FACTORS AFFECTING GENERATION Y CONSUMERS' PURCHASE INTENTION TOWARDS ORGANIC PRODUCTS IN MALAYSIA

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- (1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing the research project.
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TABLE OF CONTENTS

| | Page |
|--|------|
| Copyright Page | ii |
| Declaration | iii |
| Acknowledgement | iv |
| Table of Contents | v |
| List of Tables | X |
| List of Figures | xi |
| List of Abbreviations | xii |
| List of Appendices | xiii |
| Preface | xiv |
| Abstract | XV |
| CHAPTER 1: RESEARCH OVERVIEW | 1 |
| 1.0 Introduction | 1 |
| 1.1 Background of Study | 1 |
| 1.1.1 Organic Products Definition | 3 |
| 1.2 Problem Statement | 4 |
| 1.3 Research Objectives | 6 |
| 1.3.1 General Objective | 6 |
| 1.3.2 Specific Objectives | 7 |
| 1.4 Research Questions | 7 |
| 1.5 Hypotheses Development | 8 |
| 1.6 Significance of the Study | 8 |
| 1.7 Chapter Layout | 10 |
| 1.8 Conclusion | 12 |
| CHAPTER 2: LITERATURE REVIEW | 13 |
| 2.0 Introduction | 13 |
| 2.1 Review of the Literature | 14 |
| 2.1.1 Purchase Intention towards Organic Products. | 14 |
| 2.1.2 Health Concerns | 15 |

| 2.1.3 Environmental Concerns | 16 |
|---|----|
| 2.1.4 Perceived Value | 18 |
| 2.1.5 Availability | 19 |
| 2.1.6 Consumer Attitudes | 21 |
| 2.2 Relevant Theoretical Models Review | 23 |
| 2.2.1 Behavioural Attitudes | 24 |
| 2.2.2 Subjective Norms | 25 |
| 2.2.3 Perceived Behavioural Control | 25 |
| 2.2.4 Limitations of the Theory of Planned | |
| Behaviour | 26 |
| 2.3 Proposed Conceptual Framework | 27 |
| 2.4 Development of Hypotheses | 29 |
| 2.4.1 The relationship between Health Concerns | |
| and Generation Y consumer attitudes | 29 |
| 2.4.2 The relationship between Environmental | |
| Concerns and Generation Y | |
| consumer attitudes | 29 |
| 2.4.3 The relationship between Perceived Value | |
| and Generation Y consumer attitudes | 30 |
| 2.4.4 The relationship between Availability | |
| and Generation Y consumer attitudes | 31 |
| 2.4.5 The relationship between Consumer Attitudes | |
| and Intention to purchase organic products | 31 |
| 2.4.6 Testing the mediation effect of Consumer | |
| Attitudes between Availability, and | |
| Intention to purchase organic products | 32 |
| 2.5 Conclusion. | 33 |
| CHAPTER 3: METHODOLOGY OF STUDY | 34 |
| 3.0 Introduction | 34 |
| 3.1 Research Design | 34 |
| 3.2 Data Collection Method | 35 |
| 3.3 Sampling Design | 36 |
| 3.4 Research Instrument | 37 |

| 37 |
|----|
| 38 |
| 39 |
| 39 |
| 40 |
| 44 |
| 44 |
| 44 |
| 45 |
| 45 |
| 46 |
| 46 |
| 46 |
| |
| 47 |
| 47 |
| 48 |
| 48 |
| 49 |
| |
| 49 |
| 49 |
| 51 |
| 51 |
| 51 |
| 53 |
| 54 |
| 54 |
| 54 |
| 54 |
| 55 |
| 56 |
| 57 |
| |

| 4.1.1.4 Education Level | 58 |
|--|----|
| 4.1.1.5 Occupation | 59 |
| 4.1.1.6 Relationship Status | 60 |
| 4.1.1.7 Income Levels | 61 |
| 4.1.2 Respondent's General Information | 62 |
| 4.1.2.1 Have consumed or used organic | |
| products before | 62 |
| 4.1.2.2 Have purchase organic products | |
| before | 63 |
| 4.1.2.3 Frequency of Organic Products | |
| Purchase | 64 |
| 4.1.2.4 Influence of Pricing on | |
| Purchase Decision | 65 |
| 4.1.2.5 Influence of Packaging on | |
| Purchase Decision | 66 |
| 4.1.2.6 Shopping Location | 67 |
| 4.1.2.7 Organic Products Purchased | 68 |
| 4.2 Scale Measurement | 69 |
| 4.2.1 Reliability Analysis | 69 |
| 4.3 Inferential Analysis | 70 |
| 4.3.1 Multiple Regression Analysis | 70 |
| 4.3.2 Simple Regression Analysis | 73 |
| 4.3.3 Mediator Analysis | 75 |
| 4.4 Conclusion | 77 |
| CHAPTER 5: DISCUSSION, IMPLICATIONS AND CONCLUSION | 78 |
| 5.0 Introduction | 78 |
| 5.1 Summary of Statistical Analysis | 78 |
| 5.1.1 Summary of Descriptive Analysis | 78 |
| 5.1.1.1 Respondents' Profile | 78 |
| 5.1.1.2 Respondents' General Information | 79 |
| 5.1.2 Summary of Inferential Analysis | 79 |
| 5.1.2.1 Multiple Regression Analysis | |
| Result | 79 |

| 5.1.2.2 Simple Linear Regression Analysis | |
|---|-----|
| Result | 79 |
| 5.1.2.3 Mediator Analysis Result | 80 |
| 5.2 Discussion of Major Findings | 81 |
| 5.3 Implications of Study | 87 |
| 5.3.1 Managerial Implications | 87 |
| 5.4 Limitations of Research | 88 |
| 5.5 Recommendations for Future Studies | 89 |
| 5.6 Conclusion | 90 |
| References | 91 |
| Appendices | 105 |

LIST OF TABLES

| | | Page |
|-------------|---|------|
| Table 3.1: | Pilot Test Reliability Results | 38 |
| Table 3.2: | Origin of Constructs | . 40 |
| Table 4.1: | Respondents' Profile | . 54 |
| Table 4.2: | Age | 56 |
| Table 4.3: | Education Level | 58 |
| Table 4.4: | Relationship Status | 60 |
| Table 4.5: | Income Levels | 61 |
| Table 4.6: | Frequency of Organic Products Purchase | 64 |
| Table 4.7: | Shopping Location | 67 |
| Table 4.8: | Summary of Reliability Analysis | . 69 |
| Table 4.9: | Summary of Multiple Regression Analysis | |
| | (HC, EC, PV, AB to AT) | 70 |
| Table 4.10: | Summary of Simple Regression Analysis | |
| | (AT to PI) | . 73 |
| Table 4.11: | Summary of Mediation Analysis | |
| | (AB-AT-PI) | . 75 |
| Table 5.1: | Results on Hypotheses Testing | 81 |

LIST OF FIGURES

| | Page |
|-------------|---|
| Figure 2.1: | Theory of Planned Behaviour (TPB) Model |
| Figure 2.2: | Factors affecting Generation Y consumers' purchase intention towards organic products in Malaysia |
| Figure 3.1: | Sobel's z-test |
| Figure 4.1: | Gender |
| Figure 4.2: | Race |
| Figure 4.3: | Occupation |
| Figure 4.4: | Have consumed or used organic products before 62 |
| Figure 4.5: | Have purchase organic products before |
| Figure 4.6: | Influence of Pricing on Purchase Decision |
| Figure 4.7: | Influence of Packaging on Purchase Decision |
| Figure 4.8: | Organic Products Purchased |

LIST OF ABBREVIATIONS

HC: Health Concerns

EC: Environmental Concerns

PV: Perceived Value

AB: Availability

AT: Consumer Attitudes

PI: Purchase Intention

β: Beta

Sig.: Significance value

LIST OF APPENDICES

Appendix A: Survey Questionnaire

Appendix B: SPSS Output

Appendix C: Global organic product consumption data

Appendix D: Current Population Estimates, Malaysia, 2014 - 2016

PREFACE

Our thesis is entitled "Factors Affecting Generation Y consumers' purchase intention towards organic products in Malaysia". The reason why we choose to conduct this study is to gain an insight to the organic products industry in Malaysia via Generation Y consumers. The worldwide organic industry is a fast growing industry in which it is gaining popularity in Malaysia.

The role of organic products is becoming more important in recent times due to the improvement in standards of living in which more consumers are concerned about their health. The increase in consumer awareness on environmental issues has also put organic products on the world map as consumers look for ways to reduce their environmental impact.

In addition, this study help marketers and practitioners in the organic industry to identify the variables that helps to determine the purchase intention of Generation Y consumers. This will allow them to attract this group of consumers much easier.

Last but not least, this research may serve as a guide to academicians, future researchers and to those who wants to know more about the organic industry in Malaysia.

ABSTRACT

The primary objective of this research is to examine the factors that impact Generation Y consumers' purchase intention towards organic products in Malaysia. This research is to investigate the relationship of health concerns, environmental concerns, perceived value, availability towards consumer attitudes, the relationship between consumer attitudes and purchase intention and to test the role of consumer attitudes as a mediator between availability and purchase intention.

The research was carried out as a causal research and the information required for this research were obtained via self-administered questionnaire. Statistical Package for Social Sciences (SPSS) version 17.0 was used to analyse the data obtained from the questionnaire.

There were 300 responses that were collected and the data have been analysed and interpreted using descriptive analyses, inferential analyses and mediator analysis. All six hypotheses were supported based on the results of the analyses.

This study is particularly useful for organic marketers and practitioners in Malaysia as Generation Y consumers are considered to be the largest and wealthiest group of consumers in the country. The implications of this study, its limitation and recommendations for future researches were included in the concluding chapter to serve as a guide to the relevant stakeholders.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

The main purpose of the first chapter is to serve as a guide and summary to readers on what is being researched in this study. The chapter will have seven individual sub-chapters. The background of this study will introduce the readers to the research study and continued with the problem statement, research objectives and research questions. The hypotheses of the study will then be introduced along with the significance of this study. The chapter layout of the entire research will be included to serve as a guide to the following chapters and this chapter will be closed with the chapter conclusion.

1.1 Background of Study

The concept of organic product particularly organic foods were first introduced and commercialized during the 1940s and 1950s (Pearson, Henryks, & Jones, 2011). In recent times, organic products have gained a significant recognition within the international community due to the better standards of living and the raise in better awareness and understanding of organic products (Somasundram et.al, 2015). European countries such as Switzerland, Austria and Germany have helped to enhance the concept of organic products particularly in food products, by introducing new concepts of harvesting organic products known as 'ecological agriculture' and 'biodynamic agriculture'. During the 1960s and 1970s, the organic movement blossomed due to consumers having new knowledge and becoming more concerned on the effects of man-made products toward the global surroundings.

The International Federation of Organic Agricultural Movements (IFOAM) was formed in 1972 to consolidate all the efforts to promote the organic movement into a single unified, organization for organic food and products and help with the exchange of relevant information regarding the various practices across national levels. As of today, IFOAM has continued to be the place for the global organic movement. During the 1990s, organic products particularly in the food industry finally gained its recognition from various governments and were commercialized by being part of the mainstream food industries throughout the world. (*Kindly refer to Appendix C for the latest data on the global organic industry*).

In Malaysia, the main initiative behind organic industry started during the early 1990s under the stewardship of the then prime minister, Dr. Mahathir Mohammad. This initiative was not without challenges as the industry is relatively unknown where the challenges of developing sustainable organic practices, finding ways to raise citizen's awareness on organic products and finding the means to establish and develop a new market in Malaysia (UNESCAP, 2002). In recent years, the development of the organic industry in Malaysia is rapidly growing and more citizens are accepting of the organic concept.

The production of organic products in Malaysia will have to observe the various organic standards and be certified by the national certification agency. The Malaysian Standard, MS 1529: 2001, was established in 2001 to improve the certification process and standards of producing, processing and labelling of organically produced plant-based products (Samik & Mohd Nordin, 2014).

In addition, the Malaysian Investment Development Authority (MIDA) highlighted that it is crucial to comprehend the motivation of consumers in purchasing organic products. However, with most of the past studies on this topic were conducted in developed countries, some differences concerning the sociodemographic of the respondents, level of acceptance among consumers, and their consumption behaviour may occur; therefore the main goal of this paper is to investigate the factors affecting Generation Y consumers' purchase intention of organic products in Malaysia.

The group of individuals born between the year 1982 and 2000 and currently aged between 17 and 35 years old are commonly referred to as Generation Y. This group of consumers are said to be a fast emerging group within the society and constantly targeted by marketers due to their excessive purchasing power (Regine, 2011).

According to the Department of Statistics Malaysia (DOSM), Generation Y makes up of the majority population based on data gathered in 2016. Therefore, it can be said that Generation Y in Malaysia is an important group of consumers to be targeted in this research on purchase intention towards organic products. Besides that, the research will focus on Generation Y consumers within the Klang Valley as it was found from the same source that approximately a quarter of the country's population are located within the Klang Valley. (*Kindly refer to Appendix D*). The definition of organic products will be given in the sub-section below.

1.1.1 Organic Products Definition

Organic products are defined as products that are produced without the use of pesticides, synthetic fertilizers, sewage sludge and other harmful materials. In other words, organic products are produced without the use of any ingredients or materials that are considered to be harmful for human consumption.

However, in today's world, consumers tend to have different understanding of what is meant by 'organic' and struggle to fully understand the meaning of "organic". Consumers tend to mix up the words 'organic', 'green', 'ecological', 'environmental friendly' or 'natural'. Products labeled with the term green, ecological, environmental friendly or natural are not 100 percent to be considered an organic product (Joshi, 2015).

Besides that, there are cases where the products' producer wrongly labelled the products due to the misinterpretation of the word 'organic' (USA Today, 2014). They consider that their non-organic way of production is classified as organic.

Thus, the definition of organic produce and their methods of production need to be clearly stated to minimize the amount of confusion in the organic products market. Most of the organic products today come along with a seal from the relevant authorities to enable consumers to easily identify organic products over conventional products (Kosovska, 2013).

The problem statement of this particular research will be provided in the following section below.

1.2 Problem Statement

In the world today, there are significant increases in people purchasing organic products and at the same time have a positive attitude towards organic products. Consumers have the knowledge that organic products are able to provide various benefits to an individual's health and high amount of nutrition to the human body (Huber, 2011). However, when it comes to consumers in Malaysia, many consumers are fully aware of the benefits that organic products can bring to their lives but this is not fully reflected when it comes to purchasing and consuming organic products (Hossain & Lim, 2016).

Besides that, many researches have been carried out in recent times where in the studies, the various authors have managed to identify various variables which affects consumers' intention to consume organic products and their attitude toward organic products (Tareq et al, 2016). However, the results obtained from the researches are largely inconsistent and tend to variate from each research. This variation is caused various factors such as the country and the respondents that the particular research in on. There is also less amount of information available when it comes to young shoppers particularly Generation Y and their intention to purchase and consume organic products (Hassan, Loi & Kok, 2015).

Therefore, the main purpose of carrying out this research is to examine the primary factors that motivate Generation Y consumers in their purchasing of organic products in Malaysia. The research study on Generation Y consumers' purchase intention towards organic products in Malaysia is crucial for organic products manufacturers and marketers to understand the young shoppers.

The determinants that will be investigated in this paper are namely health concerns, environmental concerns, perceived value and availability of organic products as well as the consumer attitudes. These determinants were selected based on the relevance of the factors to the research in question which is the purchase intention of Generation Y consumers towards purchasing organic products. The determinants will be individually explained based on the prior studies carried out below.

For health concerns, it was found that in the study conducted by Lau (2009), health concerns is said to be the main determinant that impacts consumers' intention to purchase organic products. However in the particular study, the author did not state the reasons on why health concerns were the main determinant that impacts the purchase intention. The study also lacked the information towards Generation Y consumers and therefore this determinant is included in this research in order to understand how the health concerns impact Generation Y consumer's purchase intention.

Secondly, as found in Hassan, Loi & Kok, (2015) environmental concerns is another major factor that helps to influence consumers' intention to purchase organic products. It was found that another reason for more consumers adapting to a vegetarian way of life is due to their concern for the environment and considers organic farming and products brings low environmental impact. However, the study is based on the general public and less toward Generation Y consumers and therefore, the need to research on Generation Y consumers are carried out in this paper.

