NON-PRICE DETERMINANT ON INTENTION TO PURCHASE OF ORGANIC FOODS IN STATE OF KEDAH, MALAYSIA

By

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ABSTRACT

Organic food is becoming popular among todays' millennial consumers as consumer awareness towards healthy lifestyle had increased. Scholars and practitioners had put much consideration in understanding what drive consumers' attitude and behavior towards organic food mainly to strengthen their strategies and tactics to dominate the market. As past literatures consistently highlighted that organic food enjoyed slightly higher price, this study attempts to examine the influence of non-price determinants on intention to purchase organic food. The study among 117 respondents in state of Kedah, Malaysia revealed that environmental concern has a significant relationship with intention to purchase organic food. Another two determinants namely, product knowledge and attitude towards organic food found insignificant in influencing intention to purchase organic food. As a result, practitioners are urged to aggressively promote the benefits of organic food among public mainly to enhance their attitude towards organic food. Future study should focus in a larger sample as well as consider other non-price determinants on intention of purchase organic food.

Keywords: intention to purchase, product knowledge, attitude towards environment, attitude towards organics food.

ABSTRAK

Makanan organik telah menjadi popular di kalangan pengguna milenial dewasa, ini disebabkan peningkatan kesedaran terhadap gaya hidup yang sihat. Para cendiakawan dan pengamal-pengamal industri telah memberi penekanan yang mendalam dalam memahami apakah pendorong kepada sikap dan gelagat pengguna-pengguna terhadap makanan organik bagi mengukuhkan strategi dan taktik masing-masing untuk menguasai pasaran. Memandangkan kajian lampau secara konsisten menekankan bahawa makanan organik dijual pada harga yang lebih tinggi, kajian ini cuba untuk memeriksa pempengaruh penentu bukan harga ke atas niat untuk membeli makanan oganik. Penyelidikan di kalangan 117 responden dari negeri Kedah, Malaysia mendedahkan bahawa kepekaan kepada persekitaran mempunyai perhubungan yang signifikan ke atas niat untuk membeli makanan organic. Dua lagi penentu bukan harga iaitu, pengetahuan terhadap produk dan sikap ke atas makanan organik didapati tidak signifikan ke atas niat untuk membeli makanan organik. Sehubungan dengan itu, para pengamal industri didesak untuk mempromosikan manfaat makanan organic secara agresif kepada orang awam khusus untuk meningkatkan sikap mereka terhadap makanan organik. Kajian masa hadapan seharusnya memberi focus kepada sampel yang lebih besar di samping mengambilkira penentu-penentu bukan harga yang lain ke atas niat membeli makanan organik.

Kata Kunci: niat untuk membeli, pengetahuan ke atas produk, kepekaan ke atas alam sekitar, sikap ke atas makanan organik.

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CHAPTER ONE

RESEARCH OVERVIEW

1.0 Introduction

The realized of consumers' concern regarding the chemical substance uses in agriculture sector were started since year 1965 (Bealer & Willits, 1968). Almost all marketed food planted by farmers and plantation during that time was adopted progressive methods of chemical farming. The usage of pesticide had changed the agricultural landscape that becomes more concentrated, specialized and capitalized (Sachs & Higdon, 1987), and it is observed to continue till today. The main reason of chemical uses is to control better yield in output for the farming and plantation in making better commercial gains mainly to maximize the profit.

However, the chemical products that are being used in agriculture sector such as pesticides, Dichlorodiphenyltrichloroethane (DDT) and urea that were being complained by scientist and philosophers today (Essays, UK, 2013). It is resisted and bad for the environment and harmful to the human body. As a result, governments in many countries were starting to either curtail or restriction in vector control for agriculture for the usage of DDT (Chapin & Wasserstrom , 1981). The concern of illegal diversion in usage for agriculture as it almost not possible to prevent it from happening and its following the continuing use of the crops is impossible to control. For example, DDT use is widespread in Indian agriculture (Jayashree, 2009) that mentioned the pesticide residues remain in vegetables and fruits was over the maximum permissible levels (MPL), happened to the vegetables from area of Uttar Pradesh, India. Besides, massive

farming is a risk for happen fertilizer leak into crop's steams. The use of pesticide also harms the farm workers, as well as environment, thus later affect the society at large. These problems, make conventional agriculture potentially unsustainable and unhealthful, and they gleam, organic methods might seem healthier for people and for the environment (Dixon, 2004).

Alternatively, organic foods, farming without using chemical fertilizer, proponents claim that organic foods are healthier, safe to eat and contains more nutritious if compare with non-organic food that's been planted and grown with pesticides, fertilizer and antibiotics. As highlighted by numerous researchers, purchasing organic products is perceived as healthier than non-organic food alternatives (Chinnici, D'Amico, & Pecorino, 2002; Harper & Makatouni, 2002).

Today, the demand for organic food around the world is keep on increasing as a result of more responsible and concerned society. The organic foods are recognized to be beneficial to human health. The term 'organic foods' is refer to consideration of the farming method, targeted to be very minimum or not in using modern synthetic pesticides and chemical fertilizers, besides, the organic food shall processed without the input of irradiation or chemical food additives.

Malaysia has started the organic farming and in the end of 1980s. The activity was first started by private sector and Non-Government Organization that later gained full support from the government. A part of the government initiative, The Malaysia Organic Scheme was launched to encourage the development of this sector (Department of Agriculture, Malaysia, 2013). Today, many countries had implemented stringent rules

and regulations for organic food producers to sell their organic food in the international market. Producers need to comply with the organic food standards that fixed by either local governments or international assigned organizations. Malaysia as a key player for organic foods had grasped this golden opportunity by setting up a proper plantation site that complies with international standards.

Malaysia Organic Scheme or Skim Organik Malaysia (SOM), the standard of Organic Agriculture was introduced by Malaysia government to have specific control of making organic foods from the beginning, according to the Malaysian Standard MS 1529:2001 that mentioned "to control the production, processing, labeling and marketing of plant based organically produced foods. In addition, the SOM Standard also encompasses rules or criteria which are derived from specific legal provisions of national laws to control hazards that impact the environment, food safety and workers' health and safety."

As Malaysia government had taken serious action and investment to commercialize organic foods and decide to conquer the international market, it is equally important to examine how consumers' attitude and behavior towards organic foods. Hence, this study attempts to examine main predictors that affect consumers' intention to purchase organic foods.

1.1 Background of The Study

The foods in the world were originally organic, although there was some record of soil fertility management thousand years ago was found and has been gone through preoccupation by the farmers. The ancient Egyptians, early Germans, Romans and

Babylonians and were recorded as using the minerals or manure with the intention to improve their productivity of farms, but still not synthetic fertilizer and chemical substances that impact to the environment was used.

Continues from the Industrial Revolution, the plant nutrition started was started introduced to market in the 19th century in effort of work by German chemist to lead by Justus von Liebig. An English entrepreneur, Mr. John Bennet Lawes began to experiment in 1837, after one or two years' time, Mr. John expended the experiments in a the field that directly to crops, treating by using phosphates with sulfuric acid in manure formed were later patented by him in 1842, this is a starting point of chemical fertilizer been introduced and non-organic food was invented and introduce to the world.

Fertilizer leaks into steams and encourage the growth of algae that clog stems. Pesticides are toxic to workers; they also get into water supplies, enter the food chain, and become incorporated into human tissue. These problems, make conventional agriculture potentially unsustainable and unhealthful, and they gleam, organic methods might seem healthier for people and for the environment' (Dixon, 2004)**.** the realized of environmental impact and healthy food awareness since 1965 makes the name and demand of organic foods growth from year to years.

Organic foods, farming has been practiced by traditional farmers, according to Brian (2005), "traditional methods rather than adopt progressive methods of chemical farming. Despite some economic disadvantages, a number of these traditional farmers remained

competitive". The use of just one kind of crop, and reduces biodiversity. Massive farming also uses up the soil of nutrients and harms the environment.

The organic food demand still in low percentage compares with total foods consumed in Europe and Northern America. For instance, the Research Institute of Organic Agriculture (FiBL) reported among the top domestic market worldwide, only Japan as a country in Asia listed in world top ten in 2009 and no other report studied for recent data, this is summarized as in Figure 1.1

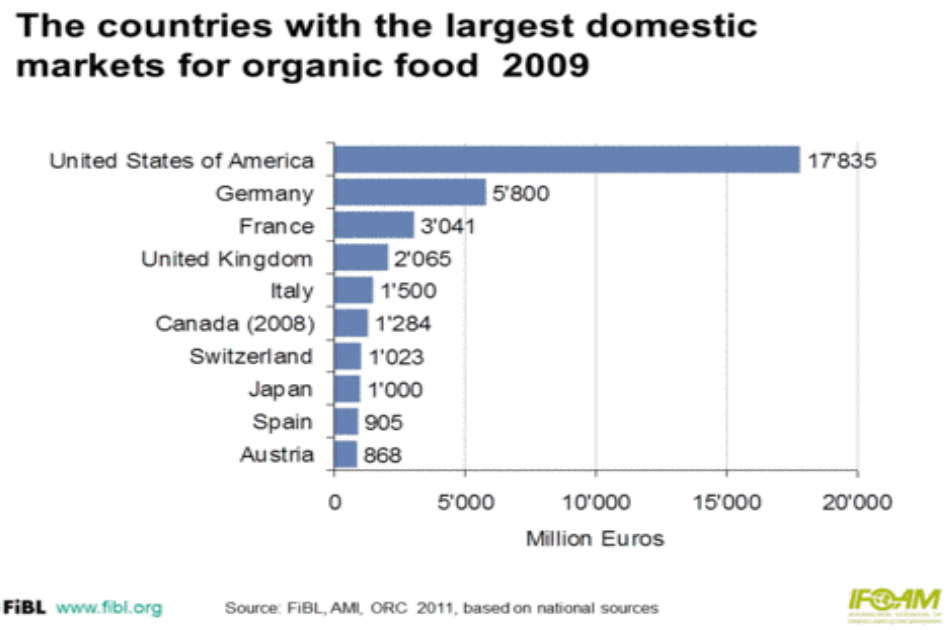


Figure 1.1
The countries with the largest domestic markets for organic food
Source : Research Institute of Organic Agriculture (FiBL), book year 2011

In addition, according to Euromonitor International, North America and Western Europe recorded as the highest most demand for organic foods. The following Figure 1.2 show the comparison market growth by year among different continents in the world.

