
SE 4: Prefer customer's payment credentials are	1	0.796				
secured while shopping online.	1	0.790				

SE 5: Customer being ensured by protection against risk of fraud and financial loss while shopping online.	1	0.681
SI 1: People who influence my behavior think that I	1	0.632
should use water purifier.		
SI 2: My friend think that I should use water purifier.	1	0.645
SI 3: Using water purifier is considered a status symbol among my friends.	1	0.65
SI 4: People who are important to me expect me to use water purifier.	1	0.698
SI 5: People who are important to me are likely to recommend using water purifier.	1	0.67
SP 1 : I believe that using water purifier will improve my living style.	1	0.648
SI 2: Getting water intake, 2 more in hassle.	1	0.694
SP 3: It will save my time for using water purifier.	1	0.774
SP 4: Using water purifier can get fast response.	1	0.759
SP 5: 2 more waiting time/delay on water intake.	1	0.85
Extraction Method: Principal Component Analysis.		

Table 4.3.1b above shows a communalities ratio of variances majority of the value are above 0.6. Communalities that are below 0.5 is considered an insufficient representative to use for factor analysis. However, most of the variables are still above 0.5, thus, it is still indicating as sufficient representative. The proportion of each variance of variable in that row and the higher the communality, it indicates the larger amount of variance is extracted in that variable by the factor solution.

Table 4.3.1c Total Variance Explained for Actual Study

Total Variance Explained

		Initial Eigenva	Extraction	Sums of Square	red Loadings	
		% of	Cumulative		% of	Cumulative
Component	Total	Variance	%	Total	Variance	%
1	8.369	33.477	33.477	8.369	33.477	33.477
2	3.342	13.370	46.846	3.342	13.370	46.846
3	1.946	7.783	54.629	1.946	7.783	54.629
4	1.529	6.118	60.747	1.529	6.118	60.747
5	1.238	4.952	65.698	1.238	4.952	65.698
6	.981	3.926	69.624			
7	.944	3.776	73.401			
8	.781	3.124	76.525			

9	.680	2.721	79.246	
10	.666	2.664	81.910	
11	.543	2.173	84.083	
12	.517	2.070	86.153	
13	.428	1.714	87.867	
14	.404	1.617	89.484	
15	.385	1.541	91.025	
16	.349	1.395	92.420	
17	.309	1.236	93.655	
18	.294	1.175	94.831	
19	.261	1.046	95.877	
20	.245	.979	96.855	
21	.237	.949	97.804	
22	.176	.704	98.508	
23	.159	.635	99.143	
24	.142	.568	99.711	
25	.072	.289	100.000	

Extraction Method: Principal Component Analysis.

The above table 4.3.1c shows that the actual factors that were extracted from column "Extraction sums of squared loadings" It extracted per eigenvalue is greater than 1 which is a common criterion factor to consider useful and a total of five factors, i.e. one DV and four IVs were extracted which accounted 65.69% of observed variance that with communalities ranging from 0.514 to 0.865. The first factor is related to consumer purchase intention which is a DV and it is accounted for 33.477% of the observed variance, whereas second factor to fifth factor appeared to reflect on conveniences, security, social influence and speed which are accounted for 32.223%.

4.3.2 Reliability Test for Actual Study

Table 4.3.2a Reliability Test for DV

Reliability Statistics for Consumer Purchase Intention

Cronbach's Alpha	N of Items
.797	5

Table 4.3.2b Reliability Test for IVs

Reliability Statistics for Conveniences

Cronbach's Alpha	N of Items
.710	5

Reliability Statistics for Security

Cronbach's Alpha	N of Items
.833	5

Reliability Statistics for Social Influence

Cronbach's Alpha	N of Items
.812	5

Reliability Statistics for Speed

Cronbach's Alpha	N of Items
.906	5

The above table 4.3.2a shows the reliability test for DV in actual study and its Cronbach's alpha value of 0.797 for consumer purchase intention whereas table 4.3.2b shows the reliability test for IVs in actual study. Its Cronbach's alpha value of 0.71 for conveniences, 0.833 for security, 0.812 for social influence which is slightly lower than pilot test result and 0.906 for speed. This has been confirmed that all items are consistent and are suitable to apply for further study and analysis.