Thirdly, Ahmad, (2010) found that perceived value of organic products are able to influence consumers in their purchase intention towards organic products. It was found that organic product consumers are unlikely to consider price as a major factor as compared to consumers that have never purchased any organic products (Yiridoe, et al, 2005). However, this study only focuses on organic foods and not on organic products and its impact on Generation Y, therefore there is a need to investigate the influence of the value of organic products towards Generation Y consumers and their intention to purchase such products.

Last but not least, in Lian, Safari & Mansori (2016), the availability of organic products was found to have a significant impact towards consumers' purchase intention to purchase organic products. It was also found that that lack of availability was negatively linked to consumer purchase intention as Klang Valley consumers responded that organic products were not conveniently available to be purchase. The drawback of the study is that it only focuses on a limited area namely Klang Valley and may not fully represent the entire population in Malaysia. The problem statement for this particular research is concluded and the research's objectives and questions are identified and discussed in the section below.

1.3 Research Objectives

The objectives of this study are divided into two categories namely general objective and specific objectives.

1.3.1 General Objective

The primary objective in carrying out this particular study is to examine the factors that impact Generation Y consumers' purchase intention towards organic products in Malaysia.

1.3.2 Specific Objectives

- 1. To identify the various factors that determines Generation Y consumers' purchase intention towards organic products in Malaysia.
- 2. To determine the relationship between health concerns, environmental concerns, perceived value, availability of organic products and consumers' attitudes in purchasing organic products in Malaysia.
- 3. To determine the mediation effect of consumer attitudes between the relationship of availability of organic product and Generation Y consumers' purchase intention towards organic products in Malaysia.

1.4 Research Questions

Many prior researches have been carried out in recent times to investigate the factors that influence consumers' acceptance and intention to purchase and consume organic products in Malaysia. However from these researches, there are still questions that remains in which this study wishes to provide a reasonable answer the following questions;

- 1. What are the factors that affect Generation Y consumers' purchase intention towards organic products in Malaysia?
- 2. What are the relationship of health concerns, environmental concerns, perceived value and availability of organic product with consumers' attitudes in purchasing organic products in Malaysia?
- 3. Does consumer attitudes serves as a mediator between availability of organic products and Generation Y consumers' purchase intention towards organic products in Malaysia?

1.5 Hypotheses Development

H1: Health concerns have a positive relationship with generation Y consumers' attitudes.

H2: Environmental concerns have a positive relationship with generation Y consumers' attitudes.

H3: The perceived value of organic products has a positive relationship with generation Y consumers' attitudes.

H4: The availability of organic products has a positive relationship with generation Y consumers' attitudes.

H5: The attitudes of Generation Y consumers have a positive relationship with their intention to purchase organic products.

H6: The attitudes of Generation Y consumers will mediate the relationship between availability with the Generation Y consumers' intention to purchase organic products.

The hypotheses for this particular paper are identified and the significance of this research will be discussed in the following section.

1.6 Significance of the Study

In the modern world today many consumers especially Generation Y has an interest or preference towards organic products however this is not necessarily translated into purchase and consumption of organic products. What is the main reason behind this situation? The main objective of carrying out this research is to collect sufficient information about Generation Y consumers' purchase intention

towards organic products. This study will investigate the various factors that influence Generation Y consumers' attitudes that will lead to their intention to purchase organic products.

The results of this study are able to help organic practitioners and marketers in terms of their awareness towards the factors that influence Generation Y consumers towards purchasing organic products. By having the adequate awareness of the various factors, marketers and practitioners are able to come out with the optimal marketing strategy that would help to improve the organic products purchase and consumption within Generation Y consumers in Malaysia.

Secondly, the understanding of the relationship between the various determinants that influence Generation Y consumer attitudes and the purchasing intention of Generation Y consumers is important to organic products practitioners and marketers. This study is able to provide firms with better knowledge of the actual needs and wants of Generation Y consumers. Subsequently, it would help the practitioners and marketers to improve their sales and profit by developing better marketing strategies to attract this group of consumers.

Thirdly, the results from this study will be useful for organic product producers as they are able to gain an insight towards the popularity of organic products within Generation Y consumers. This will help them to focus their efforts on the popular factors in ways to improve the consumption and purchasing among Generation Y consumers and in return gain sales and profit.

Lastly, this study is important in providing academicians with the understanding of the various factors that influences purchase of organic products among Generation Y consumers. This is important as the amount of purchase and consumption of organic products in Malaysia is still considerably low compared to other countries. Therefore, academicians are able to better understand the factors that improve or reduce purchase and come out with additional studies on how to improve the said factors.

This marks the end of the significance of this particular study. The scope of research will be discussed in the following section followed by the chapters' layout.

1.7 Chapter Layout

Chapter 1: Overview of Study

In this chapter, the introduction to the study is provided. Underneath this chapter, the research problem and scope was being clarified. Secondly, the research question and research objective was being devised. Besides that, the chapter also contains a section that detailed on the significance and the importance of the study was being conducted. Lastly, a brief conclusion is provided to bring this chapter to a close.

Chapter 2: Review of Literature

Underneath this chapter, established and highly-credible journals are being studied thoroughly and reviewed. This will be followed by the presentation of theoretical frameworks and models which are applicable to the research topic. Eventually, a conceptual framework is developed to explain the relationship between the independent variables and dependent variable. The development of the hypotheses will also take place in this chapter followed by a brief explanation. This chapter is concluded with a chapter conclusion.

Chapter 3: Methodology of Study

Underneath this chapter, methods for conducting the research were being explained. Furthermore, it detailed about ways of data collection, sample design and the ways used to analyse data being collected. The data gathering process was

being highlighted in this chapter as well. Lastly, this chapter will end with a conclusion.

Chapter 4: Analysis of Data

The analysis and findings will be carried out and explained in this chapter. The analysis will be presented using graphical methods. The Statistical Package of Social Science (SPSS) software is used in this chapter to analyse the data collected and help to present the analysis results in a clear manner.

Chapter 5: Discussions, Implications and Conclusion

Discussion of the results from the previous chapter will be carried out in this chapter. The results will be interpreted and thus knowing if hypotheses are supported by the data collected. Besides that, the implications of this research, its limitations and recommendations for future studies are also incorporated within this chapter. An overall conclusion will be included in this chapter to bring the entire research to a close.

1.8 Conclusion

In conclusion, the organic products industry in Malaysia is considered to be a growing industry within the country. As consumers continue to gain additional knowledge on organic products, the demand of organic products will continue to increase. The main purpose of this particular study is to examine the main factors that contribute to Generation Y consumers' intention toward purchasing organic products.

As mentioned previously, this chapter serves as a guide to readers for the entire research that begin with the research background followed by the problem statement as well as the research objective and question and concluded with the layout of the entire research paper. This chapter will also serve as a foundation to the subsequent chapter which is the literature review where relevant literatures will be reviewed to act as a support to the variables of this paper.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter will begin with the literature study for the variables being examined based on the relevant journals and articles of the particular variable. This is followed by the review and explanation of the relevant theoretical model in which this model serves as a base to the development of the conceptual framework of this particular study.

The next subsection will consist of the introduction and explanation of the conceptual framework for this study followed by the development of the hypotheses based on the literature reviews. This chapter will conclude with a chapter conclusion.

2.1 Review of the Literature

2.1.1 Purchase Intention towards Organic Products

Consumers' purchase intention is a found to be a complex and long process where the purchase intentions are normally related to the behaviours, perceptions and attitudes of a particular individual. Purchase intention is the main motivation for consumers to search and evaluate a particular product. In a study by Ghosh (1990), it was found that consumers' purchase intention can be used to predict buying process effectively. An individual's purchase intention can change easily due to a number of reasons primarily caused by internal and external forces. Researchers have come out with a set of six stages that each individual goes through prior to buying a particular product; the stages are namely awareness, knowledge, interests, preferences, persuasion and actual purchase (Kotler & Armstrong, 2010).

Purchase intention is defined as "an individual's sensible intention to make an effort to purchase any products" (Spears and Singh, 2004). Hawkins & Mothersbaugh (2010) defined purchase intention as the preliminary factors that motivates and drive consumers' to make purchases of products and services. In other words, purchase intention can be said as an individual's behaviour that makes he or she want to make a purchase of a particular product or services.

The Malaysian organic products industry is at a growing stage, in which its demand has grown steadily. This is mainly because of the better understanding of the benefits in consuming organic products among Malaysians. In Suprapto & Wijaya (2012), consumers regard the consumption of organic products as beneficial, and this attitude has helped to influence consumers' purchase intention towards organic products. Wee et al (2014), found that other factors such as food safety, health and environmental factors have significantly influenced their intentions to purchase organic products. These factors have supported the study of

Rezai (2013) where it was found that the said factors influence consumers' intention to buy organic products.

2.1.2 Health Concerns

In most global community today, the term "health is wealth" has been planted in the mind-set of consumers where consumers are more concerned with health issues compared to the past. Many consumers today are consumers that have proper awareness on the benefits of good health and are concerned about their well-being and are determined to improve or maintain their health to prevent any illnesses. The determination is normally done via engaging in healthy behaviours and is self-conscious about the benefits of good health (Newsom et al., 2005; Kraft & Goodell, 1993).

This has led to the creation of a global market for health products due to the increasing demand. Organic products are also considered to be beneficial to the human health as organic products use ingredients that are not harmful to the human body; for instance the reduced presence of artificial ingredients in organic product have helped to prove this claim. This is supported in a study by Lairon and Huber (2014), it was found that most organic products are absent of harmful ingredients. Ahmad (2010) indicates consumers tend to place a high rating on health concerns and product security, which can be easily obtained in organic products.

Previous studies have also supported that health issues are one of the key intentions for consumers of all ages when purchasing and consuming organic product (Schifferstein et al, 1998). In the same research, it is also stated that health concerns are linked to a particular person's degree of readiness to carry out healthy tasks and start to care how their purchases and consumption affects their health. Consumers that vary about their health have been proven to look towards organic products when conventional products are unable to provide the health benefits that the consumers are looking for. Consumers also tend to move towards

organic products when they are looking for ways to improve their health (Tregear et al.1994).

According to a research carried out by Lea and Worsley on Australian consumers, it was found that majority of Australian consumers trust that organic food products have significantly more vitamins and minerals where it provides numerous health benefits, particularly more towards women consumers. Lairon and Huber (2014) further supported the view that organic food products contain minerals and antioxidants that are beneficial to the human body. In addition, the purchase of organic food products is also influenced by consumers with families where they are inclined to purchase and consume organic food products as it is widely considered safer and healthier compared to processed food products.

In their research, Tregear et al. (1994) and Davies et al. (1995) determined that most parents feed their children with organic food products because of the nutrients that are available in the food products as well as the reduced presence of pesticides. It was also found that occasional consumers are more concerned on the health benefits that organic products provide compared to frequent consumers (Pino, Peluso, & Guido, 2012; Yin et al., 2010).

Hence, based on the previous studies carried out it can be said that health concerns is a crucial element that influences consumers' intention to purchase organic goods.

2.1.3 Environmental Concerns

For a sustainable future, environmental concerns and understanding are important factors in protecting the environment (Crosby et al, 1981). In the world today, it is found that more people are now vegetarians or vegans than ever before. Besides the health benefits involved, another factor in the increase of consumers adopting a vegetarian or vegan lifestyle is the concern for the global environment. According to a study carried out by Dunlap and Van Liere in 1978, environmental

concerns are found to be a global concern with indirect consequences on the behavioural intentions of a particular person.

This is further supported in a paper by Amyx et al (1994) where it have said that the level of environmental concerns among consumers are linked to the individual's intention in purchasing and consuming organic products. Environment concerns are able to affect the consumers' intention to purchase organic products directly; however this concern is considered not to be a major concern that impacts the purchase intention in various studies (Schifferstein & Ophuis, 1998). Consumer environmentalism is defined as the level of environmental concern and awareness of a particular consumer to make purchase decisions that have positive impact towards the environment.

Organic products are said to be produced using natural methods help to reduce the amount of contamination towards the environment. For instance, in the production of organic food products, chemical pesticides and harmful fertilizers are not used and will not harm the air and the surrounding areas. Recent studies show that there is an increase in the purchasing and consumption of organic products due to a change in consumers views on environmental factors (Gracia & de Magistris, 2013), where it was found that consumers perceived organic products as less harmful to the environment (Gomiero et al., 2011).

The increase in the amount of purchase of organic products proved that consumers today understand that organic products are produced using natural ways will not damage the environment. Consumers that have a high awareness towards the environment know that by buying and consuming organic products, they are able to minimize the amount of natural pollutions as well as reducing the amount chemical substance used in agriculture activities which harms the soil and surrounding areas (Saleki and Seyedsaleki, 2012).

Based on the previous studies above, it is able to conclude that environmental concern is another important element that influences consumers' intention to purchase organic products.

2.1.4 Perceived Value

Perceived value is defined as an individual's appraisal of the value or utility of a particular product based on the individual's opinion on what they provide to secure the product and obtain as a return (Naylor & Frank, 2000). To summarize, consumers' perceived value is the trade-off between the perceived benefit received and cost of obtaining the benefit (Lin & Wang, 2006).

Consumers' perceived value towards organic products is found to be an important factor that influences purchase, as found in previous researches where there is positive recognition towards organic products (Ahmad, 2010). Due to the positive perceived value, organic consumers are willing to fork out more to obtain organic products, as they consider that organic products are healthier, safer and environmentally friendly. This claim is supported by Hutchins and Greenhalgh (1997) where it was found that majority of their respondents are happy to pay a premium for organic products.

This assumption is supported in a study carried out by Tshuma et al. (2010) where the price of organic products was found to be an aspect that guides consumers' intentions to purchase organic products. Price of organic products remains higher compared to conventional products in many markets due the increasing demand for these products due to its high perceived value (USDA, 2009). In a study carried out by Kim, Suwunnamek & Toyoda (2008), on the Japanese organic market, Japanese consumers found to be willing to fork out an additional ten percent for organic products compared to conventional products; however Japanese consumers tend to prefer domestic organic products over imported organic products as they are able to identify the source of the product much easier.

However, higher prices of organic products are mentioned to be a deterring factor for occasional organic consumers as these consumers will tend to think that organic products are not value for money as compared to regular consumers (Zanoli & Naspetti, 2002). Moreover, a recent study by Volckner & Hofmann (2007), the higher price in regular organic consumers' perspective is an indicator

towards the quality of organic products. Consumers are inclined to pay a premium for organic products due to its perceived higher quality. However, the acceptance of the price premium differentiates among various types of consumers (Batte et al, 2007). This factor will also contribute to the consumers overall evaluation of the organic product and eventually their purchase intention.

Based on the previous studies above, it is able to conclude that the perceived value of organic products is a significant variable that influences consumers' intention to purchase organic goods.

2.1.5 Availability

In recent years many supermarkets have included organic products in their offering to cater to the growing demand for organic products in the market. This is to make organic products available to their customers and gain profits from this ever-growing market. Consumers can today purchase organic products via organic stores as well through conventional hypermarkets which improves the availability of the organic products. A study by Dettmann & Dimitri (2007) shows that organic products are now more accessible to consumers due to better understanding and awareness of the organic concept by marketers where better marketing strategies have been incorporated to promote organic products through conventional hypermarkets as well as large retail stores.

As availability acts as one of the main elements that encourage consumers' purchase intention towards organic products (Davies et al., 1995), the group would like to explore on this factor and its linkage to consumers' intention towards purchasing organic products in a more detailed manner. There is evidence to show that consumers find it difficult in finding products that helps to preserve the environment as there is minimal information available (Brown, 2003). Previous research have also identified that minimal organic products available in a particular conventional store is an obstacle for consumers to purchase and consume organic products (Beardworth et al, 2002).

Previous researches have also supported that the lack of organic products availability will serve as a strong barrier in consumers' intention to purchase these products (Lea and Worsley, 2005; McEachern and McClean, 2002; Beardsworth et al., 2002; Zanoli and Naspetti, 2002). This proves that availability plays an important role in determining the intention of organic product purchases (Paul and Rana, 2012).