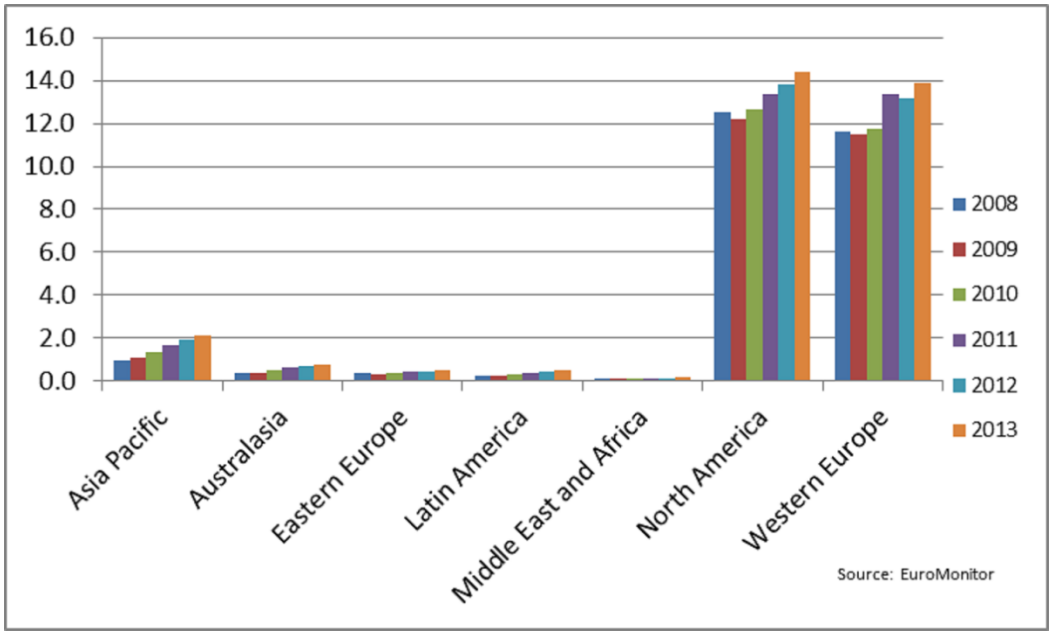


Figure 1.2
Comparison market growth by year by Euromonitor
Source: Smallcaptraders 2014

In Malaysia, organic plantation firms were established in the area for decades ago. Organic food manufacturer examples DXN Pharmaceutical, Gano Excel Enterprise, Jin Teik Organic Marketing Sdn. Bhd, MK Orchard and Agro Bio-Future Sdn. Bhd. are located in Kedah. This was proved the land is suitable in growing the organic plants, thus reducing the dependency of specific plantation areas such as Cameron Highland. Moreover, organic is considered back to nature and environmentally friendly practice should suitably unless area with very bad climate. The well-known organic plantation area Cameron Highland is largest and able to supply the organic and conventional vegetables surrounding Malaysia and as far as until Singapore. Due to too high demand

depending on the area, massive land clearing has continued unabated almost all the involved villages start from an area called Ringlet until Blue Valley through Bertam Valley and Kampung Raja in Cameron Highland to cope the demand (Berita Harian, 2013). This was heavily destroyed the environment and finally, the area was experiencing an ecological catastrophe in November 2014. Before that, the area already affected by several landslides and floods as sign of the ecological warning (The Malay Mail, 2014). In addition, the news also reported the Bertam River overflowed was happening earlier after water was released from the Sultan Abu Bakar Hydroelectric Dam with result of four died, while over 100 lost their homes in that incident.

Introduce new area for farming to continue supply the organic foods is the way out from the continues destroying the environment in Cameron Highland, the plantation or organic farming shall able to make locally and sell the vegetable with lower transportation cost toward lower price supplies to the community, For Kedah, the land suitable for plantation and state government also encouraging the involvement of organic producers.

Kedah states's Menteri Besar, Datuk Seri Mukhriz Mahathir was chaired the launch of Kedah Agro's organic brand of fruits and vegetables at 21 April 2014. Kedah Agro a government-linked company under the state government also partnered by MK Orchard Sdn. Bhd. to spearhead and anchor the realization of Kedah Organics. During the speech, he had published the Kedah State Government's perspective to encourage the local farmer to grow organic produces. According to The Star News (2014), Datuk Seri Mukhriz Mahathir also mentioned the vital to understanding how the food ecosystem functioned to meet the growing need for stable and sustainable food supplies, with the

rise of consumer health awareness, growing concerns about food quality, the excessive use of pesticides and chemicals in crops, organic food has become a buzz-word with people and farmers alike.

In addition, Datuk Seri Mukhriz Mahathir was initiated in the media that the organic produce planned for domestic uses and no plan for export at this moment, meaning the supply is for the local community, he also advised the local farmers, especially Kedahans, to plant fruits and vegetables organically as they were in demand for such products, the significant support from state government to encourage the local community to make diversification to organic agricultures will make more supplies of organic products in Kedah.

1.2 Problem Statement

Organic foods refers to as foods with environmentally safe to consume, being produced by using the environmental-friendly methods that didn't involve any modern chemical or synthetic inputs such as chemical fertilizers and pesticides. The genetically modified organisms also not consider to use as ‘contain’, it shall not processed through additional treatment by using industrial solvents or chemical food additives or irradiation. Consumer decision to adopt either organic with non-organic foods, mainly justified with health concerns. As Organic foods is perceived as a safe and healthy food with organic farming and practices are perceived to be maintaining the best environment, as highlighted by researcher, “consumer perceives organic foods as healthier, are more

likely to purchase organic food, and they have a higher willingness to pay than other households" (Andersen, 2007).

Datuk Seri Mukhriz Mahathir was highlighted organic produces' price will be higher. "Compared to non-organic, these organically produced fruits and vegetables are more expensive by about 20% to 25% as there is no pesticide usage in them." (Utusan 2014). Therefore, the higher price's factor is known it's a reality that unable to change, in everywhere in the world the organic produces will cost higher than non-organic.

Organic foods could consider as a premium and/or differentiated product, thus deemed a higher price. This study focuses on non-price determinants as the price could be a major critical decision for consumers intention to purchase pricy products such as organic foods. Moreover, as cited by Attanasio, Carelli, Cappelli and Papetti (2013) indicated that one major factor that considered to be the barrier to organic food consumption is its price. Hence, to reduce the response biases, price determinant is excluded in this study.

Consumers awareness towards organic food relatively low in Malaysia as compared to developed countries. Review of the literature also revealed that the main issues pertaining consumers' consumption of organic foods due to low awareness towards organic foods. Consumers need to have adequate knowledge of product to satisfy their needs and wants. Product knowledge, e.i. organic foods in this study, is an important predictor that can influence consumer consumption in which knowledge is a cognitive learning (Sapp, 1991). Consumer purchase intention would be different if the consumer has the distinction level of organic foods knowledge (Chiou, 1998). In this regards,

Effendi, Ginting, Lubis and Fachruddin (2015) pointed out that there are gaps in previous literature whereby product knowledge, especially organic food is seemed to be ignored and not simultaneously tested to understand consumers' attitude and behavior towards organic food. Hence, this study attempts to bridge the gaps by examining the effect of product knowledge on intention to purchase organic foods.

Davies, Titterington and Clive Cochrane (1995), Grunert and Juhl (1995), Tarkiainen and Sundqvist (2005), Tanner and Kast (2003), Lockie, Lyons, Lawrence and Grice (2004); Rimal, Fletcher, McWatters, Misra and Deodhar (2001) and Rimal, Moon & Balasubramanian (2005) mentioned in the area of organic food consumption, the spotlight has generally been on the predictability between favorable attitudes and behavior. While many studies found a correlation between respective attitudinal dimension and behavior for green or organic consumption, there are still inconsistent results. Moreover, a growing number of studies have stressed that buying intention and behavior of organic products is related to attitudes (Tarkiainen at el., 2005; Chen, 2007; Grunert & Juhl, 1995; Rimal et al., 2001; Lockie et al., 2004; Padel & Foster, 2005; Rimal et al. 2005). While organic-product consumer is generally classified as a 'concerned consumer' sensitive to moral and health issues (Weatherell, Tregear & Allinson, 2003). Therefore, this study attempts to examine the attitude of the consumers toward intention to purchase the organic foods. Known as healthier food, attitude of people in the modern world today shall increase of awareness of the importance to the healthy lifestyle with consuming healthy foods that's been known that contains no chemicals that not good for our bodies (Shaharudin, Pani, Mansor & Elias, 2010).

One common explanation for the inconsistency is that there is social desirability involved in ethics-related themes, and people feel compelled to give responses conforming to the rules of ethics. In studying consumers' attitudes toward organic food and their buying behavior, the themes involved include ethics, the environment, and personal health issues", stressed by Makatouni, (2002); Torjusen, Lieblein, Wandel and Francis (2001). The issue of attitudinal inconsistency and interaction, in this sense, deserves more consideration. Ajzen (2001) proposed the possibility of a co-existence of opposite attitude dispositions, referred to as attitudinal ambivalence. The researcher concluded that even through same concept in the same context, people will hold different attitudes result.

Much studies in green consumerism had shed the light that the main driver for such consumption is due to their concern about the environment and pollution issues. In line with the statement, another force for organic foods selection is the awareness of the user for their environment. For instance, the studies by Irianto (2015), Nguyen (2011), Yin, Wu and Chan (2010) and Ahmad and Juhdi (2008) consistently highlighted that attitude toward environment plays a significant role in explaining intention to purchase organic foods. Again, Effendi et al. (2015) argued that it is not simultaneously tested towards product knowledge in understanding intention to purchase organic food. Hence, this study attempts to examine the effect of environmental concern on intention to purchase organic foods.

To estimate the success of program that promoted by The State Government, this study attempt to investigate on the consumers' perception of intention to purchase organic foods. This study tries to simultaneously test whether knowledge in the organic foods,

consumers' attitude towards organics food and environmental concern has a significant relationship on consumers' purchase intention toward organic foods.

1.3 Research Objective

Based on the preceding discussion on research gaps, this study hopes to achieve three (3) objectives as follow:

(i) To examine the relationship between product knowledge and intention to purchase of organic foods.

(ii) To examine the relationship between consumers' attitude towards organic foods and intention to purchase of organic foods.

(iii) To investigate the relationship between environmental concern and intention to purchase of organic foods.