4.4 Hypotheses Testing

4.4.1 Multiple Regression

Multiple regression is to determine whether there is relationship exist between the variables and whether the framework is able to explain the phenomenon of the study. If the R^2 is > 0.4, then the model is fit. If the R^2 is < 0.4, then the model is not fit and the framework is not able to explain the phenomenon. If the R^2 is closer to 1, the stronger the model is fit (Hair et al. 2010). In this study, the consumer purchase intention over the four independent variables, i.e conveniences, security, social influence and speed).

Table 4.4a Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.723ª	.523	.513	.37055

The above table 4.4a described r and r square values of the study. Based on the finding, the r value is +0.723 and r square is +0.523. It means that 72.3% of the consumer purchase intention affected by the IVs and the model has a positive linear pattern with 52.3% variation within the data, this also met the variation rule of thumb at a minimum of 0.4. This model is fit for study.

4.4.2 Anova for Multiple Regression

Table 4.4.2a Anova Test

			ANOVA ^a			
		Sum of				
Mode	1	Squares	df	Mean Square	F	Sig.
1	Regression	27.558	1	27.558	191.090	.000 ^b
	Residual	28.554	198	.144		
	Total	56.112	199			

a. Dependent Variable: Dependent

According to Saunders (2015), one-way anova is to test at least three or more means to see whether they are equal or significantly different from each other. If the p-value is <0.05, it is significance. Based on the above table 4.4.2a, the anova value is below p-value 0.05. Thus, the test result means that it is statistically significant. In conclusion, the IVs in this study are accepted and there is a significant different between consumer purchase intention (DV) and conveniences, security, social influences and speed (IVs).

4.4.3 Beta Coefficients – To determine on which factor has the highest influence on DV for multiple regression

Table 4.4.3a Coefficients Result

	Coefficients ^a								
Unstandardized			Standardized		Colli		nearity		
Coeffic		cients	Coefficients			Statist	ics		
			Std.						
Model		В	Error	Beta	t	Sig.	Tolerance	VIF	
1	(Constant)	1.030	.248		4.146	.000			
	Conveniences	.309	.069	.295	4.462	.000	.558	1.792	
	Security	.079	.044	.097	1.802	.073	.853	1.173	
	Social	.115	.043	.152	2.690	.008	.764	1.309	
	Influences								

b. Predictors: (Constant), Conveniences, Security, Social Influence, Speed

Speed	.256	.051	.371	5.008	.000	.446	2.244
Speeu.		.051	.5 / 1	2.000	.000		

a. Dependent Variable: Dependent

The above table 4.4.3a indicates that whether the independent variables (conveniences, security, social influence and speed).

Thus, the multiple regression model is:

$$\gamma = \beta 0 + \beta 1$$
(conveniences) + $\beta 2$ (security) + $\beta 3$ (social influence) + $\beta 4$ (speed)

Purchase intention = 1.03 + 0.309(conveniences) + 0.079(security) + 0.115(social influence) + 0.256(speed)

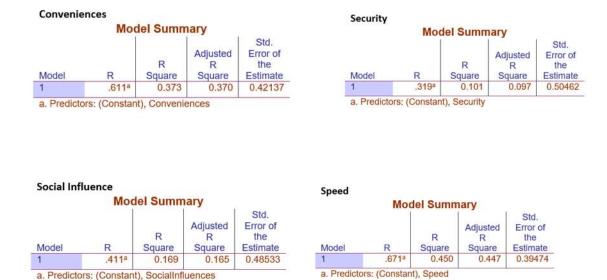
It shows that conveniences, social influences and speed have p-value below 0.05 except security with its p-value above 0.05. This means that conveniences, social influences and speed have significant relationship with consumer purchase intention in Malaysia and they have the influence in the water purifier industry whereas security has a p-value 0.073, this means that it has no significant relationship with consumer purchase contributes significant relationship to the dependent variable with its p-value. Intention. From the table, speed and conveniences have the highest beta-coefficients. This means that both variables have higher influence on consumer purchase intention as compared to social influences and security.