Due to the raise in demand for organic products, many conventional hypermarkets have added organic products into their inventory, however the range of products available are limited which leads to a limited choice for consumers to choose from (Dettmann and Dimitri, 2007). The shortage of a complete choice of organic product in the stores limits the use of organic products by consumers (Chakrabarti, 2010) thus, the wide availability of organic products in stores is said to be an important motivator toward consumers' intention to purchase organic products.

In addition, Dimitri and Dettmann (2007) indicated that consumers are more likely to buy organic products if the products are sold in the places they often carry out their grocery shopping. Therefore, the availability of organic product in locations located nearby housing areas serves as an additional motivation to consumers' intention in the purchasing of organic products. Chaiyasoonthorn and Suksa-Ngiam (2011) stated that the distance of the location (store) to consumers' homes and workplace also determines consumers' intention to purchase these products as it is easily available at a location nearby.

Based on the previous studies above, it is able to conclude that the availability of organic products is an important variable that determines consumers' purchase intention towards organic products.

2.1.6 Consumer Attitudes

Attitude can be defined as the psychological way of evaluating a specific situation (Eagly and Chaiken, 2007). Attitude can be said as an established style of thinking when an individual faces a particular situation. Attitudes developed via prior experiences can be altered when newer experiences takes place (Chen, 2007). In prior studies, it was found that consumers tend to have specific attitudes when it comes to selected products which are indicated by the type of products they tend to use and amount of times a person shops for the product (Solomon et al., 2010).

Attitude towards a said behaviour is referred to as the level of evaluation that a person have for behaviour either positive or negative. The more positive the attitude towards a particular behaviour, the greater is the person's motivation to behave in such a way (Tarkiainen and Sundqvist, 2005).

It was found that consumer preferences in purchasing any products are commonly linked with consumer attitudes and their desirability to perform certain behaviours (Chen, 2007). Attitudes towards particular behaviours are linked with the expectations that portraying a particular behaviour will lead to the expected consequences (Tarkiainen and Sundqvist, 2005).

The "Theory of Planned Behaviour (TPB) has been used in prior studies to measure consumer attitudes and it is widely used to foresee and describe human behaviour particularly in various researches on food and beverages (Dean et al, 2008). The model has allowed researchers to explain the consumer behaviour in regards to food choices and the particularly towards organic food products (Tarkiainen and Sundqvist, 2005; Aertsens et al, 2009).

Prior studies have found that health concerns are strongly linked with organic products purchase and it was found to be the greatest purchase motivation towards purchasing organic products. Organic food products are also considered to be superior to conventional food products and are less harmful to the environment (Aertsens et al, 2009). The perception that consumers trust that organic products

are less harmful to the environment is linked to that of universalism and was found to be a major factor when consumers purchase organic foods (Thøgersen, 2007). Aertsens (2009) have indicated that consumers place great importance towards the environment and it is shown in their attitude towards organic products.

With the support of various studies above, it is able to conclude that consumer attitudes are able to serve as a mediator between the various independent variables discussed previously and the consumers' purchase intention to purchase and consume organic products.

2.2 Relevant Theoretical Models Review

In 1991, Icek Ajzen first introduced the Theory of Planned Behaviour (TPB) model in his research titled "From intentions to actions: A theory of planned behaviour". The model was developed based on Martin Fishbein and Ajzen's Theory of Reasoned Action (TRA) introduced in 1980. The TRA model has been used to foresee a person's motivation to undertake in specific behaviours during a particular moment.

The Theory of Planned Behaviour (TPB) model was chosen as the theoretical model for this paper as it has been used in many previous papers to help decode the behaviours and intentions of topics such as usage of health services, intention towards smoking and drinking. Since the main idea of this research is to examine Generation Y consumers' intention to purchase organic products in Malaysia, the TPB model is the perfect model to help to serve as a guide in predicting the purchase intention among Generation Y consumers towards organic products in a Malaysian context.

Behavioural attitude is one of the key pieces of the TPB model. Behavioural attitude refer to a person's response in a particular situation towards a given target. There are another two key components namely, subjective norms and perceived behavioural control. All three key components will be discussed in depth below.

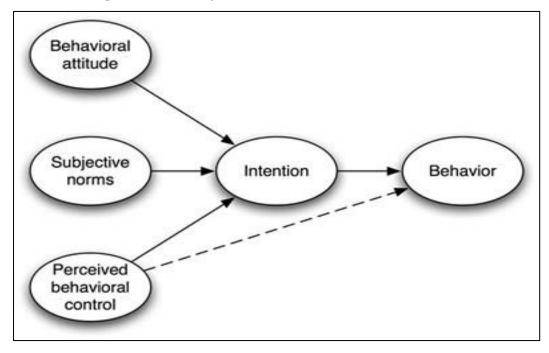


Figure 2.1: Theory of Planned Behaviour (TPB) Model

Source: Ajzen (1991)

2.2.1 Behavioural Attitudes

Attitude is defined as the extent to which an individual has positive or negative views towards the behaviour of a particular interest. Attitudes will require a consideration of the outcomes after which the specific behaviours are conducted by a party. Secondly, behavioural intention refers to the motivating factors that influence a person's attitude. It can also be said that a specific attitude tends to take place if the motivation to show the said attitude is greater in a particular situation. Therefore, it can be summarized that attitude is determined by the expected result from performing the said attitude and the desire for the said attitude to take place.

In the context of organic products in a previous study carried out, it is said that a large number of consumers tend to possess favourable attitude towards organic goods if consumers have the knowledge and trust that organic products will provide better health benefits compared to ordinary products in the market. By having a favourable attitude and awareness, the chance for these consumers to purchase and consume organic products are much higher than the consumers that have unfavourable views on organic products.

2.2.2 Subjective Norms

Subjective norms are commonly referred as the view of important persons in a person's life, and their desire to behave or not to behave in a particular way (Mhlophe, 2016). "Perceived social pressure" in which a person goes through in executing a particular behaviour is commonly referred as subjective norms (Ajzen, 1991). These norms are based on a person's preferences and their willingness to behave similarly with others. The subjective norm theory states that important persons and groups will approve or disapprove any behaviour (Ajzen, 1991).

High acceptance from important groups such as family and friends will improve an individual's intent to purchase goods. For example in the context of organic products, a particular individual will be influenced to purchase or consume organic products if their family members and friends trust that organic products are more beneficial than conventional products. This individual will be more likely to purchase and consume organic products as he or she has been given a positive influence to behave in such a manner.

2.2.3 Perceived Behavioural Control

The third key component of the TPB model is known as Perceived Behavioural Control. It is defined as an individual's view of the level of difficulty in carrying out the specific behaviour of interest. The perceived behavioural control differ between individuals and situations. As a result, an individual are able to constantly

change their perception of behavioural control depending on the various factors such as the location and the party involved in a particular situation.

Perceived behavioural control has implications on an individual's behaviour through the use of intentions. In the context of organic products, it plays a role in an individual's view of their choice over what to purchase or consume. Behavioural control is able to influence a consumer's intent to purchase and consume organic products. External forces such as the location of the store and labelling of the organic products play a role in influencing the consumers' view of the benefits and drawbacks when buying and consuming organic products.

For example, if a consumer is able to obtain or identify organic products without much difficulty, it is said that this will help to provide a persuasive influence towards the consumer's intention to acquire organic products and the consumer will then most likely to purchase the organic product as a behaviour.

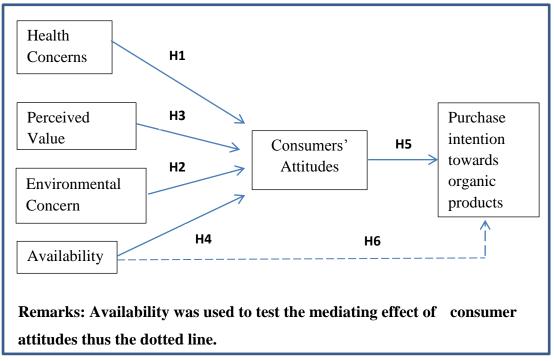
2.2.4 Limitations of the Theory of Planned Behaviour

The Theory of Planned Behaviour is not without its fair share of limitations. Firstly, the model assumes that the particular individual in question has fully gathered the resources needed and opportunities to be able to perform the desired behaviour without considering the intention for such behaviour. The model also lacks some critical factors that have important roles in shaping an individual's intention to behave in such a way such as fear, anxiety and prior experiences.

Another drawback of this model is the lack of consideration towards environmental and economic factors when a particular person is acting in such behaviour as well as the nonexistence of a time frame between the "intentions" and the actual portray of the "behaviour". In this model, the behaviour that an individual choose to behave in a particular setting is said to be a linear-decision making process in which the said behaviour will not be influence by future events and the individual will still behaviour is a similar manner in the future.

2.3 Proposed Conceptual Framework

Figure 2.2: Factors affecting Generation Y consumers' purchase intention towards organic products in Malaysia



Source: Developed for Research

With the support from previous researches, this research is carried out to examine the various variables that impact Generation Y consumers' attitudes and how these attitudes affect the purchase intention of these consumers towards organic products in Malaysia. The conceptual framework above (Figure 2.2) illustrates the influence of the various factors on consumers' attitudes as well as the connection between consumers' attitude and purchase intention towards organic products.

This particular framework is developed based various studies. In the study of Lau (2009), it was found that health concerns and environmental concerns play an important role in determining consumers' intention to purchase organic products. The factors were further strengthen in a study by Azizan and Suki (2014) where health conscientiousness and environmental attitude are found to main factors that motivate consumers' intentions to purchase organic products. Perceived Value

was adopted from Kulikovski & Agolli, (2010) in which perceived value was an important factor in determining consumers' purchase intention in Greece

Availability was found to be an important factor in the research of Mhlophe (2016) in determining the consumers' purchase intention in purchasing organic products. The link between consumers' attitudes and purchase intention in this particular framework has been adopted based on the study carried out by Yang, Al-Shaaban and Nguyen (2014). In their study, it was found that both personal and subjective norms such as health concerns will lead to a positive influence on consumers' attitudes towards their purchase intention of organic products.

The main goal of this particular study is to investigate the relationship among the six elements where the purchase intention of generation Y consumers towards organic products in Malaysia is the dependent variable. Four independent variables have been added in the framework namely health concerns, environmental concerns, perceived value and availability while the attitudes of Generation Y consumers will serve as the mediating variable between the independent variables and dependent variable.

The four independent variables stated above can be separated into two different components within the TPB namely subjective norms and perceived behavioural control. Health concerns, environmental concerns and perceived value are part of the subjective norm component as an individual will more likely to be influenced by their family and friends in these three variables. Meanwhile, availability will be part of the perceived behavioural control component as individuals are able to constantly change their perception of behavioural control depending location and availability.

The proposed framework will be supported by six hypotheses to examine the relationship among the various variables. These hypotheses are explained in detailed in the next sub-section.

2.4 Development of Hypotheses

2.4.1 The relationship between Health Concerns and Generation Y consumer attitudes

Health concerns is said to have a strong influence over consumers' attitudes towards purchasing organic products. Magnusson, Arvola, Hursti, Åberg and Sjöd én (2001), have found that health concerns was a stronger influential factor toward consumers to purchase and consume organic products compared with environmental concerns. This is further supported by a previous study carried out by Chen (2009), argued that health concerns is the main predictor of consumer attitude towards purchasing organic products. In a research carried out on the people of Egypt, Mohamed et al (2012) stated that health concerns is the main motivating factor for Egyptian consumers in their attitudes to purchase organic products particularly organic foods. Hence, the following hypothesis is proposed.

H1: Health concerns have a positive relationship with generation Y consumers' attitudes.

2.4.2 The relationship between Environmental Concerns and Generation Y consumer attitudes

According to the study carried out by Honkanen, Verplanken and Olsen (2006) environmental concerns are found to significantly influence consumers' attitudes, which will lead to an increase in purchasing and consumption of organic products. This factor is supported by Ahmad, (2010); Gracia & de Magistris, (2013); Yin, Wu, Du, & Chen, (2010), where it was found that organic consumers have positive attitude and intention to buy organic products due to their concern on environmental factors and in Gomiero et al, (2011) stated that consumers are

motivated to purchase these products as they perceived that organic products have low environmental impact. Thus, the following hypothesis is proposed

H2: Environmental concerns have a positive relationship with generation Y consumers' attitudes.

2.4.3 The relationship between Perceived Value and Generation Y consumer attitudes

It was found that perceived value is an important factor in affecting the amount of purchasing and consumption of organic products as it is considered that the higher the price of a particular good, the better the perceived value of the product and more consumers are attracted to the product. Zakowska-Biemans (2011) found that an individual's sensory factors are the most important factor in affecting organic product purchase intention; this is closely followed by price consideration of a particular product. Another saying is that, if consumers have a poor perception towards organic products, they are unlikely to purchase or even consume organic products. This illustrates the importance of perceived value towards organic products as a factor that contributes highly towards the consumers' purchase intention of organic products. As suggested in Hjelmar (2011), consumers have to be constantly reminded that organic products provide a high value to consumers in order for organic manufacturers to maintain a growing purchase and consumption rate among knowledgeable customers. Therefore the following hypothesis is identified.

H3: The perceived value of organic products has a positive relationship with generation Y consumers' attitudes.

2.4.4 The relationship between Availability and Generation Y consumer attitudes

It was found that availability of organic products plays an important role in influencing consumers' attitudes where studies have stated that minimal availability of organic products in the market is found to be one of the main drawbacks towards consumers' attitude to purchase organic products (Beardworth et al., 2002; Davies et al., 1995). Therefore, availability is considered to be an important factor to increase organic food purchasing intentions (Paul and Rana, 2012). This is further supported in Shafie and Rennie (2012) where it was found that the availability of food can push and pull consumers' intention to purchase by motivation. Blackwell et al. (2006) have discovered that product availability is one of the main determinants that affect consumers' attitudes to acquire organic goods. Thus, the following hypothesis is proposed

H4: The availability of organic products has a positive relationship with generation Y consumers' attitudes.

2.4.5 The relationship between Consumer Attitudes and Intention to purchase organic products

Consumer attitudes is said to have a strong influence when it comes to their intentions in purchasing organic products. Thogersen (2009) stated that a person's attitude towards organic products is mostly based on their beliefs towards the benefits of organic products and this normally will translate into purchase intentions. Haryanto (2014) in his studies on environmental-friendly products have found that the positive attitude of consumers towards the products has contributed to their intention to purchase the said products. Other studies done by Hossain and Lim (2016) have supported this statement where in their study; they indicated that consumers that have a good opinion towards organic food products

will tend to have the intent to purchase the said products. Hence, the following hypothesis is proposed.

H5: The attitudes of Generation Y consumers have a positive relationship with their intention to purchase organic products.

2.4.6 Testing the mediation effect of Consumer Attitudes between Availability, and Intention to purchase organic products

Past studies have found that consumer attitude has a positive influence towards their intention to acquire organic food products (Chen, 2007). Positive attitude towards purchasing organic products can be linked to consumers trusting that organic products are beneficial to a person's health and environmentally friendly; however Yin et al, (2010) indicated that the reasons for not purchasing organic products is its premium prices and lack of availability.

Attitude has been considered as a critical determinant in the intention to purchase organic products such as fruits and vegetables (Thøgersen, 2007). Paul et al. (2016) found that consumer attitude is able to serve as the mediator between environmental concerns and purchase intention. Nam, Dong & Lee (2017) also found that consumers' attitude is able to mediate the relationship between consumer's perception and purchase intention. In this study, the researchers would like to test the effect of attitudes as a mediator between availability and purchase intention therefore the following hypothesis is proposed.

H6: The attitudes of Generation Y consumers will mediate the relationship between availability with the consumers' intention to purchase organic products.

2.5 Conclusion

Based on evidence from past studies reviewed above, researchers proposed that there is a positive relationship between main factors in question namely, health concerns, environmental concerns, perceived value and availability of organic products as well as consumer attitudes towards Generation Y consumers' purchase intention of organic products. Based on the literatures reviewed, the conceptual framework for this research and six hypotheses were able to be developed to serve as a guide for later stages of this paper.

This chapter will be followed by the research methodology chapter where the various methods to collect and analyse the necessary data for this study will be explained in a more detailed manner.