1.4 Research Questions

This intention of this research was conducted to identify the relationship of non-price determinant toward purchase intention of organic foods, which, among people in Kedah. The research questions are as follows:

1. Does product knowledge of organic foods have a significant relationship with intention to purchase the organic foods?

2. Does attitude toward organic foods have a significant relationship with intention to purchase the organic foods?

3. Does environmental concern have a significant relationship with intention to purchase the organic foods?

1.5 Significant of the Study

This study hopes to extend the boundary of knowledge of what are possible non-price determinants that could lead to customers' intention to purchase organic foods. As previous studies consistently highlighted that price could be a major barrier for organic foods adoption, this study attempts to shift the focus on non-price determinants. Hence, product knowledge, the consumers' attitude and environmental concern put forward to understand the consumers' intention to purchase organic foods specifically in Kedah.

This study also hopes to provide a valuable information for practitioners in understand what would be the most influential factors in determining consumers' intention to purchase organic foods. The understanding of such factors could help practitioners in formulating their strategies in improving consumers' adoption of organic foods. For instance, if the study indicates that product knowledge was the most influential predictors, hence, practitioners need to aggressively promote their organic foods and improve the distribution strategy mainly to boost the demand.

1.6 Limitation of the study

This study specifically focuses on consumers in the northern region, namely, Kedah. Hence, the result only applicable to this specific region and perhaps could not be used to generalized to overall consumers' attitude and behavior towards organic foods in the broader context of Malaysia. More importantly, this study only focused on non-price determinants. Based on reviews of literatures, only three independent variables were observed, namely; product knowledge, attitude towards organic foods and environmental concern. Hence, the discussion would limit in these predictors only.

1.7 Definition and Key Term

1.7.1 Organic Foods

Organic foods are the foods that produced by using organic farming methods. Currently, in term to market the organic foods to countries as Mexico, Canada, Japan, European Union, USA, and many other countries require the exporter to have the organic certification first in order to securely market their foods as an organic product to cross their borders. In the context of regulations, organic foods are food produced in a way that complies with the organic standards set by national governments and international organizations. Organic foods production is a heavily regulated requirement industry.

In general, organic foods come from organic farming, the site-specific of organic farming and crop conditions by implementing the aspect of cultural and natural biological principal, recycling of used resources, this is able to maintain ecological

balance. However, with unavoidable reason to approve the pesticides to be used under controlled conditions although certain organically allowance. Besides, synthetic additives in food , industrial solvent and irradiation are disallowed.

1.7.2 Knowledge of Organic Foods

Knowledge is a familiarity, awareness or understanding of something, such as facts, descriptions, information or skills, which is acquired through empirical experience or education by perceiving, discovering or learning. Knowledge can refer to a theoretical or practical understanding of a subject. It can be implicit or explicit. It can be more or less formal or systematic. In philosophy, the study of knowledge is called epistemology; the philosopher Plato famously defined knowledge as "justified true belief", though "well-justified true belief" is more complete as it accounts for the problems.

Knowledge about organic foods is how far an individual knows about the benefit of organic foods, the requirement of foods to be called organic, the farming, plantation and processing requirement including standard and regulations.

Benefit of organic foods are such as environmental friendly, healthier or more nutritious foods, clean and promote out ecological balance, Including the ability to differentiate the organic and non-organic as organic foods shall supplies from farming requirement that no pesticides in production, no genetically modified organism of seed, grown with compost or manure as known as natural fertilizers, to control the grow of weeds, farmer used the naturally method to control, for insects, the natural control like birds and trap

etc. were been used. The conventionally grown crop or were used chemical fertilizers, pesticides, foods also grown with synthetic method, chemical herbicides used to control the weeds and pest controller to control the insecticides.

As the process of organic foods was controlled to not proceed with chemical additives, industrial solvent or irradiation, Certificate issued by certification bodies is the recognize to be liable as process organic products as a consumer also been assured that the "organic" declaration is reliable and compliance with all require handling and production requirement were controlled, normally country has own certification authorization firm either by government or handle by private. Current well know certification body such as United States Department of Agriculture (USDA) , Ecocert Group, BIOHellas etc. that work internationally.

1.7.3 Attitude towards Organic Foods

Attitude is a tendency or a predisposition, either positively or negatively respond to any idea, situation, information or to person. It’s able to influence a person to called stimuli of decision proceed any action, respond to any idea, situation, challenges, condition, incentives and rewards.

According to Wood (2000) In social psychology, attitude is an evaluation of an attitude that to vary from extremely negative to extremely positive, but also admits some individual can also be conflicted or ambivalent toward an object meaning that the person

might at different times express both positive and negative attitude toward the same object.

“Attitude can be as a positive or negative evaluation of individual, an objects, an events, an activities and ideas. It could be concrete, abstract or just about anything related to environment; an attitude may influence the attention to something, the use of categories for encoding information and the interpretation, judgment and recall of attitude-relevant information. These influences tend to be more powerful for strong attitudes which are easily accessible and based an elaborate knowledge structure. Attitudes may guide attention and encoding automatically, even if the individual is pursing unrelated goals.” All of this paragraph was referred to Vogel, Bohner and Wanke (2014)

Attitude toward organic food may divide into two categories, positive and negative. Individual with positive attitude usually wants to buy organic foods, refer the organic foods, even the price is higher than conventional foods, not prefer any chemical pesticides when growing the food and not agree for genetic modified organisms (GMO), people will believe in physic, feeling and health will be better when eating organic foods and concern for the environment.

Individual with negative attitude usually has no buy organic foods, shall reverse attitude with the positive, not or less believe in feeling and health will be better when eating organic foods.

1.7.4 Environmental Concern

A good environment can give a definition as natural ecosystem or a world in favorite condition, surrounding in good influences and interest. Environment in this study is more toward offer to maintain the natural environment, Climate, weather and all living species' interaction. Which affects of living human and ongoing economic activities. (Johnson, Ambrose, Bassett, Bowen, Crummey, Isaacson, Johnson, Lamb, Saul & Winter-Nelson, 1997). Components can be distinguished the natural environment concept.

An ecosystem as also been called as the environment, it means that the original function in natural without massive civilized human intervention as complete ecological, this including all living microorganisms, vegetation, natural phenomena, condition of land or soil, sea and atmosphere.

Now, finding a natural environments is absolutely difficult due to continues to damage by growth of industries, Therefore, activities to recover the ecology system from continuing damage was established by bodies that concern to the environment's and future, organic foods is actually supporting the recovery of the ecological system. Besides, programs such as reduction and control of pollution, toxicant and waste, generate energy by using non-recyclable materials through conversion, source of new renewable energy, alternative green concept development, invention of low-carbon products, Land, air and water such as scarce resources that develop a conversion to ensure sustainability, also implement the law for the ecosystem's protection.

1.8 Organization of Study

This research contain of five chapters. Chapter One(1) comprises of the background of the study as an introduction, the problem statement, research objectives, research questions and definition of key term.

Chapter Two (2) reviews the research finding and literature review on the variables of the study and also the relationship between those variables done by other researchers.

Chapter Three (3) presents the method of study. It discuss on the research design and procedure undertaken for the study. The chapter mentions the selection of the respondents and sample size, the construction and development of the questionnaires of the research and data collection method and techniques to analysis the data.

Chapter Four (4) is summarizing the analyzed result that obtained from the survey conducted. By analyzing the data collected, it is possible to present the findings of the research. This chapter intends to verify the hypotheses that developed.

Chapter Five (5) is summarizing the total research and discuss, it's content an Introduction, recapitalization of findings, discussion of the findings, discussion of the research objective, the implication of the Study, practical contribution, limitation of the study, recommendation of future research and conclusion.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

In this chapter, the function of the literature review is to justify the choice of the research question, theoretical framework, and method, to provide background information which importance to project with the global research that already exists; to show to the reader with significant and research relevant to the topic. The objective of the literature review is to determine the key concepts and critical assessment of the related research relevant to the research.

2.1 Research of Purchase Intention of Organic Food in Kedah

Previous research by Rizaimy, Pani, Mansor and Elias (2010) with entitled "*Factors affecting purchase intention of organic food in Malaysia's Kedah state*" was used religious factor, food safety, perceived value and health consciousness as independent variables. However, the discussion was scoped to Malaysia but research sample was concentrated in Kedah. The religious factor only specific in Muslim consumers that cannot accurately represent the result of religious factor of population in Kedah or Malaysia. Therefore, this research with different variables may improve the result to represent different opinion of the study, the variables of knowledge, attitude and environment factor was widely researched in purchase intention toward organic food but no published research was found in the study of the variables in Kedah, Malaysia.

2.2 Purchase Intention toward Organic Foods

“There are number of reasons that consumer choose to purchase organic foods, as well as some barriers. Reasons of buying could be grouped according to general and commodity-specific concerns. Example of concern includes food safety, human health, environmental impact, whereas commodity attributes included taste, freshness and packaging” (Yiridoe, Bonti-Ankomah & Martin, 2005).

While Davies et al. (1995) “mentioned the people who purchase organic food have been classified into four groups namely 1) greens; people who are concerned with the environment 2) food phobic; those who concerned about chemical residues in food 3) humanists; people who are preoccupied with factory farming methods and 4) hedonists; people who believe that a premium products must be better and importantly taste better”.

Some researcher used the term as willing to pay besides purchase intention, although can differentiate the meaning, but the reaction is similar, both mean the purchase the organic foods, In the international literature related to “the research regarding consumers’ willingness to pay for environmental friendliness and/or quality/safety in food production” (Harris, Burress & Eicher, 2000; Goldman & Clansy, 1991; Lea & Worsley, 2005).

2.2.1 The Theory of Planned Behavior

The Theory of Planned Behavior (TPB) was started from the Theory of Reasoned Action in (1980), this is to predict or estimate an individual from performing the action in a

behavior depend on time and place. "This to explain behaviors over which people have the ability to perform exert self-control. The key component of this model is behavioral intent; behavioral intentions are influenced by the attitude about the likelihood that the behavior will have the expected outcome and the subjective evaluation of the risks and benefits of that outcome." (Boston University, 2013).

2.2.2 The Theory of Reasoned Action

"The theory of reasoned action is a model for the prediction of behavioral intention, it's spanning predictions from attitude and predictions of behavior. The subsequent separation of behavioral intention from behavior allows for explanation of limiting factors on attitudinal influence" (Ajzen, 1980). "The Theory of Reasoned Action was developed by Martin Fishbein and Ajzen (1975, 1980), derived from previous research that started out as the theory of attitude, which led to the study of attitude and behavior". "The theory was born largely out of frustration with traditional attitude–behavior research, much of which found weak correlations between attitude measures and performance of volitional behaviors" (Hale, Householder & Greene, 2002).