4.4.4 VIF / Multicollinearity for Multiple Regression

Multicollinearity occurs when two or more independent variables are highly correlated with one another in a regression model. Hair et al. (2017) stated, if Variance Inflation Factors (VIF) exceeds 5, it is high multicollinearity between this independent variable and the others whereas VIF = 1, there is no correlation between the independent variable and the other variables. Based on table 4.4.3a, the VIF value is between 1-4, this means that there is no multicollinearity issue in all of these variables that will lead to skewness.

4.4.5 Simple Regression

Table 4.4.5a Simple Regression Model Summary



The above table 4.4.5a described r and r square values of the study in each independent variable. Based on the finding, the r value for conveniences is +0.611 and r square is +0.373. It means that 61.1% of the consumer purchase intention affected by CV and the model has a positive linear pattern with 37.3% variation within the data.

The r value for security is +0.319 and r square is +0.101. It means that 31.9% of the consumer purchase intention affected by SP and the model has a positive linear pattern with 10.1% variation within the data.

The r value for social influence is +0.411 and r square is +0.169. It means that 41.1% of the consumer purchase intention affected by SI and the model has a positive linear pattern with 16.9% variation within the data.

Lastly, the r value for speed is +0.671 and r square is +0.45. It means that 67.1% of the consumer purchase intention affected by SP and the model has a positive linear pattern with 45% variation within the data.

4.4.6 Anova for Simple Regression

Table 4.4.6a Anova for Simple Regression



Based on the above table 4.4.6a, all the anova value is below p-value 0.05. Thus, the test result for each IV means that it is statistically significant. In conclusion, the IVs in this study are accepted and there is a significant different between consumer purchase intention (DV) and conveniences, security, social influences and speed (IVs).

4.4.7 Beta Coefficients – To determine on which factor has the highest influence on DV for simple regression

Table 4.4.7a Beta Coefficients Result for Simple Regression

			C	coefficients	Î		i i	
Mod	iel	Unstanda Coeffic B		Standardized Coefficients Beta	t	Sig.	Collinearity	Statistics
1	(Constant)	1.419	0.223	131,0140	6.363	0.000		
	Conveniences	0.638	0.059	0.611	10.864	0.000	1,000	1.000

Security			c	coefficients	7		Ē	
Model		Unstanda Coeffici	100 Martin 100 mm	Standardized Coefficients Beta	4	Sig.	Collinearity	Statistics
1	(Constant)	2.728	0.234		11.660	0.000		
	Security	0.261	0.055	0.319	4.728	0.000	1.000	1.000

		C	coefficients	Ŷ		ì	
Model		dardized icients Std. Error	Standardized Coefficients Beta		Sig.	Collinearity	Statistics
1 (Constant)	2.851	0.157	Deta	18.185	0.000	roitranic	VII
SocialInfluence	oes 0.311	0.049	0.411	6.342	0.000	1.000	1.000

Speed			C	coefficients	1		ı	
Model		Unstanda Coeffici		Standardized Coefficients Beta	t	Sig.	Collinearity	Statistics
1	(Constant)	2.123	0.136		15.575	0.000		
	Speed	0.463	0.036	0.671	12.732	0.000	1.000	1.000

Based on table 4.4.7a, it shows that all IVs have p-value below 0.05. This means that conveniences, security, social influences and speed have significant relationship with consumer purchase intention in Malaysia and they have the influence in the water purifier industry. From the table, conveniences and speed have the highest beta-coefficients. This means that both variables have higher influence on consumer purchase intention as compared to social influences and security.

4.4.8 VIF / Multicollinearity for Simple Regression

Based on table 4.4.7a, the VIF value is all at 1, this means that there is no correlation between independent variable and the other variables that will lead to skewness.

4.5 Summary of the Findings base on Simple Regression

Table 4.5a Summary of the Findings

Hypotheses	Result
H1: Conveniences factor has a significant relationship with purchase intention of consumers on water purifier in Malaysia.	Accepted
H2: Security factor has a significant relationship with purchase intention of consumers on water purifier in Malaysia.	Accepted
H3: Social influence factor has a significant relationship with purchase intention of consumers on water purifier in Malaysia.	Accepted
H4: Speed factor has a significant relationship with purchase intention of consumers on water purifier in Malaysia.	Accepted

4.6 Conclusion

As a conclusion, the adequacy, reliability and internal consistency of the data collected through questionnaire have been discussed in a form of quantitative analysis. The Data was analysed by using a SPSS computer software. Descriptive analysis and reliability tests had been conducted to test on demographic profile. A pilot test has also been conducted to test on the its sampling adequacy and reliability through factor analysis for DV and IV. Overall, the result indicates that DV and IVs do have a significant influence on consumer purchase intention. Lastly, in the VIF test, it indicated all VIF is between 1-4, thus, there is no multicollinearity issue among the IVs.