CHAPTER 3: METHODOLOGY OF STUDY

3.0 Introduction

The main function of this particular chapter is to explain the various research methods and techniques used in the research on Generation Y consumers' purchase intention towards organic products in Malaysia. This chapter will describe and explain how the research is conducted. The chapter will begin with the research design. The methods used to collect the relevant data for this study is then explained and subsequently followed by the sampling design and the research instrument used. The explanation of the constructs used will take place next followed by the data processing process and methods used for data analysis. A conclusion will be provided to mark close the chapter.

The research design of this research paper will be explained in the following subsection below.

3.1 Research Design

Research design is defined as the main plan that determines the research techniques, data collection methods and analytical methods used in a particular research (Zikmund 2003). Creswell (1997) stated that research design is a blueprint to collect the data and information needed and carry out tests to obtain reliable and accurate results. Besides that, research design is said to be a plan that indicates when, where and how the information needed is to be obtained and analysed (Parahoo, 1997).

There are several types of research namely, exploratory study, descriptive study, and causal study. Exploratory studies are mainly used to explore the attributes of an issue. Meanwhile, descriptive study is commonly used to depict the attributes of a particular occurrence or population and causal study is commonly used to examine the causal relationship between the variables in a study (Zikmund 2003).

The nature of this research is quantitative research as the data needed will be collected via surveys and used to analyse the determinant that impacts Generation Y consumers' purchase intention towards organic products in Malaysia. Besides that, the research design used in this paper is causal research as the group would like to identify the relationships of the various independent variables being examined namely, health concerns, environmental concerns, perceived value and availability as well as the mediating variable which is the consumer attitudes towards Generation Y consumers' intention to purchase organic products in Malaysia.

3.2 Data Collection Method

Primary data and secondary data are the two main methods for collecting data that can be used in any research. Original first-hand data or information collected by the researchers are known as primary data while data gathered from existing sources such as journals, articles, books and etc. are known as secondary data (Sekaran and Bougie, 2010). Both primary and secondary data will be included in this research in which the primary data will be obtained via distribution of questionnaires. The main objective of the questionnaire survey is to find out the elements that influence Generation Y consumers' purchase intention towards organic products in Malaysia.

The data collection method used plays a crucial role in any research as it is needed to get the most reliable information available. Questionnaire survey approach is being used as the method to collect primary data for this study. Three hundred (300) copies of the survey questionnaire were handed out to Generation Y organic product consumers and non-consumers within the Klang Valley due to the convenience in obtaining the necessary data needed for this paper. The reason on why convenience sampling is employed in this research is to quickly and efficiently obtain the required data from members of the Generation Y population that is easily available in the said areas above (Sekaran and Bougie, 2010).

When carrying out the survey, face-to-face survey method is used as this method is able to explain and reduce the doubts of respondents first hand and making sure that the respondents fully understand the questions asked. The sampling design of this research paper will be explained in the following sub-section below.

3.3 Sampling Design

Data sampling is defined as a small fraction that is selected from the entire population to be used as a predictor of the population and coming out with outcomes that is representative (Sekaran and Bougie, 2010). It is important to select a good sample that represents the population in order to obtain a good result based on the sample analysed. The 300 target respondents will be selected at a random basis from various parts within the Klang Valley.

300 respondents that were randomly picked for the survey are Generation Y consumers and non-consumers of organic products. According to Brosdahl & Carpenter (2011), Generation Y are the group of consumers born between 1982 and 2000 and are currently aged between 17 and 35 years old. Some of the characteristic of Generation Y consumers includes high discretionary income, seeks quality and technology, willing to pay more and loyal towards brands (Sullivan and Heitmeyer, 2008).

Convenience sampling is used for this study. Convenience sampling is a type of non-probability sampling and the main method for collecting data from respondents that are conveniently available in a particular area (Zikmund 2003).

This method is popular among researchers as it is able to generate large number of responses to the questionnaires in a short period of time.

The research instrument used in this research paper will be identified and explained in the following sub-section below.

3.4 Research Instrument

Self-administered questionnaire will be used as the main data instrument in this particular research. The questionnaires will be presented in form of paper questionnaire via the face to face survey method. Advantages of using the face to face survey is that it allows researchers to easily obtain the required data and information at a much faster rate and more economical compared to other data collecting methods and at the same time able to clear any doubts in the minds of the respondents.

3.4.1 Questionnaire Design

Questionnaire survey is the most suitable manner to obtain statistical data to generate results and examine the various factors that affect generation Y consumers' purchase intention towards organic products in Malaysia. Questionnaire is the most popular method used by researchers to gather feedback from respondents compared to other methods. Questionnaire survey also provides convenience to the researches as they are able to carry out the survey in many locations and it is less costly to do so compare to other data collection methods (Sekaran and Bougie, 2010).

To minimize the target respondents' difficulty in understanding the questions, simple English is used during the creation of the questionnaire. Besides that,

categorical answers have been added to help respondents to make better decisions when answering the questions.

3.4.2 Pilot Test

Prior to the release of the questionnaire to target respondents, a pilot test was carried out. 35 sets of questionnaires were given out to the pilot respondents. By carrying out the pilot test, it enables the researchers to identify any shortcomings with the questionnaire and obtain feedback regarding the questionnaire. Only minor grammatical errors were found are corrected in the final questionnaire distributed.

Table 3.1: Pilot Test Reliability Results

| Variables | Cronbach's Alpha value |
|------------------------|------------------------|
| Health Concerns | 0.763 |
| Environmental Concerns | 0.692 |
| Perceived Value | 0.820 |
| Availability | 0.645 |
| Attitudes | 0.753 |
| Purchase Intentions | 0.842 |

Source: Developed for research

The construct measurement and the origin of the constructs used in this research study will be identified and explained in the following section below.

3.5 Construct Measurement

3.5.1 Scale measurement

Nominal scale is used to characterise the respondents into particular groups. Gender and marital status are examples of nominal scale used in the questionnaire for this research. Ordinal scale is also used where this scale reflects the order or ranking among the categories of a certain variable. Range of ages is the example of the ordinal scale in the questionnaire.

Besides that, interval scale is also used where it helps to differentiate the various choices in a certain variable. A five-point Likert Scale will be used to include the concept of equality where strongly disagree is ranked 1, 2 for disagree, 3 for neither agree nor disagree, 4 for agree and 5 for strongly agree. The five-point Likert Scale is used due to its better reliability compared to the four-point Likert Scale (Tsang, 2012).

3.5.2 Origin of Constructs

Table 3.2 below shows the origin of the six constructs examined in this research.

Table 3.2: Origin of Constructs

| Construct | Adapted Items | Origin of Items |
|-----------------|--|-----------------|
| Health Concerns | 1. I am concerned about my health all the time. | Lau, (2009) |
| | 2. I always avoid eating foods with additives and preservatives. | |
| | 3. I always eat fresh and healthy foods, e.g. fruits, vegetables, etc. | |
| | 4. I always pay attention to a balanced diet. | |
| | 5. I usually read the ingredients on product labels. | |
| | 6. I worry that there are harmful chemicals in my food. | |
| | 7. I am concerned about my drinking water | |
| | 8. I read more health-related articles than I did 3 years ago. | |
| | 9. I am interested in information about my health. | |
| | 10. I always avoid eating snacks. | |

| Environmental Concerns | 1. I prefer to buy environmental friendly labelled products. | Lau, (2009) |
|---------------------------|--|-----------------------------|
| | 2. I always avoid using disposable tableware. | |
| | 3. I bring my shopping bag when I go shopping. | |
| | 4. I avoid purchasing products in environmental unfriendly packages. | |
| | 5. I always save energy. | |
| | 6. I always donate things I do not need (like electric appliances, computers, toys, clothes) to the charity. | |
| | 7. I use double sides of a paper before throwing it away or taking it recycled. | |
| | 8. I always recycle plastic bottles and newspaper etc. | |
| Perceived Value | 1. Organic food is valuable to me. | Kulikovski & Agolli, (2010) |
| | 2. In general, I hold a positive opinion about organic food. | |
| | 3. Organic food products are an important part of my life. | |

| Availability | 1. Organic product is sufficiently available at the store where I shop. | Mhlophe, (2016) |
|--------------|---|--------------------|
| | 2. Organic product is hard to find in a store where I purchase. | |
| | 3. I can easily find organic product in my neighbourhood. | |
| | 4. I would consider purchasing organic food if it is available at the place where I purchase food products. | |
| | 5. I intend to buy organic products if they are more accessible in the market. | |
| Attitudes | 1. Organic products have lower chemical residues than conventional products. | Teng & Wang (2015) |
| | 2 Organic products are safer to consume than conventional products. | |
| | 3. Organic products are healthier to consume than conventional products. | |
| | 4. Organic foods are tastes better than conventional food. | |
| | 5. Organic products have superior quality than conventional products. | |
| | 6. Organic products are more expensive to consume than conventional foods. | |
| | 7. Organic products are more attractive to consume than conventional products. | |

| Purchase Intention | 1. My attitudes are linked to my intention to buy organic products. | Mhlophe (2016) |
|------------------------|--|----------------|
| | 2. My intention to buy organic product in me comes from health reasons. | |
| | 3. My intention to buy organic products is linked to price of such products. | |
| | 4. My intention to buy organic products can develop with level its availability. | |
| | 5 I intend to buy produces with an organic products label. | |
| | 6. My intention to buy organic products can increase with more knowledge I may have about such products. | |
| | 7. Intention to buy organic products in me comes from the influence I get from others. | |
| | 8. My concerns about the environment improve my intention to buy organic | |
| Sauman Davidamed for t | products. | |

Source: Developed for this research

From table 3.2, the construct for health concerns, environmental concerns was adopted from the research carried out by Lau (2009). The construct for perceived value was adopted based on the research carried out by Kulikovski & Agolli, (2010). Besides that, the construct for availability was adopted from the research by Mhlophe, (2016). Meanwhile, the construct for attitudes of consumers was adopted from the research by Teng & Wang, (2015). Lastly, the construct for the dependent variable which is purchase intention was adopted from Mhlophe, (2016).

3.6 Data Processing

3.6.1 Data Processing Process

In this section, the data processing process for this paper will be discussed in which the data collected during the questionnaire survey will have to be converted to an appropriate format so that the statistical analysis can be easily carried out. According to Malhotra (2006), the data obtained during the primary survey will have to be converted to provide meaning to the data obtained. Without prior conversion, the data obtained is said to be meaningless and this will lead to incorrect interpretation and lastly inaccurate results.

The data processing process will begin with the questionnaire checking followed by data editing, data coding, data transcribing and data cleaning. Once the steps are carried out the data can finally be used to carry out data analysis.

3.6.2 Questionnaire Checking

The questionnaire that has been developed will go through a process called questionnaire checking in which the said questionnaire will be checked and moderated prior it being released to the target respondents to ensure that the questions in the questionnaire is reliable and accurate.

Questionnaire checking is needed firstly to ensure there are no inconsistent, incomplete or ambiguous questions presented to the respondents (Kothari, 2004). Secondly, questionnaire checking also helps to make sure that the wordings in the finalized questionnaire are unambiguous, simple and be interpreted easily by respondents. A pilot test of the questionnaire is also carried out to detect any errors in the questionnaire and making sure that the errors are solved before it is given to the target respondents during the actual survey.

3.6.3 Data editing

Editing of data is carried out after questionnaire checking to ensure that there are no incomplete questionnaires. The incomplete questionnaires will be rejected or re-answered by another respondent to avoid any errors during the analysis stage. This method helps to improve the accuracy and completeness of the questionnaire. This will in turn help to improve the results obtained as only completed questionnaires are analysed (Sekaran and Bougie 2010).

3.6.4 Data Coding

Data coding is the procedure in assigning values to illustrate certain answers of certain questions in the questionnaire (Zikmund et.al, 2013). The codes will be in numerical form to simplify the data entry process into the SPSS software for analysis purposes. This also helps with the interpretation of the results when the analysis is completed.

3.6.5 Data Transcribing

The procedure in moving the coded data obtained from the questionnaire survey into the SPSS software for analysis purposes is known as data transcribing. This will help with the interpretation of the coded data and to ensure that the coded data is relevant and accurate (Sekaran and Bougie 2010). Proper verification of the process is needed to ensure the coded data is correctly inputted into the SPSS software.

3.6.6 Data Cleaning

Data cleaning is the final stage prior to the data analysis process in which the data obtained in cleaned for the final time before the data is analysed using the SPSS software. Malhotra (2006) stated that data cleaning is carried out to ensure consistency and treatment of invalid data. The SPSS software is used as a tool for data cleaning in which any inconsistent or incorrect data can be easily identified. The ambiguous data will then be emended or added to ensure there are minimal variances affecting the final result of the analysis.

This marks the end of the data processing stage for this research. The data analysis methods used in this research paper will be explained in the following sub-section below.

3.7 Data Analysis

To conduct data analysis, there are various analyses that can be carried out. It is essential for researchers to have a proper understanding of the research objectives and select the relevant analyses to enable the researchers to successfully explain the results of the analyses that match the research objectives.

Numerous analyses can be carried out as part of data analyses, descriptive statistics, linear and multiple regressions and mediation analysis will be used in this research.

3.7.1 Statistical Package for Social Sciences (SPSS)

A program known as the Statistical Package for Social Sciences (SPSS) will be used to carry out the various tests needed in this research. It is a program most commonly used by researchers when researching on a social science topic (Malhotra, 2016). The SPSS can operate with large amounts of data and execute various types of tests such as descriptive analyses, inferential analyses, regressions, analysis of variance and many other analyses (Arkkelin, 2014). Therefore, the SPSS software is chosen as the program to run the various analyses on the variables being examined in the research on the factors that influence Generation Y consumers' purchase intention towards organic products in Malaysia.

3.7.2 Descriptive Analysis

The first data analysis that will be carried out in this study is descriptive analysis. It is commonly carried out to describe the sample of the population that was selected previously (Zikmund, 2003). This analysis will enable researchers to categorize the data collected for easier explanation. Numerous previous researches involving social sciences topics commonly use descriptive analysis to establish "universal" believes regarding a particular section of the population tested.

Descriptive analysis is based on gathering, compiling, analysing and presenting data that are beneficial in determining the characteristics of the selected sample in a graphical manner. Examples of descriptive analysis include frequency analysis, measures of central tendency and graphs such as pie charts and bar charts (Sekaran and Bougie, 2010).

3.7.2.1.1 Frequency Analysis

Frequency analysis is commonly carried to analyse the number of times a situation occurs within a period of time (Malhotra, 2006). Measures of central tendency namely mean, mode, and median are obtained via frequency analysis. Besides that, the confidence interval and probabilities can also be gathered using frequency analysis. Confidence interval is commonly used to test the hypotheses that were developed.

Frequency analysis is used to determine the percentage of the sample respondents think that any of the four independent variables in question namely, health concerns, perceived value consideration, environmental concerns and availability impacts their purchase intention to purchase organic products in Malaysia.

Frequency analysis also helps to provide an overview of the background of the respondents. Therefore, researchers are able obtain additional insights and gain a greater knowledge of the selected respondents. This insight will provide additional support to the results obtained to be reliable and bias-free.

3.7.3 Scale Measurement

Scale measurement is a crucial element in every research as it is used to analyse the validity and reliability of the measures or variable to ensure it is usable and accurate. This is due to a good usage of the research instruments are able to improve the result accuracy as well as the study's scientific quality (Sekaran and Bougie, 2010).

3.7.3.1 Reliability Test

A reliability test will be carried out to examine two separate versions of an instrument to ensure that both are comparable and reliable (Shuttleworth, 2009). It is commonly used to examine whether the data gathered is reliable and error free. Besides that, Sekaran and Bougie (2010) stated that by using the reliability test, the consistency of repeated test on the measurement and over different variables can be determined and confirmed. In other words, reliability analysis helps to provide stability and consistency to the concepts measurement and is effective in evaluating the "goodness" of a particular variable (Malhotra, 2006).

3.7.3.1.1 Cronbach's Alpha Analysis

Internal consistency reliability is to examine if numerous items that suggest measuring a similar construct generate identical values. There are two ways to identify internal consistency reliability namely split-half reliability analysis and Cronbach's alpha analysis. For split-half reliability test, the correlations between two different halves will indicate the measurement's level of internal consistency. As for the Cronbach's Alpha, the measurement is satisfactory and consistent if it obtains a coefficient alpha value of above 0.60 (Sekaran & Bougie, 2010).