2.3 Variable Related for Study

2.3.1 Environment Concern

2.3.1.1 Defining of Environment Concern

As referring the threat to environment with continuous overuse with a damaging intention toward the natural resources, result the unfortunate efforts to permanently and environmental damage through interventions has always happened. Therefore, there are increases in attitude of environmental protection concern, alertness and awareness, also increase of knowledge pertaining the effects of ongoing damaging the environment is harmful for current and future generations.

2.3.1.2 Environmental Concern Toward Organic Foods

“Environmental concern is a strong attitude towards preserving the environment” (Crosby, Gill & Taylor, 1981).according to the pioneering research of Dunlap & Van Liere (1978), “environmental concern is also defined as a global attitude with indirect effects on behavior through behavioral intention (Crosby at el. 1981). People’s psychological responses towards the environment as individuals and consumers are also referred to as environmental concern attitude. Some writers have referred to ecological concern”, which refers to the degree of emotionality, the amount of specific factual knowledge, and the level of willingness as well as the extent of the outcomes of these (behavioral intention, recycling behavior and purchase intention on organic food products) on pollution issues (Maloney & Ward, 1973).

Crosby et al. (1981) mentioned: “Consumers are getting more concerned with the consumption of chemical substance used in farming and environmental concern is a strong attitude towards preserving the environment.” “Convincing evidence supporting the growth of ecologically favorable consumer behavior is the increasing number of individuals who are willing to pay more for environmentally friendly products”(Michel, 2001).

About the Concerns on pesticide about food safety either to the environment or to personal health, Swanson and Lewis (1993) mentioned “there are assumed to be the most important determining factors in the decision to buy organic food. Modern farming techniques generally include the application of chemicals to speed up growth process and to achieve high yields. These practices, however, can deplete the soil, damage the environment, and create products that are unsafe to eat”. Brom (2000) applied the term “consumer concern” to describe the fears of consumers’ about pesticide content and residue under modern food production systems as concern on food safety during consumers’ pay their trust and buying of organic food, there are risk to found content of perceived pesticide (Saba & Messina, 2003).

This sentence was wisely said by researched: “Consumers purchase organic food mainly for health reasons, in view of being better for the children because of lower pesticides and fertilizer residues”(Soil Association, 2000, Makatouni, 1999, Latacz-Lohman & Foster, 1997, Morris, 1996, Davies et al., 1995, Tregear, Dent & McGregor, 1994). According to the Soil Association, 2000, Grunert and Juhl (1995), Grunert (1993) and Sparks & Shepherd (1992) said” the trend towards increased consumption of organic food can be linked to a broader concern about environmental issues”.

The researcher has looked upon organic food purchase behavior as a part of broader "green" purchase behavior or environment-friendly behavior (Schlegelmilch, Bohlen & Diamantopoulos, 1996) and thoughts have been propagated in international context by researchers who indicate that green or environmentally-friendly category might be especially appropriate for a study of opinion leadership (Piirto, 1992; Flynn, Goldsmith & Eastman, 1996). The reason behind this growing interest is that organic products are perceived as less damaging to the environment and healthier than conventionally grown food products by a growing number of consumers (Chen, 2007). Magnusson, Arvola, Hursti, Åberg and Sjödén (2003) also identifies concerns for health and for the environment as the two most commonly stated motives for purchasing organic foods with personal health being more important than concerns for the environment (Tregear et al., 1994; Wandel & Bugge, 1997). According to Magnusson et al. (2003), health and environmental motives differ from each other because the health concern can be regarded as anthropocentric or egoistic (benefits to the individual or his/her family) while consideration for the environment and animal welfare are rather altruistic (benefits to society rather than the individual).

Verhoef (2005) has investigated to what extent economic variables (such as price, quality), emotions, social norms and environmental attitudes could explain the purchase intention and purchase frequency of organic meat. He concluded that perceived quality positively influences the purchase intention, while purchase frequency is not affected by quality perception. He furthermore finds that green behavior only weakly influences purchase intention and not results in increased purchase frequency. As indicated by Roberts (1996) and Wong, Turner & Stoneman (1996), the majority of people are not

prepared to compromise on other functional characteristics like quality and convenience for a better environment.

Positive attributes including taste improvement in organic foods was surveyed and identified as additional that consumer associate (Davies et al., 1995), as better for the environment (Lea et al., 2005), and wildlife (Goldman & Clancy, 1991).

2.3.2 Attitude

2.3.2.1 Defining of Attitude

Attitude is either a person positively or negatively responds when facing a requirement like situation, object , to another party or person or any idea that need to do a predisposition, when an individual facing situation like rewards, and challenges, the disposition will influences by attitude..

“Four major components of attitude are (1) Affective: emotions or feelings. (2) Cognitive: belief or opinions held consciously. (3) Conative: inclination for action. (4) Evaluative: positive or negative response to stimuli” (Businessdictionary).

2.3.2.2 Attitude Related Factor Toward Purchase Intention of Organic Foods

An attitude, a key concept in social psychology, is “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor” (Eagly

& Chaiken, 1993). It is well documented that attitudes influence behavior when confronted with many choices people tend to take the one with the highest score in the overall appraisal of attitude (Arvola, La ̈hteenma ̈ki & Tuorila, 1999). However, general attitudes are usually not very predictive of specific behaviors (Ajzen, 2008), including in the area of environmental consumer behavior (Bamberg, 2003). It has been shown that the more closely the attitude corresponds to a certain behavior, the more predictive the attitude is about the behavior (Ajzen & Fishbein, 1977; Heberlein & Black, 1976). Therefore, the attitude toward the behavior is a more effective predictor of the behavior than a more general attitude (Ajzen & Fishbein, 1977), such as environmental concern (Bamberg, 2003).

Some researcher mentioned the attitude toward organic foods was inconsistence, the matter of attitudinal interaction and inconsistency deserves more during consideration (Ajzen, 2001), while Squires, Juric and Cornwell (2001) was mentioned "consumers might demonstrate distinctive attitudes, purchase intention and behavior toward organically grown food that varies based on the level of their country development." However, beliefs are a factor guide the formation of attitude, the perceived of subjective norm and the perceived of control over performing an action. (Ajzen, Joyce, Sheikh & Gilbert Cote, 2011).

There are very unnoticeable regarding consumer attitudes for toward organic product research (Chinnici at el., 2002). Based on previous research results, the positive attitudes were shown and confirmed when consumer purchase the organic foods, as organic food considered an alternative supply from conventional foods and healthier (Chinnici et al., 2002; Harper et al., 2002). Vermeir and Verbeke (2004) highlighted "Consumers not

always buy sustainable products as concern of environmental or community beneficial or due to personal beliefs but mainly to give priority to health."

Many researcher including Grunert and Juhl (1995), Batte, Hooker, Haab and Beaverson (2007) Saba & Messina (2003), Boccaletti and Nardella (2000), Grunert (2005), Padel and Foster (2005), Krystallis and Chryssohoidis (2005), Tuu and Olsen (2009) and Tarkiainen & Sundqvist (2005) were found the same as "Consumers' attitudes toward organic food also contain various dimensions of constructs related to affection, awareness and behavioral tendency. Key dimensions stated in the literature include the concerns on pesticides content and safety of food, perceptions of food quality, concerns to the environment, trust in the veracity of organic food labeling, and opinions on the prospects of organic agriculture, The components of these attitudes are often interrelated and correlated to purchasing decisions."

Because of social pressure, some customer has been influenced positively to choose environmentally friendly and sustainable produces (Vermeir & Verbeke, 2006), however, there are some still remain negative attitude in this sector.

For example, the willingness-to-pay still shown a positive relationship in environmentally friendly foods compare with risk of food pesticide (Boccaletti & Nardella, 2000), but regarding of trust, result shown negative association for the relation (Dreezens, Martijn, Tenbu¨lt, Kok & DeVries, 2005). Meaning Consumers' are not necessary to trust the organic foods when they believe on the risk of chemical content in conventional foods.

"While attitudes toward organic agriculture play an increasingly important role in consumers' purchasing decisions, their causal relationship is often less obvious due to some extraneous factors. For instance, consumers may possess positive attitudes toward organic food, but they tend to be relatively passive in their purchasing behavior, often due to having a limited budget" (Grunert & Juhl, 1995). Padel and Foster (2005) state that "prices and personal income remain crucial barriers, but these barriers will be lessened and consumers will pay a premium once they possess positive attitudes toward organic food and realize the reasons for organic food's higher cost". Therefore, personal factor becomes significant to influence and control the attitudes on purchasing behavior of organic foods.

In term to get effects of purchasing process to determine the hierarchy for organic foods, result previous research is important (Lavidge & Steiner, 1961) and personal factor that influence of the effect (Gatignon & Robertson, 1985), related research in the same field also requires add in intention to get a prediction of the purchasing behavior in this area (Ajzen, 1991).

2.3.3 Knowledge

2.3.3.1 Defining of Consumer Knowledge

Knowledge is level of a person to understand regarding a subject that person obtain from information, learning or previous experience, as either the information hold by a group or known by the individual, Andre (2007) definite "knowledge as a things that are held to be true in a given context and that drive us to action if there were no impediments."

Consumer knowledge is refer to the understanding of customers or person who use the product, the needs, wants and aims. It includes intimate, tacit knowledge and analytic or distant knowledge, including detail about the foods. (Dobney Market Research, 2013).

2.3.3.2 The Relation of Knowledge with Intention to Purchase of Organic Foods

Knowledge relevant to the consumer and it is influenced by the person's behavior; There are three (3) categories that split by Brucks (1985);

i. subjective (knowledge)

ii. objective (knowledge)

iii. experience (prior)

(i.e. what a person or a group assume that he/she/they know is referring to subjective knowledge or self-rated knowledge. What a person or a group actually know referred to objective knowledge).

Flynn and Goldsmith (1999) claimed that above scheme was followed by many related research. To determine the degree of confidence in an individual's own knowledge, it is incorporates by Subjective knowledge. Referring to Selnes and Gronhaug (1986) and Brucks (1985), the objective knowledge will show different with the subjective knowledge when happen consumer not able to perceive in an accurate way on the little or how much the person actually know.

Empirical evidence has shown that lack of information to locate environmentally friendly products by customers (Brown 2003). There are studies to identify the barrier for consumers to purchase is insufficient of availability to purchase the organic foods in the market (Beardsworth, Bryman, Keil, Goode, Haslam & Lancashir, 2002; Davies et al., 1995). Feick and Price (1987) defined market as a person who holds many kindly of on hand information for require products, locate in a shop with the intention to release the information to the consumer asking the information from consumers as responses from the discussion.