Chapter 5 Conclusion and Recommendation

5.0 Overview

Chapter 5 will discuss about the results of the study and its findings which could be used for the future contribution to the industry and academic. Meanwhile, limitations, recommendations and personal reflection of the study will also be discussed.

5.1 Discussion of the Findings and Results

5.1.1 Findings and Results

It has been found that there is no multicollinearity issue among the IVs and therefore, each variable is correctly predicted the relation with dependent variable. The results of the study shown that all IVs are having significant influence with the purchase intention. The below table 5.1.1a presents the ranking of importance of each factor to purchase intention of water purifier. As arranged in order, the ranking of the factors is: Speed, Conveniences, Social Influence and Security.

Table 5.1.1a Hypotheses in Ranking

Hypotheses	Hypotheses	Finding	Conclusion
	Description		
H1	H1: Conveniences		Supported
	factor has a significant	t value = 10.864	
	relationship with	p-value =0.00	
	purchase intention of		
	consumers on water		
	purifier in Malaysia.		
H4	H4: Speed factor has a		Supported
	significant relationship	l .	
	with purchase intention	p-value =0.00	
	of consumers on water		
	purifier in Malaysia.		
H3	H3: Social influence	, ,	Supported
	factor has a significant		
	relationship with	p-value =0.00	
	purchase intention of		
	consumers on water		
	purifier in Malaysia.		
H2	H2: Security factor has a		Supported
	significant relationship		
	with purchase intention	p-value =0.00	
	of consumers on water		
	purifier in Malaysia.		

Based on table 5.1.1a, conveniences is significantly influence to purchase intention among consumers in Malaysia ($\beta = 0.638$; p-value = 0.000). In other words, this shows that conveniences is significant influence on consumer purchase intention. Therefore, **H1** is supported. This result is aligned with the findings of previous study (i.e. Maliva, Mbilinyi and Mkwizu et al., 2018) by which convenience is significantly influence on consumer purchase intention.

The result of speed is also show that it has a significant influence on consumer purchase intention in Malaysia (β = 0.463; p-value = 0.000). Thus, **H4 is supported**. This result is aligned with the findings of previous study (i.e. Dey, Al-Karaghouli, and Minov et al., 2019), by which speed is one of the significant factors which has a positive impact on consumer purchase intention in Malaysia.

The result of social influence is also show that it has a significant influence on consumer purchase intention in Malaysia ($\beta = 0.311$; p-value = 0.000). Thus, **H3 is supported**. The result is contradict with previous study that not supported on the significance of social influence is influencing on consumer purchase intention (e.g Varshneya, Pandey and Das,

2017) because in the previous study, social influence does not play a role in influencing consumers for the products which are yet to penetrate among mass consumers and it takes time for a new product to develop a social norm.

Lastly, the result of security is found that it has significant relationship with the consumer purchase intention ($\beta = 0.261$; p-value = 0.000). Thus, **H2 is supported**. This result is also consistent with the findings by Gopalakrishna, Kassa, and Getnet et al. (2018) which security has a positive effect on purchase intention because consumers are feeling more secured and believe that what kind of products, they buy today will be consistent enough to satisfy their needs. Occasionally, security is meant for consumers who shop and search online. However, most of them may just want to obtain information online, and then purchase the item at another channel.

5.2 Recommendations

The above analyses and results had led to few recommendations below for the marketers of water purifiers industry as a reference on how to gain more attention from the consumers and be more competitive in the market.