3.7.4 Inferential Analysis

Inferential statistics will be carried out using data collected from the sample to come out with conclusions regarding Generation Y consumers in Malaysia. Inferential analysis is commonly implemented to deduce a conclusion that represents the population based on information obtain from a sample of the population (Burns & Bush, 2006). General linear regression, multiple linear regression, and mediator analysis are used as part of the inferential analysis in this particular paper where it will be used to examine the hypotheses developed previously.

3.7.4.1 Multiple Regression Analysis

Multiple regression analysis is commonly carried out to test the linkage of the various independent variables and the dependent variable (Sekaran & Bougie, 2010). The equation used commonly used for the multiple regression analysis is as follows:

$$Y = \alpha + \beta^1 X^1 + \beta^2 X^2 + \beta^3 X^3 + \beta^4 X^4 + \epsilon$$

Where:

Y = Dependent Variable

 α = Intercept or Constant

 β = Regression coefficient for the independent variable tested

X = Independent Variable (Predictor)

 $\varepsilon = \text{measurement of error}$

Sekaran & Bougie (2010) also states that the multiple regression analysis has a significant impact towards the research if the p-value obtained is below 0.5. Meanwhile, the multiple regression analysis is said have less significance towards the research if the p-value obtained is above 0.5. The coefficient of regression indicates the changes in the dependent variable (Y) when the independent variables are held.

One way analysis of variance (ANOVA) is carried out to test the variance between various groups of data. The test is significant when the probability found is below 0.05 and the F-test value obtained is large. The coefficient of determination (r^2) is also analysed to examine the relationship between the dependent variable and the independent variables in this research.

3.7.4.2 General Linear Regression Analysis

General linear regression is commonly performed to measure the linear relationship between a sample independent variable and the dependent variable (Sekaran & Bougie, 2010). The dependent variable is noted as Y is assume to have an association with the various independent variable, X. Therefore the equation for the general linear regression is $Y = \alpha + \beta_1 X_1 + \epsilon$

3.7.5 Mediation analysis

Baron and Kenny, (1986) defined that a particular variable can be used for mediation to assist in identifying the linkage between the predictor (independent variable) and criterion (dependent variable). There are several stages to examine the mediation;

- 1: Linear regression analysis with prediction to examine the mediation path.
- 2: Linear regression analysis in which the predictor predicts the criterion.
- 3: Multiple regression analysis between predictor, mediator and criterion.

Besides that, the mediator will have to fulfil the following requirements;

- 1: Predictor has a significant impact on presumed mediator.
- 2: Mediator has a significant impact on criterion.
- 3: Predictor has a significant impact on criterion.

Sobel's z-test is implemented to test the indirect effect between the independent variable and dependent variable with the help of a mediator (Sobel, 1982).

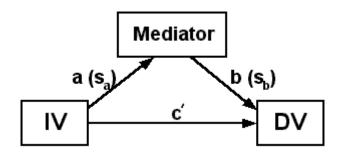


Figure 3.1: Sobel's z-test (source: http://quantpsy.org)

Partial mediation is where the connection between the IV and the DV is decreased but not nil when the mediator is added (Baron and Kenny, 1986). The case in which the relationship between the independent variable and dependent variable becomes nil when the mediator is introduced is known as full mediation (Hayes, 2009). Partial mediation will be used for this particular study.

3.8 Conclusion

The various methods used for data collection, research sampling, and data analyses and etc. of this study are explained in this chapter. Primary and secondary data collection methods are used where it is able to provide additional information to the researchers.

The Statistical Package for Social Sciences (SPSS) program is used to carry out tests based on the data obtained that enables the researchers to explain the data. Descriptive analysis is implemented to establish the number of times an event happens and distribution of the results obtained. A Cronbach's Alpha analysis is also implemented to measure the reliability various variables tested. Furthermore, general linear regression, multiple linear regression and mediation analyses are used to measure the factors that influence generation Y consumers' purchase intention towards organic products in Malaysia.

This marks the conclusion of this particular chapter. The discussion and interpretation of the various analyses carried and testing of the hypotheses will be carried out in the following chapter.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

The data of the questionnaire survey carried out will be analysed and described. The Statistical Package for Social Science (SPSS) software will be used to analyse the 300 sets of data collected. The various tests that are part of this chapter include the respondents' demographics and general information, the reliability test of each variable tested and the inferential analyses namely simple linear regression analysis and multiple regression analysis.

4.1 Descriptive Analysis

The characteristics of the survey respondents will be explained in this sub-section

4.1.1 Respondent's Profile

Table 4.1

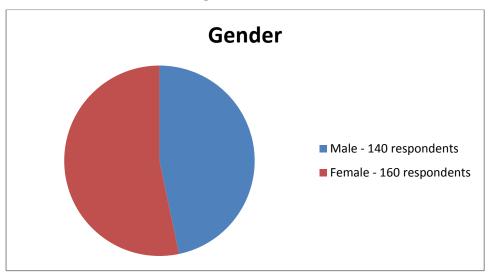
Statistics

| | | | | | | | Marital | Monthly |
|---|---------|--------|-----|------|-----------|------------|---------|---------|
| | | Gender | Age | Race | Education | Occupation | Status | Income |
| N | Valid | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| | Missing | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Source: Developed solely for research

4.1.1.1 Gender

Figure 4.1



The figure above indicates the gender of the respondents where 140 (46.7%) are male respondents and 160 (53.3%) are female respondents. More female respondents took part in the survey as compared to male respondents.

4.1.1.2 Age

Table 4.2

| Age | Number of Respondents | Percentage % |
|-------|------------------------------|--------------|
| 17-20 | 22 | 7.3% |
| 21-24 | 174 | 58% |
| 25-28 | 47 | 15.7% |
| 29-32 | 35 | 11.7% |
| 33-36 | 22 | 7.3% |
| TOTAL | 300 | 100% |

Based on Table 4.2, it was found that the bulk of the participants are aged between 21-24 years of age which makes up for 174 (58%) responses. Age group 25-28 have the second highest responses with 47 (15.7%) respondents. For the age groups of 17-20 years and 33-36 years have 22 (7.3%) each. 35 (11.7%) respondents are aged between 29-32 years.

4.1.1.3 Race

Figure 4.2

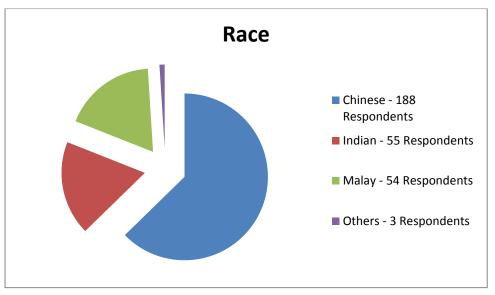


Figure 4.2 shows that most respondents are Chinese which makes up for 188 (62.7%) respondents. This is followed by Indian and Malay with 55 (18.3%) and 54 (18%) respectively. Last but not least there are also 3 (1%) respondents from other races.

4.1.1.4 Education Level

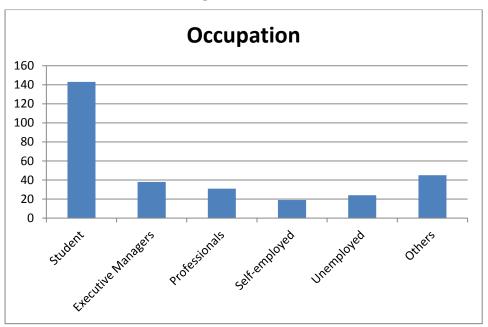
Table 4.3

| Education Level | Numbers of Respondent | Percentage% |
|------------------------|-----------------------|-------------|
| SPM | 27 | 9% |
| STPM | 41 | 13.7% |
| Bachelor Degree | 187 | 62.3% |
| Master Degree | 16 | 5.3% |
| Doctorate Degree | 7 | 2.3% |
| Others | 22 | 7.3% |
| TOTAL | 300 | 100% |

According to Table 4.3, it can be seen that 187 (62.3%) respondents have obtained a bachelor degree as their highest education. This is followed by 41 (13.7%) respondents with STPM as their highest education. 27 (9%) and 16 (5.3%) respondents have obtained SPM and a master degree as their highest education. Last but not least, there are also 7 (2.3%) and 22 (7.3%) respondents with a doctorate degree and other education levels respectively.

4.1.1.5 Occupation

Figure 4.3



According to Figure 4.3, it can be seen that majority of the respondent are students with 143 (47.7%) respondents. Executive/Managers ranked second with 38 (12.7%) respondents followed by Professionals with 31 (10.3%) respondents. 24 (8%) and 19 (6.3%) respondents are unemployed and self-employed respectively. There are also 45 (15%) respondents with other occupations.

4.1.1.6 Relationship Status

Table 4.4

| Relationship Status | Numbers of Respondent | Percentage |
|---------------------|-----------------------|------------|
| Single | 225 | 75% |
| Married | 75 | 25% |
| TOTAL | 300 | 100% |

According to Table 4.4, it can be seen that majority of the respondent are single with 225 (75%) respondents. Meanwhile there are 75 (25%) respondents who are married.

4.1.1.7 Income Levels

Table 4.5

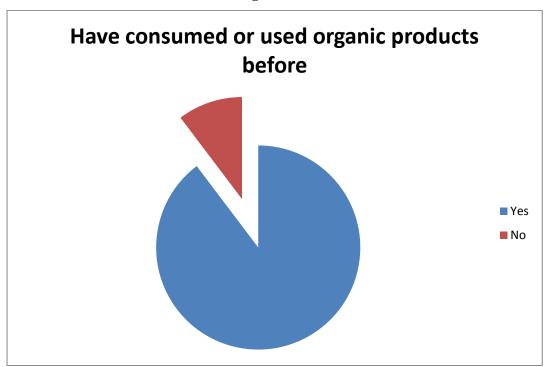
| Income Levels | Numbers of Respondent | Percentage |
|-------------------|-----------------------|------------|
| < RM 1,000 | 136 | 45.3% |
| RM 1,001-RM 2,499 | 61 | 20.3% |
| RM 2,500-RM 3,999 | 43 | 14.3% |
| RM 4,000 & above | 60 | 20.3% |
| TOTAL | 300 | 100% |

Based on Table 4.5, it was found that most of the respondents have a monthly salary of below RM 1,000 with 136 (45.3%) respondent. Income levels of RM 1,001–RM 2,499 have the second highest respondent with 61 (20.3%) respondents and are followed by income levels of RM 4,000 and above with 60 (20%) respondents. 43 (14.3%) respondents have income levels of RM 2,500 – RM 3,999.

4.1.2 Respondent's General Information

4.1.2.1 Have consumed or used organic products before

Figure 4.4



As shown in Figure 4.4, majority of the respondents have consumed or used organic products previously with 269 (89.7%) respondents choosing this answer. 31 (10.3%) respondents have never consumed or used organic products previously.

4.1.2.2 Have purchase organic products before

Figure 4.5



As shown in Figure 4.5, majority of the respondents have purchased organic products previously with 209 (69.7%) respondents choosing this answer. 91 (30.3%) respondents have never purchased any organic product previously.

4.1.2.3 Frequency of Organic Products Purchase

Table 4.6

| Frequency of purchase | Numbers of | Percentage |
|-----------------------|-------------|------------|
| | Respondents | |
| Every week | 14 | 4.7% |
| Every 2 weeks | 17 | 15.7% |
| Every month | 45 | 15% |
| Every 3 month | 67 | 22.3% |
| Every 6 month | 66 | 22% |
| TOTAL | 300 | 100% |

As shown in Table 4.6, 67 (22.3%) respondents that have purchased organic products previously will purchase organic products once every three months and this is followed by 66 (22%) respondents purchasing organic products once every six months. 45 (15%) respondents will purchase organic products every month while 17 (5.7%) and 14 (4.7%) respondents will purchase organic products every 2 weeks and every week respectively.

4.1.2.4 Influence of Pricing on Purchase Decision

Influence of pricing on purchase decision

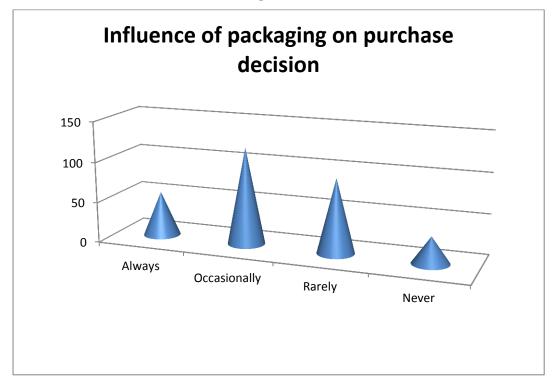
160
140
120
100
80
60
40
20
Occasionally Rarely Never

Figure 4.6

Based on Figure 4.6, it can be seen that pricing will always influence the purchase decision of most of the respondents with 148 (49.3%) respondents answering the option. This is followed by the occasionally option with 114 (38%) respondents. Pricing rarely influence 31 (10.3%) respondents in their purchase decision while pricing have never influenced 7 (2.3%) respondents.

4.1.2.5 Influence of Packaging on Purchase Decision

Figure 4.7



Based on Figure 4.7, it can be seen that packaging occasionally influences the purchase decision of most of the respondents with 120 (40%) respondents answering the option. This is followed by the rarely option with 92 (30.7%) respondents. 55 (18.3%) respondents are always influenced by the product packaging while 33 (11%) respondents were never influenced by the product packaging.

4.1.2.6 Shopping Location

Table 4.7

| Shopping Location | Numbers of respondent | Percentage | |
|--------------------------|-----------------------|------------|--|
| Market | 26 | 8.7% | |
| Supermarket | 117 | 39% | |
| Organic shop | 94 | 31.3% | |
| Health store | 50 | 16.7% | |
| Others | 13 | 4.3% | |
| TOTAL | 300 | 100% | |

According to Table 4.7, it is shown that most of the respondents and their families tend to shop for organic products at the Supermarket in which 117 (39%) respondents chose this option. The organic shop option is ranked second with 94 (31.3%) respondents choosing to shop at the location. This is followed by health product stores, market and other locations with 50, 26 and 13 respondents respectively.

4.1.2.7 Organic Products Purchased

Figure 4.8

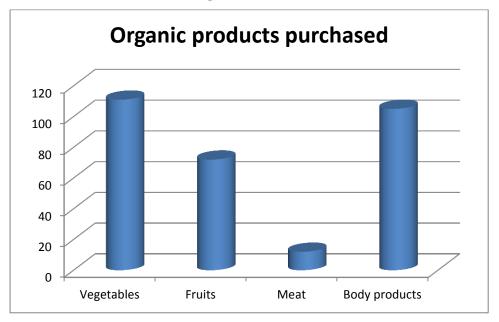


Figure 4.8 indicates that majority of the participants and their families tend to purchased organic vegetables with 111 (37%) respondents answering the option. The second most option is the organic body products option with 105 (35%) respondents. 72 (24%) respondents tend to purchase organic fruits while 12 (4%) respondents purchases organic meats.

4.2 Scale Measurement

4.2.1 Reliability Analysis

Table 4.8: Summary of Reliability Analysis

| Variables | Cronbach's Alpha |
|------------------------|------------------|
| Health Concerns | 0.855 |
| Environmental Concerns | 0.812 |
| Perceived Value | 0.850 |
| Availability | 0.743 |
| Attitudes | 0.819 |
| Purchase Intentions | 0.780 |

Source: Developed solely for research

For this study, Cronbach's Alpha analysis is used to test the internal reliability and consistency for the six constructs in question. In order to obtain the result above, 41 items is included in the survey. Table 4.8 shows that the Cronbach's Alpha for health concerns is 0.855, 0.812 for environmental concerns, 0.850 for perceived value, 0.743 for availability, 0.819 for attitudes and 0.780 for purchase intentions. Overall, the constructs have moderate strong reliability as all the values are above 0.70. In conclusion, all the constructs indicates a reliability of above 0.60 which proves the constructs are stable and consistent.

4.3 Inferential Analysis

4.3.1 Multiple Regression Analysis

H1: Health concerns have a positive relationship with generation Y consumers' attitudes.

H2: Environmental concerns have a positive relationship with generation Y consumers' attitudes.

H3: The perceived value of organic products has a positive relationship with generation Y consumers' attitudes.