Consumer buying behaviors can be increased by increasing the sequent of dissemination of information, this was mentioned by Bazoche, Deola and Soler (2008), the practice will change consumers' knowledge regarding the environment, change of human attitudes and, thus, buying behaviors. Socio-demographic factor, for example, male or female (Laroche, Bergeron & Barbaro-Forleo, 2001; Rimal et al., 2005; Robinson & Smith, 2003; Lyons, Lawrence & Mummery 2002; Lockie et al., 2004; Laroche, Smith & Robinson, 2003; Davies et al., 1995; Lea & Worsley, 2005; Oni, Oladele & Inedia, 2005), the age of consumer (Smith & Riethmller, 1999; Thompson, 1998; Rimal et al., 2005), the age of consumer (Rimal et al., 2005; Smith & Riethmller, 1999; Thompson, 1998), level of education (Oni et al., 2005; Lockie et al., 2002; Robinson & Smith, 2003; Thompson, 1998; Thompson & Kidwell, 1998) quoted the significant influence shall require to increase the habit to purchase of organic foods. Some Asian countries who studied the same also confirmed these (examples. Roitner-Schobesberger, Somsook, Darnhofer, & Vogl., 2008). Hill and Lynchehaun (2002) stated in the research their of

organic milk, the effective marketing is when the consumers' educational level and knowledge appeared in the middle in the targeted audience.

Krystallis et al. (2005) mentioned the factor to determine purchasing decision by consumers toward organic foods is trust. In addition Lee and Holden (1999) mentioned that producer's integrity, plus the obtained organic certification, will generate trust for consumers to purchase organic products linearly. Also for the time seller, promote their so called organic products with market advantage (Munnichs, 2004), while Lingreen (2003) Yee, Yeung and Morris (2005) It is difficult for consumers to determine the trustiness of organic products labeled foods , as the disagreement still happened among the experts around regarding the determination of what is the level for the human body to handle the risks.

Habits of taking meal are also a possible factor in organic foods, buying determination and behavior. This factor actually very rarely mentioned in earlier researcher, but this factor was included in the study before. There is an increase of probability of purchase intention of organic foods for the consumer group that’s taking daily meal such as breakfast, lunch and dinner at home. Therefore, this factor shall include in the study to count the sequence buying organic foods increases for the consumer who more frequent taking meal at home. For the consumer attitude and purchasing behavior, believed there able to influence by type of occupation, some occupation, maybe make the consumer hard to get organic foods easily or occupation only allows minimum time for taking meal as rush to meet scheduled events, this also rarely discussed in the literature. This socio-economic status is an important part of a person and to determine of buying organic foods and also significant for the study, recommended when the research held in

majority in urban areas. . Socio-economic as actually put as a variable in other studies, but separated from the current study as Kedah considered mainly are rural area and residents have the privilege not to face urbanization traffic and busy working style, therefore, this research considered all respondents in a similar environment.

Some studies released the consumers' education level were influencing the purchase intention of organic foods. The individual who has higher education status is more interest in purchase of organic foods compare with individual with lower educational status (Dettmann & Dimitri, 2007). However, there are a result of the purchase intention is slightly affected in some studies mentioned by Yin, Du and Chen (2010) regarding of age and status of education.

Other than above, there still have researchers found that consumers are less willing to consider the price of organic foods during considering to purchase as compare to the person never or not to purchase organic foods (Williams & Hammitt, 2000). This factor is also a reason that the price was not set as variable of study as if the person have purchase intention toward the organic, then he will definitely willing to pay with the benefit of organic foods.

Since over 10 years in Western European Countries, there are countable and significantly increased of organic food consumption, it happens the same in the USA (Sahota, 2007). However, if compare to conventional produce's market, the share of organic foods in market as overall still considered low. Researcher Saba and Messina (2003) mentioned whilst most consumers carry with a positive attitude to purchase organic foods, although the people in the area always face difficulty due the great significant barriers. The

difficulties are the organic foods' characteristics uneatable, in the research, the study of the factors influencing the organic food consumption was done, while focusing in with specific on the potential role of knowledge (self-rated).

According to Fotopoulos and Krystallis (2002) and Davies et al. (1995) "The researchers use the high price, short of trust pertaining organic foods, short of perceived value, limit of foods choice and availability limitation as factors for reasons limited consumption of organic, this happened internationally" MINTEL (2000) cited the main reason for not purchase of organic foods is because of price.

Gracia and De Magistris (2007), Stobbelaar, Casimir, Borghuis, Marks, Meijer and Zebeda, S. (2007), Chryssochoidis (2000) Bonti-Ankomah and Yiridoe (2006) and Padel & Foster (2005) have reported regarding level consumption of organic foods, there are positive influence from factor of additional knowledge and greater. Thøgersen (2007) mentioned the negative impact toward intention to purchase organic foods is because of uncertainty about organic produces. Demeritt (2002) reported the main reason people don't purchase organic foods us because of awareness and lack of knowledge.

Brucks (1985) mentioned regarding to the behavior of decision-making and information searching, the likelihood of objective and subjective knowledge is significant, although maybe not the same directions. Subjective knowledge, when it is in low level, the individual will have insufficient of confidence level in to present existing knowledge, looking for additional information may give a motivation to a person. While subjective knowledge of a person in higher level, Ruddell (1979) and Brucks (1985) mentioned there will increase of reliance of a person pertaining earlier received information.

“Objective knowledge promotes a person’s to have deliberation abilities also exercise the recent received information (Selnes et al., 1986; Ruddell, 1979). Park and Lessig (1981) and Brucks (1985) mentioned there are positive affect of attributes count referring to consumers who search for knowledge, by Objective knowledge.

However, Bamberg and Moser (2007) highlighted the “meta-analysis’s” result as below; “emphasizing the part of the person’s knowledge toward current environment’s impact issues now become the main of not direct determinant behavior of pro-environmental. Knowledge was known as related to internally ascription regarding responsibility, social norms and guilty feeling. Pro-environmental behavior, Perceived Behavioral Control and attitudes have directly influenced. Thøgersen (2009) did mention regarding the relevant issues to the knowledge has promoted a positive influence as same as above.

Selnes et al. (1986) and Feick, Park & Mothersbaugh (1992) mentioned the comparison with objective knowledge, the motivation from subjective knowledge is stronger influence in term of behavior related to purchase, continue with other researchers, House, Lusk, Bruce Traill, Moore, Calli, Morrow and Yee (2004) have mentioned without observe on objective knowledge, the significant and positive relationship between subjective knowledge on willing to pay for genetically modified foods, meaning consumers still willingness on buying conventional foods. Ellen (1994) has studied on the source reduction, recycling, and political action, the result were significantly and positively related to subjective knowledge, but in term of the 3 variables, only recycling was shown significant associate to objective knowledge.

After referring to above result found by researchers, in term of a confidence level for persons in their own knowledge, there are positively associated with subjective knowledge, besides, it also determines how strong the attitude of a person toward product and also behavior. But according to result in an earlier paragraph, shown that the behavior having stronger positively related to subjective knowledge compare with objective knowledge. But in this study, the variable name as knowledge with not split by either subjective or objective knowledge, respondents able to answer either base on their subjective or objective knowledge.

According to researchers, Carlson, Vincent, Hardesty and Bearden (2009), Feick et al. (1992), Brucks (1985) and Klerck & Sweeney (2007), The report shown for subjective and objective knowledge's correlations always in result of 0.3 to 0.6 in range, continue with the researchers Klerck et al. (2007) and Selnes et al. (1986), they indicated that " a very perfect correlation found between objective knowledge and subjective knowledge, According to Klerck et al. (2007) and Selnes et al. (1986), they suggested the attention should give to the study of different result among the two measures, this is because either of it able to give different results for the processed information and subsequent consumer behavior". This gap was sometimes was neglected in the research. Selnes et al. (1986) proposed that "objective knowledge's measures are preferable when study is looking into the differences of ability, while subjective knowledge's should measure when focusing on motivational aspects of product knowledge.

About the influence of consumption of organic foods concerned with Objective, with term of organic foods, confusion and lack of knowledge were among almost limitation found when researched in European respondents, this was empirical evidence in several

studies. (Aarset, Beckmann, Bigne, Beveridge, Bjorndal, Bunting, Mcdonagh, Mariojouls, Muir, Prothero, Reisch, Smith, Tveteras & Young, 2006; Grunert & Kristensen, 1992; Peattie, 1990; Midmore, P., Naspetti, A-M.S., Vairo, D., Wier, M. & Zanoli, 2005) highlighted that, "The are still remain low relatively of organic product knowledge in Europe generally, even though European are variation considerable countries. For more evidence, Hutchins and Greenhalgh (1997) highlighted in their research, an open-ended questions survey form was distributed to 100 respondents, with interpreted the term of organic farming, received the reply to everyone answered the meaning of farming "without chemicals". Related associations made were "natural", "not intensively" and "without growth hormones".

The argument happened as 'organic' defined in the "Oxford English Dictionary" explained the organic was produced without using artificial fertilizer or pesticides" then consumer changed their understanding to the words, the word genetically modification and irradiation process was not stated during the explanation. Beharrell and MacFie (1991) and Hill et al. (2002) highlighted that people mainly understand the key attributes related to organic farming, but many of them actually do not understand the detail of nature in the organic farming including practices and the incurred costs.

The intention to alert the consumer regarding the awareness and importance of knowledge in organic foods, this has been mentioned by several authors, this is also important for future market grows of organic foods, several research as follows, Bonti-Ankomah and Yiridoe (2006) designate the very relevance of consumers 2 specific segments, the 1st segment constitutes the number of respondents with a status of uninformed about organic foods; and 2nd segment of of respondents who are potential

consumers with organic foods' knowledge in general, regarding lack of information detail of organic foods that able to differentiate clearly the unique attributes of organic foods compare with conventional foods, with then didn't put into considering of purchase. Demeritt (2002). The kind of report regarding insufficient awareness and knowledge should determine as a key reason of not to purchase organic foods for consumers lived in the USA – 59% of surveyed individual who responded that themselves did not know what is organic foods about and they never considered to purchase the organic foods. Fotopoulos and Krystalli (2002) was made a distribution result from categorized of aware buyers (8.1 %), aware non-buyers (73.1 %) and unaware consumers (18.5 per cent) of organic foods in Greece.