Conveniences

Nowadays, the water purifier market is becoming more and more intense competition as many competitors have been existed as time goes. Consumers are now being more alerted and carefully in purchasing those durable products to save their non-monetary costs such as time and effort. They will get more information to compare the costs and benefits that a seller can provide to them. Consumers are no longer only look for water quality that produced by the water purifier, they will also consider its maintenance cost and whether the product is manufactured by a reliable manufacturer which the product is registered so that the product quality can be warranty. Besides, the design of the water purifier also a concern in consumers' point of view. The design should be appealing and match with consumers' home and suits the look of consumer house and necessity.

Therefore, it is recommended that the companies should look into these areas of improvement and make a benchmark to positioning their product which able to stand out from the market. A good water purifier should be ensured the wellness of consumer family members and protect them from germs. Thus, the more the data that a company can provide the better they are being supportive and stand firm in the market.

Security

The world wide web has made online shopping in an altogether more pleasant, costeffective and user-friendly experience. However, buying things online has its risks. Online shopping is a big business in today's world, more and more consumers around the world are turning to the Internet to buy goods. This has also attracted the attention of cybercriminals who are keen to exploit individuals that benefiting from convenience, affordability and selectivity, making the Internet a compelling place.

Based on the data collected, there are 79% respondents were agreed and strongly agree that the security of purchasing a product online is important to them. Despite of this factor had been tested as insignificant relationship with consumer purchase intention on water purifier. However, it is having positive effect with consumer purchase intention in other study (Gopalakrishna, Kassa, and Getnet et al., 2018) as mentioned earlier.

Thus, it is recommended that the companies should pay more attention and enhance on the online purchase security when they have more intends to develop their market platform online and ensure customers personal information are being protected.

Social Influence

Today, social media (such as Facebook, Instagram, Twitter, etc.) has become a platform for individuals to share photos of friends and family. Social media has developed into a more influential platform, especially for businesses. Social media has now become an important part of the company's marketing strategy. As a result, many companies also benefit from the buying influence of social media.

Based on the data collected, there are 39% respondents were agreed and strongly agree that they were being influenced by friends, family members or social influencers to purchase water purifier. However, there were 41% respondents were neutral. This means that they were in neutral position when purchasing water purifier. However, the result has been tested that it is significant to the consumer purchase intention on purchasing water purifier.

Thus, it is recommended that the companies need to have a strong social media presence in order to drive more sales by allowing the consumers to share their experiences on the products and having discussion among the consumers surrounding the brand and product. By doing this, the companies can have more understanding on the consumer purchase intention and behaviours.

Speed

Speed to market and speed in general is essential to the business because they are part of the customer experience. For example, if customers really want a specific option or feature, competitors may beat the company to the punch in which they can deliver a better experience to the consumers. Speed in essential in service. In other words, if a consumer has to wait the company to expedite a transaction and each moment of waiting also can lead to frustration, anger, and increased expectations. Thus, if things take too long, consumers become suspicious that the company is falling behind or unable to meet their expectations.

Thus, it is recommended that the companies should provide product quality and service ability to fulfill consumers satisfaction at the same time and keep happy customers. For example: give training to employee in order to improve on customer service. Beside, the companies should also to include customer service performance as an objective into employee's KPI scorecard as a performance measurement index.

5.3 Contributions

5.3.1 Contributions to the Industry

The result of this study could be useful for marketers in water purifier industry to further understand the factors which would be influenced consumer purchase intention towards water purifier in Malaysia. It can be used as a guideline for other similar products such as air purifier and others durable products. Meanwhile, it could also be able to help the companies by providing further understanding of some unrealized factors that exists in the companies. As such, companies may rebuild their policy or plans to benchmark in the industry if necessary, so that they can be benefit and sustainable in the competitive markets.

The ultimate outcome will be benefited to the country through higher GDP when consumers willing to spend to buy on the products and increased economic value in the country.

5.3.2 Contributions to Academicians

The research on consumer purchase intention has been done by many academic researchers but in different context (Jaafar et al., 2014; Goyal, 2014; Yusuf et al., 2018; Toor et al., 2017). This study was carried out with the intention to fill the gap for literature that is missing in Malaysia context. Meanwhile, it is also help to improve the knowledge of academicians.