H4: The availability of organic products has a positive relationship with generation Y consumers' attitudes.

Table 4.9(a) Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|----------------------|----------------------------|
| 1 | .665 ^a | .443 | .435 | .3495270 |

a. Predictors: (Constant), Health Concerns, Availability, Environmental Concerns, Perceived Value

Table 4.9(b)
ANOVA^b

| Mode | el | Sum of Squares | df | Mean Square | F | Sig. |
|------|------------|----------------|-----|-------------|--------|-------------------|
| 1 | Regression | 28.606 | 4 | 7.151 | 58.537 | .000 ^a |
| | Residual | 36.040 | 295 | .122 | | |
| | Total | 64.646 | 299 | | | |

a. Predictors: (Constant), Health Concerns, Availability, Environmental Concerns, Perceived Value

b. Dependent Variable: Attitudes

Table 4.9(c)
Coefficients^a

| | | Unstandardized Coefficients | | Standardized Coefficients | | |
|-------|-------------------------|-----------------------------|------------|------------------------------|-------|------|
| Model | | В | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | 1.539 | .170 | | 9.061 | .000 |
| | Availability | .335 | .051 | .383 | 6.620 | .000 |
| | Environment al Concerns | .168 | .043 | .217 | 3.877 | .000 |
| | Perceived Value | .092 | .039 | .155 | 2.360 | .019 |
| | Health Concerns | .062 | .028 | .067 | 1.957 | .001 |

a. Dependent Variable: Attitudes

Source: Developed solely for research

Table 4.9a indicates the multiple regression analysis results in which 44.3% of the variance in consumer attitudes can be explained by the four independent variables tested (health concerns, environmental concerns, perceived value and availability) as the R^2 is 0.443. Based on the F value of 58.537 obtained in Table 4.9b, it shows the value is significant at p-value = 0.05. The overall regression model of health concerns, environmental concerns, perceived value and availability have managed to explain the variation in consumer attitudes.

Health concerns and perceived value were found to be significant at 0.001 (t-value = 1.957, p-value <0.05) and 0.019 (t-value = 2.360, p-value <0.05) respectively based on Table 4.9c. Besides that, availability and environmental concerns were also found to be significant at 0.000 (t-value = 6.620, p-value <0.05) and 0.000 (t-value = 3.877, p-value <0.05) respectively. Thus all four hypotheses proposed are supported.

Furthermore, it was found that availability have the greatest relationship with consumer attitudes (β =0.383) followed by environmental concerns (β =0.217), perceived value (β =0.155) and health concerns (β =0.067).

Based on the results in table 4.9c, consumer attitudes will increase by 0.335 units with every one unit increase in availability, 0.168 for every unit of environmental concerns, 0.092 for every unit of perceived value and 0.062 for every unit of health concerns. Hence the following equation is formed.

AT = 1.539 + 0.335AB + 0.168EC + 0.092PV + 0.062HC

4.3.2 Simple Regression Analysis

H5: The attitudes of Generation Y consumers have a positive relationship with their intention to purchase organic products.

Table 4.10(a)
Model Summary

| | , | | Adjusted R | Std. Error of the |
|-------|-------------------|----------|------------|-------------------|
| Model | R | R Square | Square | Estimate |
| 1 | .590 ^a | .348 | .346 | .399985 |

a. Predictors: (Constant), Attitudes

Table 4.10(b)

ANOVA^b

| Μ | lodel | Sum of Squares | df | Mean Square | F | Sig. |
|---|------------|----------------|-----|-------------|---------|-------------------|
| 1 | Regression | 25.447 | 1 | 25.447 | 159.057 | .000 ^a |
| | Residual | 47.676 | 298 | .160 | | |
| | Total | 73.124 | 299 | | | |

a. Predictors: (Constant), Attitudes

b. Dependent Variable: Purchase Intention

Table 4.10(c)

Coefficients^a

| | Unstandardized Coefficients | | Standardized Coefficients | | | |
|-------|-----------------------------|-------|------------------------------|------|--------|------|
| Model | | В | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | 1.304 | .191 | | 6.828 | .000 |
| | Attitudes | .627 | .050 | .590 | 12.612 | .000 |

a. Dependent Variable: Purchase Intention Source: Developed solely for research

Consumer Purchase Intention

Table 4.10a indicates the R^2 value of 0.348 in which consumer attitudes are able

to explain the variation in purchase intention by 34.8%. Based on the F value of

159.057 obtained in Table 4.10b, it shows the value is significant at p-value =

0.05. The overall regression model of consumer attitudes has been able to explain

the variation in purchase intention.

In table 4.10c, consumer attitudes was found to be significant at 0.000 (t-value =

12.612, p-value <0.05). With this, H5 is found to be supported and there is a

significant positive relationship between consumer attitudes and purchase

intention.

Based on the results in table 4.10c, purchase intention will gain 0.627 units with

every one unit increment in consumer attitudes. Hence the following equation is

formed.

PI = 1.304 + 0.627AT

74

4.3.3 Mediator Analysis

H6: The attitudes of Generation Y consumers will mediate the relationship between availability with the Generation Y consumers' intention to purchase organic products.

Table 4.11(a)
Coefficients^a

| | | Unstandardize | ed Coefficients | Standardized Coefficients | | |
|-------|--------------|---------------|-----------------|------------------------------|--------|------|
| Model | | В | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | 1.955 | .145 | | 13.454 | .000 |
| | Availability | .524 | .041 | .599 | 12.918 | .000 |

a. Dependent Variable: Attitudes

Table 4.11(b)

Coefficients^a

| | | Unstandardize | ed Coefficients | Standardized Coefficients | | |
|-------|--------------|---------------|-----------------|------------------------------|-------|------|
| Model | | В | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | .932 | .179 | | 5.205 | .000 |
| | Availability | .399 | .049 | .429 | 8.098 | .000 |
| | Attitudes | .354 | .056 | .333 | 6.286 | .000 |

a. Dependent Variable: Purchase Intention

Table 4.11(c)

Coefficients^a

| | | Unstandardize | ed Coefficients | Standardized Coefficients | | |
|------|--------------|---------------|-----------------|------------------------------|--------|------|
| Mode | el | В | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | 1.625 | .150 | | 10.821 | .000 |
| | Availability | .584 | .042 | .628 | 13.944 | .000 |

a. Dependent Variable: Purchase Intention

Table 4.11(d)

| Input: | | Test statistic: | <i>p</i> -value: |
|-----------------------|---------------|-----------------|------------------|
| t _a 12.918 | Sobel test: | 5.65232192 | 2e-8 |
| t _b 6.286 | Aroian test: | 5.63867808 | 2e-8 |
| | Goodman test: | 5.66606528 | 1e-8 |
| | Reset all | Calculate | |

Source: Developed solely for research

Three regressions have conducted as part of the mediation analysis, the researchers. T- Values of 12.918 (Table 4.11a) and 6.286 (Table 4.11b) were obtained for the first and second regressions. Table 4.11(d) shows the results of the Sobel's Test, (t-value = 5.6523, p-value = 2e-8), it is able to conclude that consumer attitudes are able to mediate the relationship between availability and purchase intention. Availability was also found to have a significant direct relationship with purchase intention (p-value = 0.000, t-value = 13.944) and consumer attitudes have partial mediating effect which translate to the availability has a strong relationship with the purchase intention and a strong mediating effect from consumer attitudes.

4.4 Conclusion

As a conclusion, descriptive analysis was implemented to analyse the survey respondents' demographics and purchasing patterns. To test the consistency of the variables, a Cronbach's Alpha test was carried out. Besides that, both single and multiple regressions analyses were undertaken to investigate the relation between the independent variables and dependent variable. A mediator analysis was also carried out to test the effect of the mediating variable.

The results of the analysis will be discussed in the next chapter along with the implications of this research.

CHAPTER 5: DISCUSSION, IMPLICATIONS AND CONCLUSION

5.0 Introduction

In the previous chapter, both descriptive and inferential analyses were carried out. The results obtained from the analyses will be discussed in this chapter. The implications and limitations will also be discussed. A few recommendations will be given to improve future researches and the chapter will conclude with a conclusion.

5.1 Summary of Statistical Analysis

5.1.1 Summary of Descriptive Analysis

5.1.1.1 Respondents' Profile

From the 300 responses, it was found that 53.3% were female and 46.7% were male. In terms of age, 58% of the respondents are aged between 21-24 years old. Chinese makes up for the majority of the race of the respondents with 62.7% followed by Indian and Malay. Last but not least, majority of the respondents are students that have a monthly income of below RM 1,000.

5.1.1.2 Respondents' General Information

From the 300 respondents, it was found that 89.7% have consumed or used organic products previously. 209 of the 300 respondents have purchased organic products before and 22.3% of these respondents will purchase organic products once every 3 months. Supermarkets were found to be the most popular location for respondents and their families to purchase organic products with 39% of selecting this option. Organic vegetables were found to be the most popular product among respondents with 37% and closely followed by organic body products with 35%.

5.1.2 Summary of Inferential Analysis

5.1.2.1 Multiple Regression Analysis Result

Multiple regression analysis was carried out to investigate the relationship between health concerns, environmental concern, perceived value and availability and consumer attitudes. All four variables have positive significant value which indicate positive relationships with consumer attitudes (p<0.05).

5.1.2.2 Simple Linear Regression Analysis Result

A simple linear regression analysis was carried out to investigate the relationship between consumer attitudes and purchase intention. Based on the results obtained, the relationship between consumer attitudes and purchase intention was found to have be positive and significant (t-value =12.612, p-value <0.05).

5.1.2.3 Mediator Analysis Result

A mediation analysis was carried out to determine the mediating effect of consumer attitudes between availability and purchase intention. From the result, consumer attitudes is able to mediate the relationship between availability and purchase intention with the following significance value 0.000 (p<0.05). With this, the last hypothesis (H6) proposed is found to be supported.

5.2 Discussion of Major Findings

Table 5.1: Results on Hypotheses Testing

| | II-mathana | Significance | Supported / Not |
|----|---|--------------|-----------------|
| | Hypotheses | Level | Supported |
| H1 | Health concerns have a positive relationship with generation Y consumers' attitudes. | 0.001 | Supported |
| H2 | Environmental concerns have a positive relationship with generation Y consumers' attitudes. | 0.000 | Supported |
| НЗ | The perceived value of organic products has a positive relationship with generation Y consumers' attitudes. | 0.019 | Supported |
| H4 | The availability of organic products has a positive relationship with generation Y consumers' attitudes. | 0.000 | Supported |
| Н5 | The attitudes of Generation Y consumers have a positive relationship with their intention to purchase organic products. | 0.000 | Supported |
| Н6 | The attitudes of Generation Y consumers will mediate the relationship between availability with the Generation Y consumers' intention to purchase organic products. | 0.000 | Supported |

Source: Developed for research

H1: Health concerns have a positive relationship with generation Y consumers' attitudes.

The multiple regression analysis showed that health concerns has a significant positive relationship with consumer attitudes (t-value = 1.957, p<0.05) and H1 is supported.

In this study, the result indicates that health concerns are among the important factors in affecting consumer attitudes in their intention to purchase organic products among Generation Y consumers. The result is supported by Hassan, Loi & Kok (2015), that states health-conscious consumers will develop positive attitudes towards the health enhancing benefits of organic products especially food products and this will in turn influence their intention towards purchasing organic products.

In Lau (2009), it was also found that health concerns prove to be an important factor among Hong Kong consumers when purchasing organic products. Yang, Al-Shaaban & Nguyen (2014), it was found that consumers in China that have high health conscientiousness are more likely to show a positive attitude towards organic products. Chinese consumers trust that organic products use more natural ingredients and are beneficial to one's body as compared to conventional products. This is also supported by the results in which Generation Y consumers and their families tend to purchase organic vegetables and fruits compared to other organic products as these products are essential in our daily lives.

H2: Environmental concerns have a positive relationship with generation Y consumers' attitudes.

The multiple regression analysis showed that environmental concerns has a significant positive relationship with consumer attitudes (t-value = 3.877, p-value <0.05) and H2 is supported.

This result shows that environmental concerns significantly influence consumers' attitudes to purchase organic products. This could be due to the increase in their understanding about environmental issues especially among Generation Y consumers and trust organic food production brings a positive impact towards the environment. In Gomiero et al. (2011), it was found that consumers tend to purchase organic food products due to its farming methods. This is due to organic farming brings less harm on the environment as compared to conventional agricultural methods.

Besides that, organic products are said to use minimal amount of fertilizers, pesticides, and artificial colouring thus bringing a low impact towards the environment and provides a high amount of vitamins, minerals and natural ingredients to consumers (Oroian.et.al, 2017). Environmental concerns were also found to be an important factor in influencing consumer attitudes when purchasing organic products (Ponsanam et.al, 2014). Environmental concerns being a significant factor is supported as there are more consumers today that puts the "Going Green" attitude when purchasing goods and these consumers place a high importance in preserving the environment (Joshi, 2015).

H3: Perceived value of organic products has a positive relationship with generation Y consumers' attitudes.

The multiple regression analysis found that perceived value has a significant positive relationship with consumer attitudes (t-value = 2.360, p-value <0.05) and H3 is supported.

The results indicated that perceived value significantly influence consumers' attitudes to purchase organic products. The respondents place a high value towards organic products as majority of the respondents' value organic products highly and the products are important in their lives. Most consumers that purchases organic products search for more than just a product; they search for the additional value comes along with the product such as the values of organic products to be healthier and safer than normal products (Kulikovski & Agolli, 2010). Consumers' willingness to pay for a higher price when purchasing organic products is an indication that the products have a high value (Pellegrini and Farinello, 2009). The results are also in agreement with prior studies that show consumers who positively values organic products are more likely to purchase and consume organic products and therefore converting the positive attitudes into purchase intentions.

H4: Availability of organic products has a positive relationship with generation Y consumers' attitudes.

The multiple regression analysis indicate that availability has a significant positive relationship with consumer attitudes (t-value = 6.620, p-value <0.05) and H4 is supported.

The results indicated that availability significantly influence consumers' attitudes to purchase organic products. Availability of organic products helps to shape consumers' attitude and have positive purchase intentions towards organic products (Olivov á, 2011). Prior studies have stated that convenient availability of

a product will influence a favourable attitude towards purchase intention (Tarkiainen and Sundqvist, 2005). Past researchers have found that easy availability of organic products will lead to positive attitudes towards organic products (Tarkiainen and Sundqvist, 2005; Vermeir and Verbeke, 2008). The main reason is due to consumers are more likely to purchase products that convenient and are easily available in the market (Tanner and Kast, 2003).

Limited availability and inconvenience is considered to be a barrier in purchasing organic products and lead to negative attitudes that reduces the purchase intentions (Joshi 2015) while Young (2010) states that limited availability of organic products will have a negative impact on consumers' attitude. Therefore, based on the results obtained, it can be said that majority of the respondents have favourable attitudes towards purchasing organic products due to the easy availability in the market.

H5: The attitudes of Generation Y consumers have a positive relationship with their intention to purchase organic products.

The simple regression analysis indicate that consumer attitudes has a significant positive relationship with consumers' intention to purchase organic products (t-value = 12.612, p-value <0.05) and H5 is supported.

The results indicated that consumer attitude significantly influence consumers' intention to purchase organic products. Consumer attitude was said to be an important variable in determining the purchase intention towards organic products (Thøgersen, 2007). The results is similar with the findings found in Yang, Al-Shaaban & Nguyen (2014) where Chinese consumers are more likely to purchase additional organic products if they have a positive attitude towards organic products while Chen (2007), states that positive consumer attitudes will lead to positive intentions to purchase organic products and vice versa. The results of the hypothesis support the Theory of Planned Behaviour (TPB), in which a person's attitudes are one of the main factors that determine an individual's intention to

showcase a particular behaviour (Ajzen, 1991). Based on the results obtained, it can be said that majority of the respondents have positive attitudes towards organic products and this may lead to purchase intentions.

H6: The attitudes of Generation Y consumers will mediate the relationship between availability with the Generation Y consumers' intention to purchase organic products.

The mediating analysis found that consumer attitudes is able to mediate the relationship between availability and consumers' intention to purchase organic products (t-value = 13.944, p-value <0.05) and H6 is supported.