Padel and Foster (2005) was argued in their research regarding awareness of the premium of organic foods besides price, the study of this topic is referred to the same opinion with Padel and Foster (2005) to study the variable behind price, they said should the consumers increase the awareness of the benefit of organic foods behind price, the consumer would be more willing to pay for getting the organic foods.. The Taylor Nelson Sofres report (Organic Centre Wales, 2004) were reported of 14% non-organic foods' consumes has mentioned that lack of information to ensure the high of organic price still key reason for no intention to purchase. Denver, Christensen and Krarup (2007)) commented there are only single studied covered topic related to organic in the research "Willingness To Pay". Follow on this, Underhill and Figueroa (1996) discovered there is a significant and positive effect should the organic foods in market provide another extra information on label of products, regarding the increase of likelihood of purchase intention of organic products with the extra information's labels,

the indicator “Certified Organic” and “Grown with Integrated Pest Management (IPM)”. The information would be more effective to inform the product as an organic by using this way. This is because consumers’ so called ex-ante knowledge with concern of the normal labels was significantly low compared with the organic labels. In concern of youngsters, an experiment was established to study amongst teenager of 15~16 years old, and found that in the knowledgeable results shown, they are better positive attitude towards organic foods. As level of knowledge among youngsters still considered simple and low, with 50% of the teenager are actually zero knowledge regarding the organic foods. The survey is to promote them to understand the organic foods’ definition with intention to have a change the perception from mostly neutral towards a (fairly) positive attitude. Stobbelaar et al. (2007).

Bredahl and Thøgersen (2004) have identified during the interview in Denmark, United Kingdom and Germany, the non-organic consumer have less knowledge structure compare with regular organic foods consumers as able to exhibit more complex knowledge structures of the foods. In another view, there are still have different finding in study that not all was same result with positive relationships between knowledge of organic foods. Gotschi, Vogel and Lindenthal (2007) has measured objective knowledge toward organic foods together with the printed labels by asking students in Austrian high school with content related to organic products including the characteristics. As a result observed, there are no significant relationship between the knowledge with attitudes and behavior.

Pertaining subjective knowledge as declared have positively related to the behavior and purchase intention of organic foods, Chryssochoidis (2000) and Gracia et al. (2007) was

noticed the purchase intention of organic foods is influenced positively with a high level of subjective knowledge. Gracia et al. (2007) was argued the above finding as because the knowledge is considered only an instrument for consumers to know further and in order to differentiate the conventional foods with the attributes of organic foods. In addition, the study also noticed the respondents showed the positive attitude toward for both organic and conventional foods. Chryssochoidis (2000) commented that the action is likely keeping consumers away from organic food, since they was felt not capable to make a good choice, called this as weak perceived self-competence. This argument was confirmed by Thøgersen (2007) as he found the uncertainty was giving negative impact directly to the purchase intention of organic foods and the translation from only intention to purchase to the actual purchase of organic food.

For factors of influence between knowledge with organic food, Gracia et al. (2007) "found that information on organic food products available in the market has a significant and positive influence on (subjective) knowledge about organic food". The researcher referred to Bigne ´(1997), indicates that organic food knowledge is influenced by information provided by the public administration, mass media, ecological associations and shopping sites. In other sector, Park, Mothersbaugh and Feick (1994) "found that subjective knowledge about CD-players is more strongly influenced by product-related experience (59 per cent) than by stored product information (33 %). Stored product information is a more important determinant of objective, rather than subjective knowledge, whilst product-related experience is a more important determinant of subjective rather than objective knowledge."

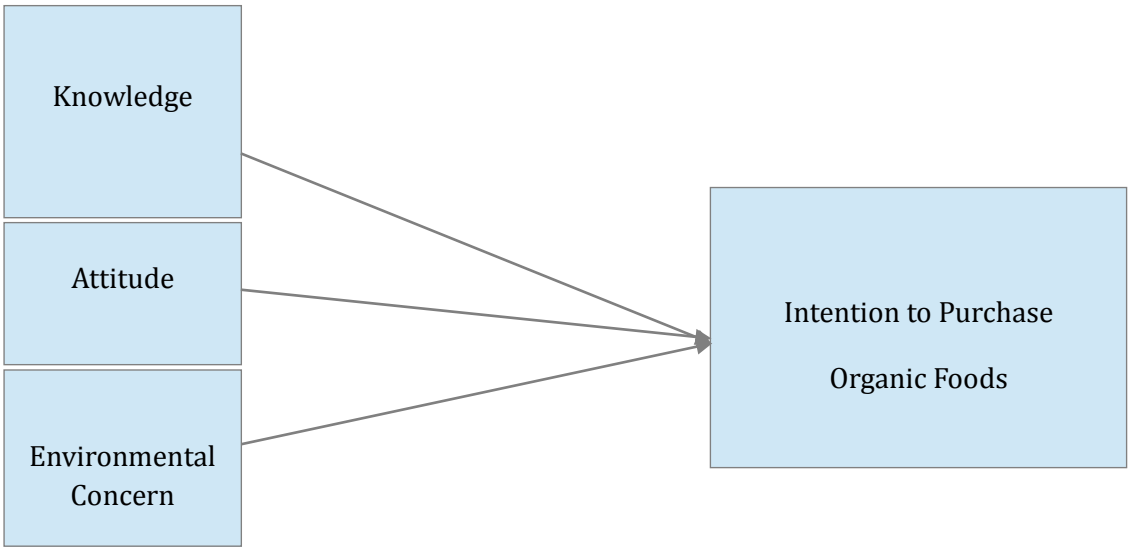
There are studies indicated that education level will determine level of knowledge, higher education for an individual will have a positive relation to higher knowledge to determine the purchase intention of organic foods, (Gracia et al., 2007; Stobbelaar et al., 2007; House et al., 2004; Storstad & Bjørkhaug, 2003; Bigne´, 1997; Ellen, 1994), Ellen (1994) "examined the relationship between knowledge, pro-ecological attitudes and behaviors and found that younger age and higher income are significantly and positively related to both subjective and objective knowledge". by the way, Bigne´ (1997) mentioned there are positive and significant relationship referring income with organics' knowledge. House et al. (2004) observed that "subjective knowledge about Genetically Modified Foods is influenced by religion and country of origin." Gracia et al. (2007) and Bigne´ (1997) have found that "lifestyle (e.g. vegetarian, additive free) and values are sometimes significantly related to knowledge about organic food."

2.4 Theoretical Framework

Based on the researched problem literature review, the following has designed a framework for research and the model has been developed. Mentioned model is focusing regarding the correlation between knowledge, Attitude and Environment toward purchase intention of organic foods.

2.5 Research Framework

Independent Variables (IV) Dependent Variable (DV)



It is postulated that consumer intention to buy organic foods is influenced by numerous individual factor such as their knowledge and attitude towards organic foods. It is also assumed that a part of purchase intention is actually influenced by their level of environmentally concerned.

2.6 Hypothesis Development

Based on the preceding discussion and research framework, the following hypotheses is hypothesized to answer the research objectives:

H1: Knowledge of organic foods has a significant relationship with intention to purchase the organic food.

H2: Attitude toward organic foods has a significant relationship with intention to purchase foods the organic.

H3: Environmental concern has a significant relationship with intention to purchase the organic foods.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

Chapter three provide the detail description of the methods and steps applied to conduct of the study. This chapter was covered the research design, research framework, data collection procedures, measurement and instrumentation, and techniques of data analysis in the study.

3.1 Research Design

The research adopted the quantitative approach to examine the correlation or relationship between the consumer knowledge, attitude and environmental concern to the purchase intention of organic foods in the state of Kedah, Peninsular Malaysia. According to Filipowick (2014), the advantages of correlation research method are allowing the researcher to gather as much as data compare experimental research. Besides, the results obtained are closer to human daily life and may represent human character. Additionally, correlation research method enables researchers to examine the direction and strength among the variables, and narrow down the finding of a research study.

The research design of the study is a descriptive survey study. This study is intended to describe the significant relationship between dependence variable and independence variable. This is quantitative research, and therefore, the data were conducted through distributing the questionnaire to targeted respondents in the area.

3.1.1 Type of Study

The research's goal is to conduct as examine the relationship between the independent variables of consumer knowledge, attitude and environmental concern to the purchase intention of organic foods in the state of Kedah, Malaysia. This study employed quantitative method to gather the data through research instrument, i.e. self-administered questionnaire. This study is cross-sectional in nature.

IBM Statistical Package for Social Sciences (SPSS) version 19.0 was used as a tool to analyze the collected data, the research finding and conclusion was fully depending on the statistic generated by SPSS.

3.1.2 Sources of Data

Primary data and secondary data were employed to analyze in this study.

3.1.2.1 Primary Data

According to Sekaran (2006), The data that gather for research from the actual site of occurrence of events is called primary data, primary data can defined as the original or first-hand information that gather by the researcher. The data obtained from the questionnaire, distribute and collect from respondent deemed as the most suitable data collection method.

3.1.2.2 Secondary Data

Secondary data can defined as the collected data or information that called "gathered through existing sources by someone than the researcher conducting the current study such as a company record," data from publications, industrials analysis, web publication and others (Sekaran, 2006). The benefit of referring secondary data is cheaper to obtain and less time consuming because the information is ready and prepared by other researchers, authors, professional and expert.

The secondary data able to provide empirical result the researcher regarding the subject or matter from a different perspective. In the study, the collection of data may use external resources, including journal and article, internet resources, etc. for secondary data collection; researcher has used academic articles and journals by searching through different resources, such as UUM library, Google Scholar and books from various authors and internet search engine.

3.1.3 Population and Unit of Analysis

The unit of this analysis in the study is focused to an individual level. The study was targeted to get the respondents who already completed their conventional school education, meaning working adult, self employed or housewife. The population of the study was Kedahan. The total number of the population approximately 2,046,100 peoples which covered the ethnic of Malay, Chinese, Indian, Other and non-citizen as according to the table below;

Table 3.1
Total Population in Kedah (2014)

Ethnic	Population	Percentage
Malay	1,552,100	75.8%
Chinese	261,900	12.9%
Indian	141,600	6.9%
Other	19,400	0.9%
Non-Citizen	71,000	3.5%
Total	2,046,100	100%

Source :www.kedah.gov.my

3.2 Sampling Design

This study utilizes a simple random sampling technique where the researcher distributes questionnaire, priority given to the working adult, however, student in industrial and practical training are involve should they receive the random distributed questionnaire.

This is a cost effective method and easy to access with obtaining responses from the respondents.