5.4 Limitation of the Study

There are few limitations of this study. Firstly, the implementation of data collection method. The researcher was inexperience in collecting the data via online such as google form. The results are mostly collected from central region in Malaysia only due to the survey form were sent to friends or friends of friends in nearby location. Thus, the data collected cannot be generalized to other regions. Secondly, the sample size collected is relatively small due to time constraints which could not able to identify significant relationships within the data set. The larger the sample size, the more accurate the results. Lastly, the previous researches about the topic and the context in this study is limited and it is not easy to find the studies with similar topic and context at the same time. Thus, future studies can be carried out by collecting larger sample size and bring more useful insights in the concerned field.

5.5 Future Research Direction

This research study is only focused and explored on the relationship between the consumer purchase intention and the independents factors which believed will influence the purchase intention such as: conveniences, security, social influences and speed in the context of water purifier industry in Malaysia. However, there are some areas which have not been covered on consumer purchase intention in the water purifier industry. Larger sample size is needed for future research because it could determine and identify the important relationship in the data set. Future researchers may consider to distribute the questionnaire via different channel instead merely online. Nevertheless, the researcher believes that this research data could be useful to other researchers for future reference that is exploring to the consumer purchase intention whether it is for water purifier industry or other durable products' industries.

5.6 Personal Reflection

In this section, it is going to share the experiences faced by the researcher throughout the study of this project. It is not only enhanced the knowledge of marketing but also the skills upon working through data mining, analyzing information and writing. New learning skill is also acquired by using statistical tool to run the data analyses and interpreting the results.

At first, it was very critical in selecting the topic, determining an appropriate method of the study and collaborating closely with the supervisor to seek for the advices and guidance on how to proceed and complete the project as smoothness as possible.

Due to time constraints, there had been many sleepless nights for researching suitable literatures for this study and transfer them into own writing. The effort that invested is satisfying and rewarding as some extensive knowledge also have been gained through reading the journals. In the process of reading and researching, the writing skill had also been enhanced where it must be written in academically way. Therefore, it is really a good practice and learning experience gained throughout this project which also will be helpful to others by sharing this experience and guiding others. Collection of data, analyzing the data and interpreting the results in a statistically way was also an interesting part of this project. It was interesting as well when collaborating with some course mates to help on getting respondents for questionnaires and other discussions during this covid-19 difficult time where everyone is advised to stay at home.

5.7 Conclusion

All the information gathered for this research, it is proven that understanding consumer purchase intention is crucial for marketers to improve their business by formulating better marketing strategies. This research aims to understand the consumer purchase intention on water purifier with examining of four factors: Conveniences, Security, Social Influences and Speed in Malaysia context. Three factors were aligned with previous studies and one factor was inconsistent with previous study. The results support previous studies that shows conveniences, security, social influence and speed are all having positive relationship with purchase intention.

From the study in areas like purchase intenton and other variables conveniences, security, social influence and speed for future research that may be directly or indirectly helping the marketers in developing marketing strategies. It highlighted consumers purchase intention to purchase water purifier which is a current trend in the country especially increasing consumer awareness on the importance of the clean water and health consciousness. The lack of understanding consumer purchase intention effectively on water purifier could lead to the lost of business in the competitive market. A marketer needs to understand the factors which influencing consumer purchase intention for water purifier which indeed to identify the factors in attracting consumers especially who are yet a water purifier consumer or perhaps convert regular consumers into loyal consumers for the company.

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Appendix 1: Table of Literature Review

Author/researcher	Title of the Work	Journal	Outcome of the Study	Remarks/Gaps Identified	
Toor, Husnain, and Husnain (2017)	The impact of social network marketing on consumer purchase intention in Pakistan: Consumer engagement as a mediator	Asian Journal of Business and Accounting, 10(1), pp.167-199.	The findings had proven that social network marketing is found to have a significant effect on consumer purchase intention in the context of Pakistan.	The study was conducted using close ended questionnaires. Future research may consider employing interviews as an approach to better understand social media users and their insights and experiences which can influence their commitment and purchase intentions.	
Maliva, Mbilinyi, and Mkwizu (2018)	Factors Influencing Consumers' Convenience Shopping of Industrial Products: A Study of Kinondoni District	Business Management Review, 21(1), pp.23- 36.	With supported hypothesis, there are significant relationship between consumer's convenience shopping and all IVs tested.	The study could be biased due to the findings were applicable to Kinondoni district only not the entire country and only retail shops where only low- and medium-income shoppers can shop. Future studies would be needed to cover other types and levels of shopping.	
Gopalakrishna, Kassa, and Getnet (2018)	Influence of Emotional Buying Behaviour on FMCG Products: A Case Study on Pathanjali Products in Srikakulam District, AP.	Journal of Exclusive Management Science, 7(1).	Results identified that, buying behaviour has significant relationship with 3 IVs (sense of wellbeing, security and belongingness) and has no relationship with another 2 IVs (Uniqueness and environmental friendliness)	Further research could be conducted to different segment of consumers so that the result may be more reflective to actual consumer buying behaviours on Patanjali products at Srikakulam Town, Andhrapradesh.	