The result indicates that consumer attitude is able to significantly mediate the relationship between availability and purchase intention. The findings is similar to that of Teng and Wang (2015), in which attitudes is able to mediate the relationship between the independent variables and purchase intention of organic products. In Nam, Dong & Lee (2017), consumer attitudes were found to partially mediate the relationship between consumer expectation and purchase intention and fully mediate the relationship between consumer perception and purchase intention in their research on green footwear. This result helps to support the role of consumers' attitudes as the mediator between availability and purchase intention in this study. Thus, it can be said that Generation Y consumers will have positive attitudes that leads to purchase intention if there is a high availability of organic products in the market.

5.3 Implications of Study

There are some implications that impact the various stakeholders and it will be discussed as follows.

5.3.1 Managerial Implications

Based on the findings of this study, stakeholders will have to take note of some key factors when attracting Generation Y consumers. Organic product marketers and academicians are able to better understand the factors that motivates Generation Y consumers' attitude that may lead to actual purchase intention.

The main determinant that contributes to this research is that consumers' intention to purchase organic products is highly dependent on the various factors that impacts consumer attitudes to purchase. Health concerns, environmental concerns, perceived value and availability are the main factors that determine a person's attitudes towards purchasing organic products. Thus, marketers could use the results obtained to develop proper marketing plans to promote organic products and motivate consumer attitudes to purchase these products (Hassan, Loi & Kok, 2015).

Practitioners should educate Generation Y consumers regarding the health and environmental benefits of using organic products, as they are now considered to be the largest consumer group. This is due to many Generation Y consumers especially in sub-urban areas are not aware of the benefits of organic products. The practitioners can do so by conducting roadshows and events in sub-urban areas to attract and educate all consumers' not just Generation Y consumers about the health and environmental benefits of using organic products.

Besides that, due to the significant relationship between organic products availability and purchase intention, marketers can increase the availability of organic products in the market to increase consumers' intention to purchase these products. It can also be used as indirect way to increase consumers' knowledge about organic products and their benefits towards health and environment. This is due to more people will be interested in trying organic products once they are introduced to organic products.

Finally, the Malaysian ministry of agriculture and agro-based industry should provide more assistance to organic farmers and marketers to carry out large-scale production to achieve economies of scale thus, minimizing the production cost and increase production. With this assistance, the price of organic products would be lowered and be more affordable for all consumers and increase the usage of organic products in Malaysia, as the premium price of organic products is one of the main factors for the lack of usage of organic products in Malaysia.

5.4 Limitations of Research

As in every research, it is bound to have some limitations and it will be discussed below to improve future research as well as to enable the researchers to learn from these limitations.

Firstly, the time available for the researchers to carry out the research is limited in which the total period to finish this study is approximately six months with the actual data collection period lasting only one month. A longer period is needed for the researchers to distribute the questionnaire to suitable respondents and obtain their feedback.

For this study, Generation Y consumers are targeted however majority of the respondents are still students that may not have the necessary resources to purchase organic products. Besides that, the items asked in the questionnaire only

covers health concerns, environmental concerns, perceived value, availability and consumer attitudes. This may not be able to represent the full factors that influences the consumers purchase intention.

In addition, the small amount of respondents selected is another limitation in which only 300 respondents is part of the sample. This is not enough to fully represent the entire population of Generation Y consumers in Malaysia and may jeopardise the reliability of the research.

Lastly, the use of non-probability sampling may provide some errors in the results due to bias and error from the respondents. Some respondents who are not fluent in English may provide the error as they may answer according to their perception and ignores the significant situation factor. The researchers will have to spend additional time with these respondents and thus impact their availability to collect data.

5.5 Recommendations for Future Studies

Several recommendations are recommended to researchers to improve any future studies on this topic.

It is advisable to spend a longer period in conducting the research as six months is deemed too short to carry out a study on this topic. With additional time, researchers are able to search for even more materials that are able to better support the variables and hypotheses. Different sampling methods can also be used such as interviewing respondents and avoid the bias and errors in the data collected.

In addition, future researchers are recommended to expand the sample size of 300 respondents. This will enable the researcher to collect data from respondents that have different perception towards the topic. A more accurate and reliable result can be obtained from this expansion.

Besides that, future researchers are recommended to prepare their questionnaire is multiple languages to cater to non-English educated respondents. This will help the researchers to minimize the duration needed to explain the questions to the respondents and spend more time in data collection.

Lastly, future researchers are recommended to expand the coverage area in terms of the variables and constructs tested. It is suggested to include variables that were omitted from this study such as eco-labelling, consumer knowledge and marketing efforts. This will help the researchers to obtain a more precise and reliable study as additional variables is able to improve the reliability of the study.

5.6 Conclusion

In conclusion, this study has managed to achieve its main objective to investigate the main determinants that impacts Generation Y consumers' purchase intention towards organic products in Malaysia. The independent variables of health concerns, environmental concerns, perceived value, and availability have been examined to test their relationship with consumers' attitudes. Furthermore, the study has also clarified the role of health concerns, environmental concerns, perceived value, and availability in affecting consumers' attitudes which mediates towards Generation Y consumers' purchase intention towards organic products in Malaysia.

This study hopes to serve as a guide and reference to the stakeholders in the organic industry and boost the industry in Malaysia.

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Appendix A Survey Questionnaire



UNIVERSITI TUNKU ABDUL RAHMAN

Faculty of Accountancy and Management

Bachelor of International Business (Hons)

FINAL YEAR PROJECT

Title of Research:

Factors Affecting Generation Y Consumers' Purchase Intention towards
Organic Products in Malaysia.

SURVEY QUESTIONNAIRE

Dear Respondent,

We are a group of undergraduates' currently pursuing Bachelor of International Business (Hons) from the Faculty of Accountancy and Management (FAM) at Universiti Tunku Abdul Rahman (UTAR). We are conducting a survey for the research of "Factors Affecting Generation Y Consumers' Purchase Intention towards Organic Products in Malaysia".

In this questionnaire, there will be three (3) sections and will require approximately five (5) to ten (10) minutes to complete. Kindly complete all the questions in this questionnaire.

The information collected will be used solely for the purpose of this research. We will ensure that all the information collected is kept private and confidential. We truly appreciate your cooperation in completing this questionnaire. Enclosed below are the details of the group members.

Thank you for your time.

| Name | ID Number |
|----------------|--------------|
| Chong Jia Ying | 14 UKB 07826 |
| Chua Hian Soon | 13 UKB 02540 |
| Lwee Kui Fang | 14 UKB 07423 |
| Ng Shih Yean | 14 UKB 06683 |

PERSONAL DATA PROTECTION STATEMENT

Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

Notice:

- 1. The purposes for which your personal data may be used are inclusive but not limited to:-
- For assessment of any application to UTAR
- For processing any benefits and services
- For communication purposes
- For advertorial and news
- For general administration and record purposes
- For enhancing the value of education
- For educational and related purposes consequential to UTAR
- For the purpose of our corporate governance
- For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan

- 2. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.
- 3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.
- 4. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:

- 1. By submitting this form you hereby authorise and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.
- 2. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.
- 3. You may access and update your personal data by writing to us at suzannet@1utar.my

| ACKIO | owledgment of Notice: |
|--------|--|
| | I have been notified by you and that I hereby understood, consented and I per UTAR notice (refer to PDPA Statement). |
| [] | I disagree; my personal data will not be processed. |
| Signat | rure: |
| Name: | : |
| Date: | |

Section A

| Please below. | mark 	✓ on the answer | that matches your rep | resentation of all the questions | | | | | | |
|---------------|----------------------------|-----------------------|----------------------------------|--|--|--|--|--|--|
| 1. Gene | der | | | | | | | | |
| | ☐ Male ☐ Fen | nale | | | | | | | |
| 2. Age | | | | | | | | | |
| | \square 17 – 20 years | □ 21 – 24 yea | nrs | | | | | | |
| | ☐ 25 – 28 years | □ 29 – 32 yea | nrs | | | | | | |
| | ☐ 33 – 36 years | | | | | | | | |
| 3. Race | e | | | | | | | | |
| | ☐ Malay ☐ Chinese ☐ Indian | | | | | | | | |
| | ☐ Others: | | | | | | | | |
| 4. High | nest Education Level | | | | | | | | |
| | □ SPM | | □ STPM | | | | | | |
| | ☐ Bachelor Degree | | ☐ Master Degree | | | | | | |
| | ☐ Doctorate Degree | | ☐ Others: | | | | | | |
| 5. Occi | upation | | | | | | | | |
| | ☐ Student | ☐ Professional | ☐ Executive / Manager | | | | | | |
| | ☐ Unemployed | ☐ Self-employed | ☐ Others: | | | | | | |
| 6. Mari | ital Status | | | | | | | | |
| | ☐ Married | ☐ Single | ☐ Others: | | | | | | |

7. Monthly Personal Income

☐ Below RM 1,000 ☐ RM 1,000 − RM 2,499

 \square RM 2,500 – RM 3,999 \square RM 4,000 & Above

Section B – General Questions

below. All questions are related to organic products purchase and consumption. 1. Have you ever consume or use organic products? ☐ Yes ☐ No (Thank you, you may return the questionnaire to the interviewer) 2. Have you ever purchase organic products? ☐ Yes (kindly proceed to question 3) □ No (kindly proceed to question 4) 3. How frequent do you purchase organic products? ☐ Once a Week ☐ Once every Two Weeks ☐ Once every Month ☐ Once every 3 months ☐ Once every 6 months 4. Does pricing of the products influence your decision to purchase? ☐ Always ☐ Occasionally ☐ Rarely □ Never 5. Does packaging of the products influence your purchase decision? ☐ Occasionally ☐ Always □ Rarely □ Never 6. Where do you and your family usually shop for organic products? (You may choose more than one item) ☐ Organic Shops ☐ Market □ Supermarkets ☐ Health product stores ☐ Others:

Please mark ✓ on the answer that matches your representation of all the questions

| 7. | Which | type | of | organic | products | do | you | and | your | family | often | purchase's |
|----|-------|-------|-------|----------|------------|-------|-----|-----|------|--------|-------|------------|
| | (Y | ou ma | y cl | hoose mo | ore than o | ne it | em) | | | | | |
| | | Orgai | nic ' | Vegetabl | es | | | | | | | |
| | | Orgai | nic] | Fruits | | | | | | | | |
| | | Orgai | nic I | Meats | | | | | | | | |
| | | Orgai | nic l | body pro | ducts | | | | | | | |

Section C – Opinion on Organic Products

Listed below are the measurement items regarding factors affecting the attitude of consumers that leads to the purchase intention of organic products. Kindly **circle** the number that reflects your opinion for each of the following questions.

| Health Concerns | Strongly Disagree | Disagree | Neither Agree Nor Disagree | Agree | Strongly Agree |
|--|----------------------|----------|----------------------------------|-------|-------------------|
| 1. I am concerned about my health all the time. | 1 | 2 | 3 | 4 | 5 |
| 2. I always avoid eating foods with additives and preservatives. | 1 | 2 | 3 | 4 | 5 |
| 3. I always eat fresh and healthy foods, e.g. fruits, vegetables, etc. | 1 | 2 | 3 | 4 | 5 |
| 4. I always pay attention to a balanced diet. | 1 | 2 | 3 | 4 | 5 |
| 5. I usually read the ingredients on product labels. | 1 | 2 | 3 | 4 | 5 |
| 6. I worry that there are harmful chemicals in my food. | 1 | 2 | 3 | 4 | 5 |
| 7. I am concerned about my drinking water | 1 | 2 | 3 | 4 | 5 |
| 8. I read more health-related articles than I did 3 years ago. | 1 | 2 | 3 | 4 | 5 |
| 9. I am interested in information about my health. | 1 | 2 | 3 | 4 | 5 |
| 10. I always avoid eating snacks. | 1 | 2 | 3 | 4 | 5 |

| Environmental Concerns | Strongly Disagree | Disagree | Neither Agree Nor Disagree | Agree | Strongly Agree |
|--|----------------------|----------|----------------------------------|-------|-------------------|
| 1. I prefer to buy environmental friendly labelled products. | 1 | 2 | 3 | 4 | 5 |
| 2. I always avoid using disposable tableware. | 1 | 2 | 3 | 4 | 5 |
| 3. I bring my shopping bag when I go shopping. | 1 | 2 | 3 | 4 | 5 |
| 4. I avoid purchasing products in environmental unfriendly packages. | 1 | 2 | 3 | 4 | 5 |
| 5. I always save energy. | 1 | 2 | 3 | 4 | 5 |
| 6. I always donate things I do not need (like electric appliances, computers, toys, clothes) to the charity. | 1 | 2 | 3 | 4 | 5 |
| 7. I use double sides of a paper before throwing it away or taking it recycled. | 1 | 2 | 3 | 4 | 5 |
| 8. I always recycle plastic bottles and newspaper etc. | 1 | 2 | 3 | 4 | 5 |

| Perceived Value | Strongly Disagree | Disagree | Neither Agree Nor Disagree | Agree | Strongly Agree |
|--|----------------------|----------|----------------------------------|-------|-------------------|
| 1. Organic food is valuable to me. | 1 | 2 | 3 | 4 | 5 |
| 2. In general, I hold a positive opinion about organic products. | 1 | 2 | 3 | 4 | 5 |
| 3. Organic food products are an important part of my life. | 1 | 2 | 3 | 4 | 5 |

| A wailabilite | Strongly | Disagree | Neither | Agree | Strongly |
|---|----------|----------|-----------------------|-------|----------|
| Availability | Disagree | | Agree Nor Disagree | | Agree |
| 1. Organic product is sufficiently available at the store where I shop. | 1 | 2 | 3 | 4 | 5 |
| 2. Organic product is hard to find in a store where I purchase. | 1 | 2 | 3 | 4 | 5 |
| 3. I can easily find organic product in my neighbourhood. | 1 | 2 | 3 | 4 | 5 |
| 4. I would consider purchasing organic food if it is available at the place where I purchase food products. | 1 | 2 | 3 | 4 | 5 |
| 5. I intend to buy organic products if they are more accessible in the market. | 1 | 2 | 3 | 4 | 5 |

| Attitudes | Strongly Disagree | Disagree | Neither Agree Nor Disagree | Agree | Strongly Agree |
|--|----------------------|----------|----------------------------------|-------|-------------------|
| 1. Organic products have lower chemical residues than conventional products. | 1 | 2 | 3 | 4 | 5 |
| 2. Organic products are safer to consume than conventional products. | 1 | 2 | 3 | 4 | 5 |
| 3. Organic products are healthier to consume than conventional products. | 1 | 2 | 3 | 4 | 5 |
| 4. Organic foods are tastes better than conventional food. | 1 | 2 | 3 | 4 | 5 |
| 5. Organic products have superior quality than conventional products. | 1 | 2 | 3 | 4 | 5 |
| 6. Organic products are more expensive to consume than conventional foods. | 1 | 2 | 3 | 4 | 5 |
| 7. Organic products are more attractive to consume than conventional products. | 1 | 2 | 3 | 4 | 5 |

| Purchase Intentions | Strongly Disagree | Disagree | Neither Agree Nor Disagree | Agree | Strongly Agree |
|--|----------------------|----------|----------------------------------|-------|-------------------|
| 1. My attitudes are linked to my intention to buy organic products. | 1 | 2 | 3 | 4 | 5 |
| 2. My intention to buy organic product in me comes from health reasons. | 1 | 2 | 3 | 4 | 5 |
| 3. My intention to buy organic products is linked to price of such products. | 1 | 2 | 3 | 4 | 5 |
| 4. My intention to buy organic products can develop with level its availability. | 1 | 2 | 3 | 4 | 5 |
| 5. I intend to buy produces with an organic products label. | 1 | 2 | 3 | 4 | 5 |
| 6. My intention to buy organic products can increase with more knowledge I may have about such products. | 1 | 2 | 3 | 4 | 5 |
| 7. Intention to buy organic products in me comes from the influence I get from others. | 1 | 2 | 3 | 4 | 5 |
| 8. My concerns about the environment improve my intention to buy organic products. | 1 | 2 | 3 | 4 | 5 |

Appendix B SPSS Output

Statistics

| | | Gender | Age | Race | Education | Occupation | Marital Status | Monthly Income |
|---|---------|--------|-----|------|-----------|------------|-------------------|-------------------|
| N | Valid | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| | Missing | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Gender