Table 3.2
Title: Yamane's (1967) table of sampling

Size of Population	Sample size (n) for Precision (e) of: +/- 3%	+/- 5%	+/- 7%	+/- 10%
500	A	222	145	83
600	A	240	152	86
700	A	255	158	88
800	A	267	163	89
900	A	277	166	90
1,000	A	286	169	91
2,000	714	333	185	95
3,000	811	353	191	97
4,000	870	364	194	98
5,000	909	370	196	98
6,000	938	375	197	98
7,000	959	378	198	99
8,000	976	381	199	99
9,000	989	383	200	99
10,000	1,000	385	200	99
15,000	1,034	390	201	99
20,000	1,053	392	204	100
25,000	1,064	394	204	100
50,000	1,087	397	204	100
100,000	1,099	398	204	100
Over 100,000	1,111	400	204	100

a - Assumption of normal approximation is poor (Yamane, 1967). The entire population should be sampled.

According to Yamane (1967) the sample size is 100 when the population is not more than 100,000, as shown in Table 3.2. The total respondents require more than 100 answered and return the questionnaire. As a result, 130 copies of questionnaire are prepared to distribute and expect the return yield not less than 77%, should the return and answered questionnaire below 100, more questionnaire to be reprinted and distributed.

3.3 Data Collection Procedures

Data collection was conducted through a survey questionnaire due to the facts that the respondents will be more open to answer the questionnaire as the confidentiality of the respondents is assured.

To encourage the return rate and respondent participation, the respondent's identity wasn't disclosed in this data collection.

Data was collected in March 2015. The questionnaires were distributed in major shopping mall in Kedah. Due to time constraint, only five major shopping malls namely from Alor Setar (2 shopping malls), Sungai Petani (2 shopping malls) and Kulim (1 shopping mall) were approached during the data collection duration. A mall-intercept approach were employed. To ensure the representativeness of the data, stratified random sampling were used. As a result, every 5th consumers that across the check out counter of the shopping mall were approached. A letter of permission from

shopping mall to conduct the study at their premises was gained and attached to the questionnaires. Besides, a cover letter that explains the purpose of the research also attached to the questionnaires.

3.4 Measurement and Instrumentation

The study utilized the quantitative approach. The method of primary data collection was solely on questionnaires. The questionnaires containing five sections were used in the collection of data for the research. The respondents were required to answer all the questions.

The first section was content the respondent's demographic factors such as age, race, gender, income range, educational level, etc, but no personal identity such as name, address, contact number and identity card number to be filled. The second section of the questionnaire regarding the first independent variable, which is organic foods knowledge related questions. It was measured by seven questions with all adapted from Aertsens, Mondelaers, Verbeke, Buysse & Huylenbroeck (2011).

The third section of the questionnaire regarding the second independent variable, which is attitude related questions. It was measured by four questions with all adapted from King (2011). The fourth section of the questionnaire regarding the third independent variable, which is environmental concern related questions. It was measured by nine questions with all adapted from King (2011).The fifth section of the questionnaire is

regarding the dependent variable, which is purchase intention toward organic foods related questions. It was measured by four questions with all adapted from Wong, XinRu and Yin (2012). The following Table 3.3 summarized the measurement and items of each construct.

Table 3.3
Measurement and Items

Section	Construct (s)	Number of Items	Source
1st	Demographic	7	
2nd	Knowledge	7	Aertsens et al. (2010)
3rd	Attitude	6	King (2011)
4th	Environmental concern	9	King (2011)
5th	Purchase Intention	4	Wong et al. (2012)

The Five Point Likert Scale was used in this study with intention as a tool to measure the variables, both including independence and dependence variables. The respondents who received questionnaire were required to indicate the extent to which they were agreeing or disagree with each of the statements. The scale rating is from 1 to 5 which is 1 being strongly disagree, 2 being disagree, 3 being neutral, 4 being agreed, and 5 being strongly agree.

Table 3.4
Rating scale (Five Point Likert Scale)

Scale	Description
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

According to Krosnick (2010), Research had indicated that a Five Point Likert Scale is as good as any scale and an increased from 5 to 7 or 9 points on rating scale does not improve the reliability of the ratings.

3.5 Data Analysis Techniques

The collected data were coded and compiled in the SPSS version 19.0 software. Several statistical tests were conducted to determine the hypothesis testing, and the technique of data analysis was discussed as the following section.

3.5.1 Frequency Analysis

Frequency analysis was used for respondent's demographic factors that are being measured such as gender, age, education level, This analysis is useful to determine the frequency and percentage of the respondent participation.

3.5.2 Descriptive Statistics

Descriptive statistics were conducted by computing the standard deviation, minimum value and maximum value also mean of each dimension of the variables. The purpose of this analysis was to attain the result of obtaining the measures of dispersion and central tendency of the dependent and independent variable.

3.5.3 Questionnaires Pilot Test

Pilot test to be proceed to determine the reliability of the questions, targeting first 10 set of questionnaire to distribute for the test. The next questionnaire according to requirement of sample size referring to the table of Yamane (1967) to be proceed should the pilot test pass the reliability requirement.

3.5.4 Reliability Analysis

A reliability analysis was conducted on all three (3) independence variables and one (1) dependent variable. According to Sekaran (2010), an accepted Cronbach's Alpha value is 0.60 and above. Meaning that the Cronbach's Alpha value which less than 0.60 should be eliminated from further analysis. The range of Cronbach's Alpha and reliability has been shown as Table 3.5.

Table 3.5
The Range of Cronbach's Alpha Value with Reliability

Range of Cronbach's Alpha value	**Reliability**
1.00	Perfect
0.80 – 0.99	Good
0.60 – 0.79	Acceptable
Below 0.60	Poor

Source: The handbook of psychological testing (2nd ed.). London: Routledge, page 13 (Kline, P, 2000)

However, the reference to previous research reliability will follow should happen the reliability factor fall in poor, if the earlier research with same result, then shall consider as nature of the questions as consideration to determine the next.

3.5.5 Normality Analysis

Normality test was conducted to underlying the data set to be normally distributed. This analysis generated the result of Kolmogorov-Smirnov statistic and Shapiro-Wilk statistic. According to Pallant (2002), a non-significant result (p-value > 0.05) indicates normality. If a p-value is smaller than 0.05, it is quite common for sample size more than 200.

3.5.6 Inferential Statistics

Hypothesis test to be developed in this study, inferential statistics are employed. The data analysis is conducted by using Pearson Correlation Analysis and Multiple Regression Analysis.

3.5.6.1 Pearson Correlation Analysis

Pearson coefficient is to explore the strength and direction of the linear relationship between independent and dependent variable. The symbol of correlation is ***r***, with a range from -1.00 to +1.00. Table 3.6 indicates the range of Pearson's correlation with (*r*) symbol.

Table 3.6
Pearson's Indicate of Correlation

Value of Coefficient (*r*)	**The Strength of Correlation**
0.70 to 1.00	Very strong positive correlation
0.30 to 0.69	Strong positive correlation
0.01 to 0.29	Weak positive correlation
-0.01 to -0.29	Weak negative correlation
-0.30 to -0.69	Strong negative correlation
-0.70 to -1.00	Very strong negative correlation

Source: Correlation Coefficient Interpretation Guideline

A correlation coefficient is computed to investigate the strength of association among the variables. When the measure is closer to 1.00, that means the relationship is statically significant. The scale suggested by Saunders, Lewis and Thornhill (2007) are applied to

describe the intensity of the relationship between the independent with dependent variables in this study.

3.5.6.2 Multiple Regression Analysis.

Multiple regression analysis was conducted for analyzing the relationship between single dependent variable and a list of independent variables. Regression analysis is used to determine whether the independent variable explain a significant variation in the dependent variable or to find out whether the relationship is exist.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.0 Introduction

This is the collected data, providing an analytical chapter, After the questionnaire has been obtained, the data analysis was conducted to get the result and for discussion. The main reason of the study is to get the result of the relationship between the variables of consumer knowledge about the organic foods, attitude and environmental concern has a direct relationship toward purchase intention of organic foods. This research wished to achieve the research objectives and answer the research questions as highlighted in chapter one. Further on this, this chapter with intention to verify the significance of hypotheses as indicated in the chapter two.

In general, six parts were divided within this chapter that included the data collected overview, the respondents' profile, reliability analysis, descriptive analysis, regression analysis, the major finding and discussion, and summary of findings.

4.1 Participation and Response Rate

4.1.1 Response Rate

A total of 130 sets of the questionnaire including printed and soft copy was distributed and emailed to respondents in the state of Kedah. However, there are only 117 sets were returned and 13 sets were not returned due to unknown reason. Thus the percentage of response rate for this study is 90%.

Table 4.1
Response Rate

Description	**Total (set)**	**Percentage**
Questionnaires distributed	130	100%
Questionnaires returned	117	90 %
Questionnaires unreturned	13	10 %

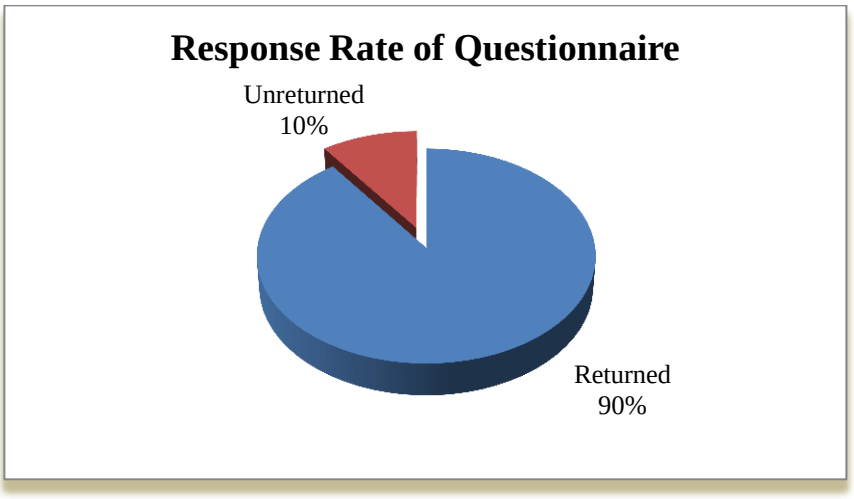


Figure 4.1
Respond rate of distributed questionnaire

4.2 Profile of Respondents

The survey demonstrated the details concerning demographic characteristics or respondent's profile as shown in Table 4.2;

Table 4.2
Respondent's Profile

Respondent's profile		Frequency	Percentage (%)
Gender			
	Male	31	26.5
	Female	86	73.5
Age			
	20 years and below	2	1.7
	21 – 35 years	87	74.4
	36 – 50 years	27	23.1
	51 years and above	1	0.9
Education level			
	Secondary School	15	12.8
	Diploma / STPM	40	34.2
	Degree / Prof. Degree	55	47.0
	Master	4	3.4
	PhD	3	2.6
Race			
	Malay	94	80.3
	Chinese	20	17.1
	Indian	1	0.9
	Thai	1	0.9
	Other	1	0.9
Marital Status			
	Single	47	40.2
	Married	65	55.6
	No answer (Not to be used)	5	4.3

Field of Service			
	Private	81	69.2
	Government	10	8.5
	Self Employed	5	4.3
	Social Worker	5	4.3
	Housewife	4	3.4
	Student	11	9.4
	Other	1	0.9
Income Range			
	RM1000 and Below	22	18.8
	RM1001~RM3000	77	65.8
	RM3001~RM6000	9	7.7
	RM6001~RM10,000	4	3.4
	RM10,000 and above	3	2.6
	No answer (Not to be used)	2	1.7

The profile of respondents is summarized as shown in Table 4.2. From the total of 117 respondents, 31 persons or 26% of male respondents and 86 persons or 73% female respondents was participated in answering the questionnaire, as shows in Figure 4.2.