Varshneya, Pandey, and Das (2017)	Impact of Social Influence and Green Consumption Values on Purchase Intention of Organic Clothing: A Study on Collectivist Developing Economy	Global Business Review, 18(2), pp.478-492.	With supported hypotheses, the outcomes highlighted that for products at the introductory stages of lifecycle, social influence does not play a vital role in a collectivist culture.	This study is limited to consumers in the age of 20-40 and results are limited to organic clothing and therefore cannot be generalized to other sectors. Further research could be conducted in different age groups, cultures and product categories.
Sharma and Garga (2020)	A Study on Impact of Product Perception, Perceived Risk and Online Shopping Experience on Customers' Satisfaction in Online Shopping.	Pramana Research Journal, 10(1), pp.97- 105.	With supported hypotheses, customers' perception has significant impact on satisfaction regarding online shopping was accepted.	This study was limited to selected respondents and there were only three variables were considered for study. There may be other factors which can be influenced customers' perception and satisfaction.

Appendix 2: Questionnaire Form

Questionnaires

Research Title: Factors Influencing Consumer Purchase Intention on Water Purifier in
Malaysia
Please tick (v) the following answer box for each question.
1. Are you using water purifier at home?
□ Yes
□ No
2. Do you consider purchase water purifier in the future?
□ Yes
□ No

Section A: Demographic Profile

1.	Gender
	□ Male
	□ Female
2.	Age
	□ <20
	□ 21-30
	□ 31-40
	□ 41-50
	□ >50

3.	What is your marital status?
	□ Single, never married
	□ Married
	□ Widow
	□ Divorced
	□ Separated
4.	Do you have children?
	□ Yes
	□ No
5.	Monthly Income
	□ < RM3,000
	□ RM3001-RM5,000
	□ RM5,001-RM7,000
	□ RM7,001-RM9,000
	□ >RM9,000
6.	Education
	☐ High School / SPM / O-Level / UEC / Certificate
	□ Diploma
	□ Bachelor Degree
	□ Postgraduate (Master / PhD / Professor)
	□ Others
7.	Status
	□ Student
	□ Employee
	□ Businessman
	□ House-wife
	□ Retiree

8.	Are you Malaysian?
	□ Yes
	□ No
9.	Which region in Malaysia do you live?
	🗆 East Coast (Kelantan, Pahang, Terengganu)
	□ Southern (Negeri Sembilan, Melacca, Johor)
	□ Central (Selangor, Wilayah Persekutuan Kuala Lumpur, Putrajaya)
	□ Northern (Perlis, Kedah, Penang, Perak)
	□ East Malaysia (Sabah, Sarawak)
10	. What is your ethnicity?
	□ Malay
	□ Chinese
	□ India
	□ Others

Section B

Please indicate your degree of agreement on the following statements by circling the numbers given ranging from:

Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree = 5

Dependant Variable – Purchase Intention of Water Purifier

	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
PI1	Water Purifier can purify the water and fit for drinking.	5	4	3	2	1
PI2	Water Purifier can replace the existing type of water purification system.	5	4	3	2	1
PI3	Using Water Purifier is beneficial.	5	4	3	2	1
PI4	Using Water Purifier is wise.	5	4	3	2	1
PI5	Using Water Purifier is interesting.	5	4	3	2	1

Independent Variable

(i) Conveniences

	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
CV1	Water Purifier is easy to use.	5	4	3	2	1