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------|-----------|---------|---------------|-----------------------|
| Valid | Male | 140 | 46.7 | 46.7 | 46.7 |
| | Female | 160 | 53.3 | 53.3 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

Age

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|-----------------------|
| Valid | 17-20 | 22 | 7.3 | 7.3 | 7.3 |
| | 21-24 | 174 | 58.0 | 58.0 | 65.3 |
| | 25-28 | 47 | 15.7 | 15.7 | 81.0 |
| | 29-32 | 35 | 11.7 | 11.7 | 92.7 |
| | 33-36 | 22 | 7.3 | 7.3 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

Race

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|---------|------------|----------|-----------------|-----------------------|
| | _ | rrequericy | r ercent | valid i ercerit | i elcelit |
| Valid | Malay | 54 | 18.0 | 18.0 | 18.0 |
| | Chinese | 188 | 62.7 | 62.7 | 80.7 |
| | Indian | 55 | 18.3 | 18.3 | 99.0 |
| | Others | 3 | 1.0 | 1.0 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

Education

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|-----------|---------|---------------|-----------------------|
| Valid | SPM | 27 | 9.0 | 9.0 | 9.0 |
| | STPM | 41 | 13.7 | 13.7 | 22.7 |
| | Bachelor | 187 | 62.3 | 62.3 | 85.0 |
| | Master | 16 | 5.3 | 5.3 | 90.3 |
| | Doctorate | 7 | 2.3 | 2.3 | 92.7 |
| | Others | 22 | 7.3 | 7.3 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

Occupation

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------------|-----------|---------|---------------|-----------------------|
| Valid | Student | 143 | 47.7 | 47.7 | 47.7 |
| | Professional | 31 | 10.3 | 10.3 | 58.0 |
| | Executive | 38 | 12.7 | 12.7 | 70.7 |
| | Unemployed | 24 | 8.0 | 8.0 | 78.7 |
| | Self- employed | 19 | 6.3 | 6.3 | 85.0 |
| | Others | 45 | 15.0 | 15.0 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

Marital Status

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|---------|-----------|---------|---------------|-----------------------|
| Valid | Married | 75 | 25.0 | 25.0 | 25.0 |
| | Single | 223 | 75.0 | 75.0 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

Monthly Income

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|---------------|-----------|---------|---------------|-----------------------|
| Valid | <1000 | 136 | 45.3 | 45.3 | 45.3 |
| | 1,000 – 2,499 | 61 | 20.3 | 20.3 | 65.7 |
| | 2,500 – 3,999 | 43 | 14.3 | 14.3 | 80.0 |
| | >4000 | 60 | 20.0 | 20.0 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

Statistics

| | | GQ 1 | GQ 2 | GQ 3 | GQ 4 | GQ 5 | GQ 6 | GQ 7 |
|---|---------|------|------|------|------|------|------|------|
| N | Valid | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| | Missing | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

GQ 1

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|-----------------------|
| Valid | Yes | 269 | 89.7 | 89.7 | 89.7 |
| | No | 31 | 10.3 | 10.3 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

GQ 2

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|-----------------------|
| Valid | Yes | 209 | 69.7 | 69.7 | 69.7 |
| | No | 91 | 30.3 | 30.3 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

GQ3

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------|-----------|---------|---------------|-----------------------|
| Valid | - | 91 | 30.3 | 30.3 | 30.3 |
| | Weekly | 14 | 4.7 | 4.7 | 35.0 |
| | 2 Weeks | 17 | 5.7 | 5.7 | 40.7 |
| | Monthly | 45 | 15.0 | 15.0 | 55.7 |
| | 3 Months | 67 | 22.3 | 22.3 | 78.0 |
| | 6 Months | 66 | 22.0 | 22.0 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

GQ 4

| ï | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------|-----------|---------|---------------|-----------------------|
| Valid | Always | 148 | 49.3 | 49.3 | 49.3 |
| | Occasionally | 114 | 38.0 | 38.0 | 87.3 |
| | Rarely | 31 | 10.3 | 10.3 | 97.7 |
| | Never | 7 | 2.3 | 2.3 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

GQ 5

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------|-----------|-----------|----------------|-----------------------|
| | | Troquonoy | 1 0100111 | valia i oreent | 1 0100111 |
| Valid | Always | 55 | 18.3 | 18.3 | 18.3 |
| | Occasionally | 120 | 40.0 | 40.0 | 58.3 |
| | Rarely | 92 | 30.7 | 30.7 | 89.0 |
| | Never | 33 | 11.0 | 11.0 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

GQ6

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|---------------|-----------|---------|---------------|-----------------------|
| Valid | Market | 26 | 8.7 | 8.7 | 8.7 |
| | Supermarket | 117 | 39.0 | 39.0 | 47.7 |
| | Organic Shops | 94 | 31.3 | 31.3 | 79.0 |
| | Health Stores | 50 | 16.7 | 16.7 | 95.7 |
| | Others | 13 | 4.3 | 4.3 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

GQ 7

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|---------------|-----------|---------|---------------|-----------------------|
| Valid | Vegetables | 111 | 37.0 | 37.0 | 37.0 |
| | Fruits | 72 | 24.0 | 24.0 | 61.0 |
| | Meats | 12 | 4.0 | 4.0 | 65.0 |
| | Body Products | 105 | 35.0 | 35.0 | 100.0 |
| | Total | 300 | 100.0 | 100.0 | |

Availability

Reliability Statistics

| Cronbach's | |
|------------|------------|
| Alpha | N of Items |
| .743 | 5 |

Environmental Concerns

Reliability Statistics

| Cronbach's | |
|------------|------------|
| Alpha | N of Items |
| .812 | 8 |

Health Concerns

Reliability Statistics

| Cronbach's | |
|------------|------------|
| Alpha | N of Items |
| .855 | 10 |

Perceived Value

Reliability Statistics

| Cronbach's | | | |
|------------|------------|--|--|
| Alpha | N of Items | | |
| .850 | 3 | | |

Consumer Attitudes

Reliability Statistics

| Cronbach's | |
|------------|------------|
| Alpha | N of Items |
| .819 | 7 |

Purchase Intention

Reliability Statistics

| Cronbach's | |
|------------|------------|
| Alpha | N of Items |
| .780 | 8 |

<u>Table 4.9: Summary of Multiple Regression Analysis</u>
<u>Table 4.9(a)</u>

Model Summary

| | | | Adjusted R | Std. Error of the |
|-------|-------------------|----------|------------|-------------------|
| Model | R | R Square | Square | Estimate |
| 1 | .665 ^a | .443 | .435 | .3495270 |

a. Predictors: (Constant), Health Concerns, Availability, Environmental Concerns, Perceived Value

Table 4.9(b)

$\mathsf{ANOVA}^\mathsf{b}$

| Mode | el | Sum of Squares | df | Mean Square | F | Sig. |
|------|------------|----------------|-----|-------------|--------|-------|
| 1 | Regression | 28.606 | 4 | 7.151 | 58.537 | .000ª |
| | Residual | 36.040 | 295 | .122 | | |
| | Total | 64.646 | 299 | | | |

a. Predictors: (Constant), Health Concerns, Availability, Environmental Concerns, Perceived Value

b. Dependent Variable: Attitudes

Table 4.9(c)

Coefficients^a

| Model | | Unstandardize B | ed Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. |
|-------|-------------------------|--------------------|----------------------------|--------------------------------|-------|------|
| 1 | (Constant) | 1.539 | .170 | | 9.061 | .000 |
| | Availability | .335 | .051 | .383 | 6.620 | .000 |
| | Environment al Concerns | .168 | .043 | .217 | 3.877 | .000 |
| | Perceived Value | .092 | .039 | .155 | 2.360 | .019 |
| | Health Concerns | .062 | .028 | .067 | 1.957 | .001 |

a. Dependent Variable: Attitudes

<u>Table 4.10: Summary of Simple Regression Analysis</u>
<u>Table 4.10(a)</u>

Model Summary

| | | | Adjusted R | Std. Error of the |
|-------|-------------------|----------|------------|-------------------|
| Model | R | R Square | Square | Estimate |
| 1 | .590 ^a | .348 | .346 | .399985 |

a. Predictors: (Constant), Attitudes

Table 4.10(b)

$ANOVA^b$

| Ν | lodel | Sum of Squares | df | Mean Square | F | Sig. |
|---|------------|----------------|-----|-------------|---------|-------------------|
| 1 | Regression | 25.447 | 1 | 25.447 | 159.057 | .000 ^a |
| | Residual | 47.676 | 298 | .160 | | |
| | Total | 73.124 | 299 | | | |

a. Predictors: (Constant), Attitudes

b. Dependent Variable: Purchase Intention

Table 4.10(c)

Coefficients^a

| | | Unstandardize | ed Coefficients | Standardized Coefficients | | |
|-------|------------|---------------|-----------------|------------------------------|--------|------|
| Model | | В | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | 1.304 | .191 | | 6.828 | .000 |
| | Attitudes | .627 | .050 | .590 | 12.612 | .000 |

a. Dependent Variable: Purchase Intention

<u>Table 4.11: Summary of Mediation Analysis</u> <u>Table 4.11(a)</u>

Coefficients^a

| | | Unstandardize | ed Coefficients | Standardized Coefficients | | |
|-------|--------------|---------------|-----------------|------------------------------|--------|------|
| Model | | В | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | 1.955 | .145 | | 13.454 | .000 |
| | Availability | .524 | .041 | .599 | 12.918 | .000 |

a. Dependent Variable: Attitudes

Table 4.11(b)

Coefficients^a

| | | Unstandardize | ed Coefficients | Standardized Coefficients | | |
|-------|--------------|---------------|-----------------|------------------------------|-------|------|
| Model | | В | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | .932 | .179 | | 5.205 | .000 |
| | Availability | .399 | .049 | .429 | 8.098 | .000 |
| | Attitudes | .354 | .056 | .333 | 6.286 | .000 |

a. Dependent Variable: Purchase Intention

Table 4.11(c)

Coefficients^a

| | | Unstandardize | ed Coefficients | Standardized Coefficients | | |
|-------|--------------|---------------|-----------------|------------------------------|--------|------|
| Model | | В | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | 1.625 | .150 | | 10.821 | .000 |
| | Availability | .584 | .042 | .628 | 13.944 | .000 |

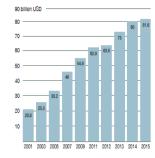
a. Dependent Variable: Purchase Intention

Table 4.11(d)
Sobel's z-test

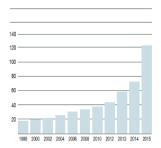
| Input: | | Test statistic: | <i>p</i> -value: |
|-----------------------|---------------|-----------------|------------------|
| t _a 12.918 | Sobel test: | 5.65232192 | 2e-8 |
| t _b 6.286 | Aroian test: | 5.63867808 | 2e-8 |
| | Goodman test: | 5.66606528 | 1e-8 |
| | Reset all | Calc | ulate |

Appendix C Global Organic Product Consumption Data

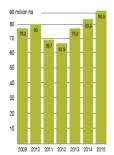
Organic Market Size in USD



Number of Participatory Guarantee System Initiatives



Organic Agricultural Land and Wild Collection Areas in mn ha



| NDICATOR | GLOBAL TOTALS | LEADING COUNTRIES |
|--|---|---|
| Countries with data on certified rganic agriculture | 2015: 179 Countries | New countries: Dunei Darussalam, Cape Verde, Hong Kong, Monaco, Sierra Leone, Somalia |
| Organic agricultural land | 2015: 50.9 mn ha (1999: 11 mn ha) | Australia (22.7 mn ha), Argentina (2.1 mn ha), USA (2 mn. ha) |
| Organic share of total agricultural land | 2015: 1.1% | Liechtenstein (30,2 %), Austria (21.3 %), Sweden (16.9%) |
| Wild collection and further, non-agricultural areas | 2015: 39.7 mn ha (1999: 4.1 mn ha) | Finland (12.2 mn ha), Zambia (6.6 mn ha), India (3.7 mn ha) |
| Producers | 2015: 2.4 mn producers (1999: 200,000 producers) | India (585,200), Ethiopia (203,602), Mexico (200,039) |
| Organic market size | 2015: 81.6 bn USD (1999: 15.2 bn USD) | USA (39.7 bn USD; 35.8 bn EUR), Germany (9.5 bn USD; 8.6 bn EUR), France (6.1 bn USD; 5.5 bn EUR) |
| Per capita consumption | 2015: 11.1 USD (10.3 EUR) (1999: 2.5 USD) | Switzerland (291 USD; 262 EUR), Denmark (212 USD; 191 EUR), Sweden (196 USD; 177 EUR) |
| Number of countries with organic regulations | 2015: 87 countries | |
| Affiliates of IFOAM - Organics International | 2016: 833 affiliates from 121 countries | Germany: 91 affiliates, India: 73 affiliates, China: 55 affiliates, USA: 49 affiliates |

Source: FiBL survey 2017, based on the national data sources and data from certifiers Global market: Organic Monitor 2016

*Note: Statistical data as of December 2015.

Source: IFOAM Annual Report 2016

Appendix D Current Population Estimates, Malaysia, 2014 - 2016



DEPARTMENT OF STATISTICS MALAYSIA

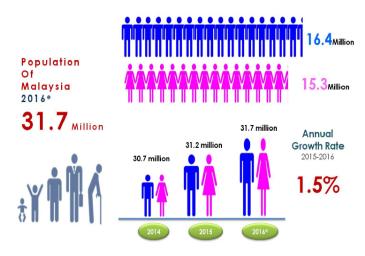


PRESS RELEASE CURRENT POPULATION ESTIMATES, MALAYSIA, 2014-2016

POPULATION SIZE AND GROWTH

In 2016, total population of Malaysia is estimated at 31.7 million persons, an increase of 0.5 million persons as compared to 31.2 million persons in 2015 with 1.5 per cent population growth rate for the same period.

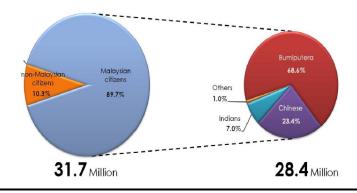
POPULATION OF MALAYSIA 2014-2016



ETHNIC COMPOSITION

Among Malaysian citizens, ethnic Bumiputera recorded the highest percentage with 68.6 per cent, followed by Chinese (23.4 %), Indians (7.0 %) and Others (1.0 %). The percentage of non-Malaysian citizen in 2016 was at 10.3 per cent out of total population in Malaysia.

POPULATION DISTRIBUTION BY ETHNIC GROUP, MALAYSIA, 2016



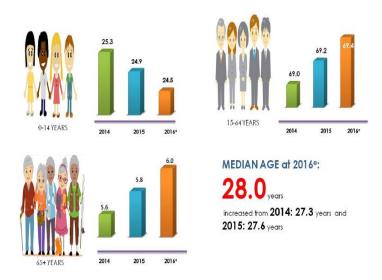
Source: Department of Statistics Malaysia (DOSM)

AGE STRUCTURE

Distribution of population by age groups in 2016 showed no major difference as compared with the year 2015. Population in group 0-14 years old decreased 0.4 percentage point at 2016 (24.5%) as compared to 2015 (24.9%).

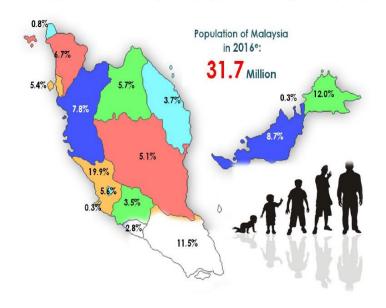
Working age population, 15-64 years old, increased by 0.2 percentage point at 2016 as compared to 2015. Subsequently, population aged 65 years and above was also increased by 0.2 percentage points at the same period.

POPULATION COMPOSITION BY AGE GROUP AND MEDIAN AGE, MALAYSIA, 2014-2016



POPULATION DISTRIBUTION BY STATE, MALAYSIA, 2016 $^{\rm e}$

Selangor recorded the highest percentage of population in 2016 (19.9%) followed by Sabah (12.0%) and Johor (11.5%). While W.P. Labuan and W.P. Putrajaya recorded the smallest percentage of population with 0.3 per cent respectively.



Source: Department of Statistics Malaysia (DOSM)