CV2	Accessibility is still valid when abroad.	5	4	3	2	1
CV3	Convenient to use.	5	4	3	2	1
CV4	I would find water purifier is flexible to use.	5	4	3	2	1
CV5	Using water purifier would make me perform my daily water intake more quickly.	5	4	3	2	1

(ii) Security (SE)

	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
SE1	Satisfied with the security system while shopping online.	5	4	3	2	1
SE2	Prefer customer's information is kept private and confidential while shopping online.	5	4	3	2	1
SE3	Prefer customer's financial information is being protected while shopping online.	5	4	3	2	1
SE4	Prefer customer's payment credentials are secured while shopping online.	5	4	3	2	1
SE5	Customer being ensured by protection against risk of fraud and financial loss while shopping online.	5	4	3	2	1

(iii) Social Influence (SI)

Statement	rongly gree	gree	eutral	sagree	rongly isagree
	St _i	Ag	N	Di	St. Di

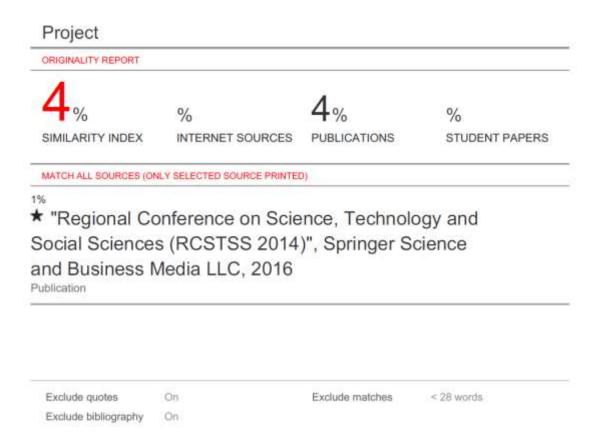
SI1	People who influence my behaviour think that I should use water purifier.	5	4	3	2	1
SI2	My friend think that I should use water purifier.	5	4	3	2	1
SI3	Using water purifier is considered a status symbol among my friends.	5	4	3	2	1
SI4	People who are important to me expect me to use water purifier.	5	4	3	2	1
SI5	People who are important to me are likely to recommend using water purifier.	5	4	3	2	1

(iv) Speed (SP)

	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
SP1	I believe that using water purifier will improve my living style.	5	4	3	2	1
SP2	Getting water intake, no more in hassle.	5	4	3	2	1
SP3	It will save my time for using water purifier.	5	4	3	2	1
SP4	Using water purifier can get fast response.	5	4	3	2	1
SP5	No more waiting time/delay on water intake.	5	4	3	2	1

Appendix 3: Similarity Index





Appendix 4: Initial Declaration Form

INITIAL DECLARATION FORM

DECLARATION BY APPLICANT

- I undertake, to the best of my ability, to abide by accepted ethical principles in carrying out the study.
- (ii) I undertake to explain the nature of the study and all possible risks to potential participants, to the extent required to comply with both the letter and the spirit of my replies to the foregoing questions.
- (iii) Data relating to participants will be handled with great care. No data relating to named or identifiable participants will be passed on to others without the written consent of the participants concerned, unless they have already consented to such sharing of data when they agreed to take part in the study.
- (iv) All participants will be informed (a) that they are not obliged to take part in the study, and(b) that they may withdraw at any time without disadvantage or having to give a reason.

Where the participant is a minor or is otherwise unable, for any reason, to give full consent on their own, references here to participants being given an explanation or information, or being asked to give their consent, are to be understood as referring to the person giving consent on their behalf.

(v) All personal data that is collected will be protected and kept for 2 years.

Enter your name here. TAN WAL SUN	G. Date: 13 JAN 2020						
If you are a member of staff, please obtain the signature of your line manager to indicate their agreement to this application:							
(Signature)	(Name in BLOCK CAPITALS and position within the School)						
DECLARATION BY SUPERVISOR							
its aims and methods as a piece of research	appropriately vetted within the School in respect of n. I accept responsibility for guiding the applicant so ne protocol and with any applicable ethical code(s).						
Wong Chee Hoo	15/1/2020						
Enter your name							