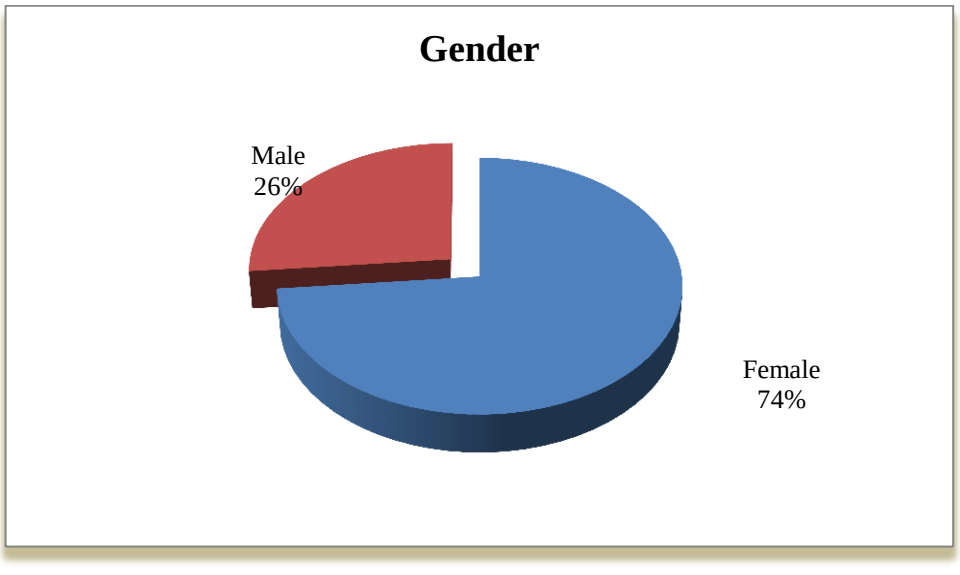


Figure 4.2
Gender of respondents

The age ranges split into four categories, which are 20 years old and below, 20 to 35 years old, 36 to 50 years old, and above 50 years old. The majority of the respondents found that are from the category of 20 to 35 years old with frequency 87 or 74.4% which consisted more than half from the total respondents. The age in the range of 36 to 50 years old is second highest with frequency 27 or 23.1%. There are 2 or 1.7% of respondents were under 20 years old, while the age range of 51 and above collected from total respondent was 1 person or 0.9%. Figure 4.3 shown the age range of respondents.

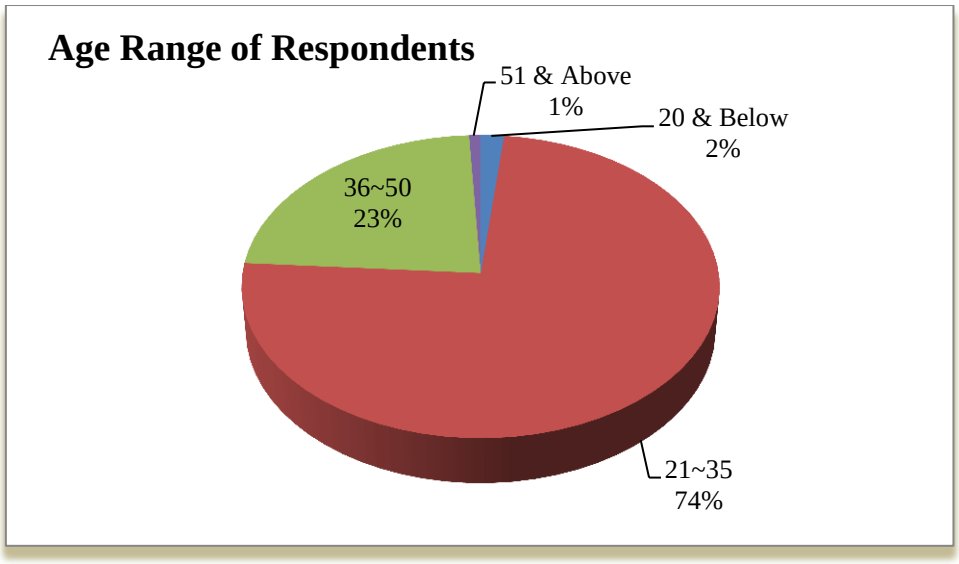


Figure 4.3
Age range of respondents

Education level of respondent show in Figure 4.4. The educational level split to four categories, which are secondary school or below, Diploma or Sijil Tinggi Pelajaran Malaysia (STPM), degree or professional degree holder, master degree holder and level same as Doctor of Philosophy (PhD).

There is a frequency of 13 or 12.8% respondents are from secondary school or below, the second largest group are from Diploma or STPM level that with 40 or 34.2% from total respondents. The majority of the respondents found that with degree holder as a frequency of 55 or 47%, which consisted almost half of the total respondents. The Master level is 4 persons or 3.4%. Surprisingly, there are 3 or 2.6% of respondents from data collected with PhD level, although the survey were not being conducted in the college or university.

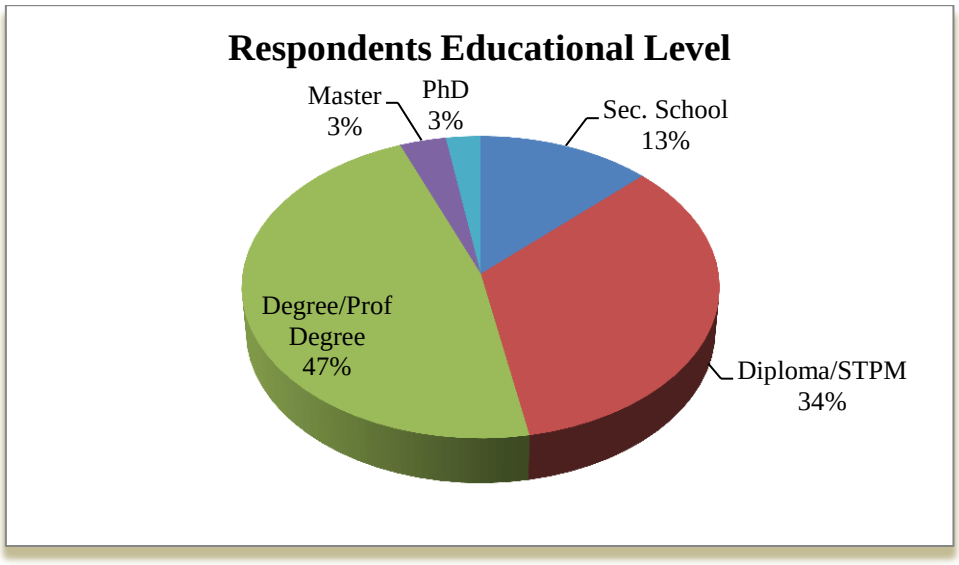


Figure 4.4
Respondent's Educational Levels

Respondent requires to fill in their race to determine either the survey will represent the ratio of race in Malaysia, The race stated Malay, Chinese, Indian, Thai and other, The race of Siamese split from after as determined the Thai population also significantly exist as Kedah. For the returned of the survey, there are frequency of 94 or 80.3% was from Malay, which consisted more than three quarters from the total respondents. The

second largest race also as expected, Chinese responder with a frequency of 20 or 17.1% answered the survey. The Indian, Thai and other race each found 1 or 0.9% of the responders for this survey.

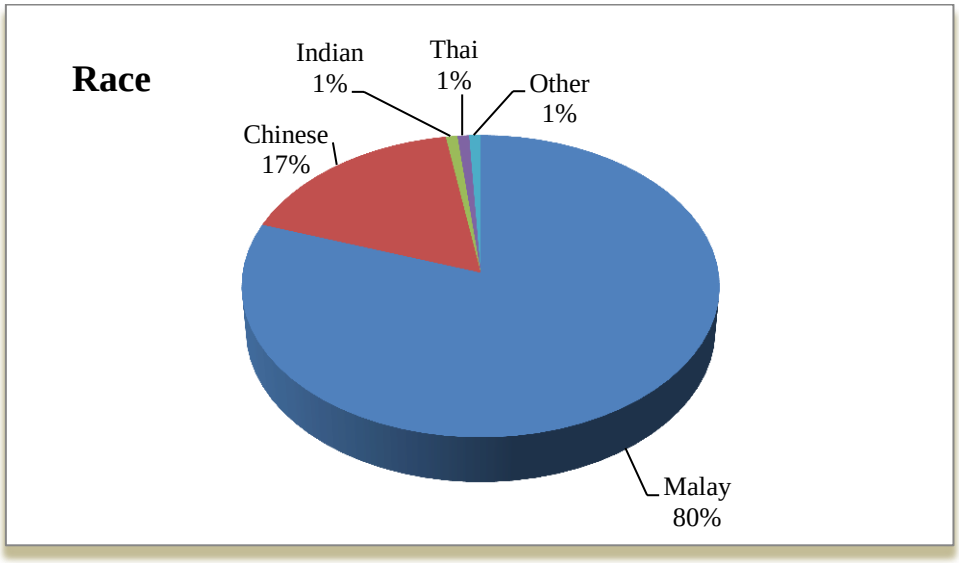


Figure 4.5
Race of Respondents

From the total of 117 respondents, There are 31 persons or 26% still in single and 88 or 73% are married. However, there are 3 respondents was not answered this question, believing there might be in a status of divorced, widow or in status not willing to disclose , result as shows in Figure 4.6.

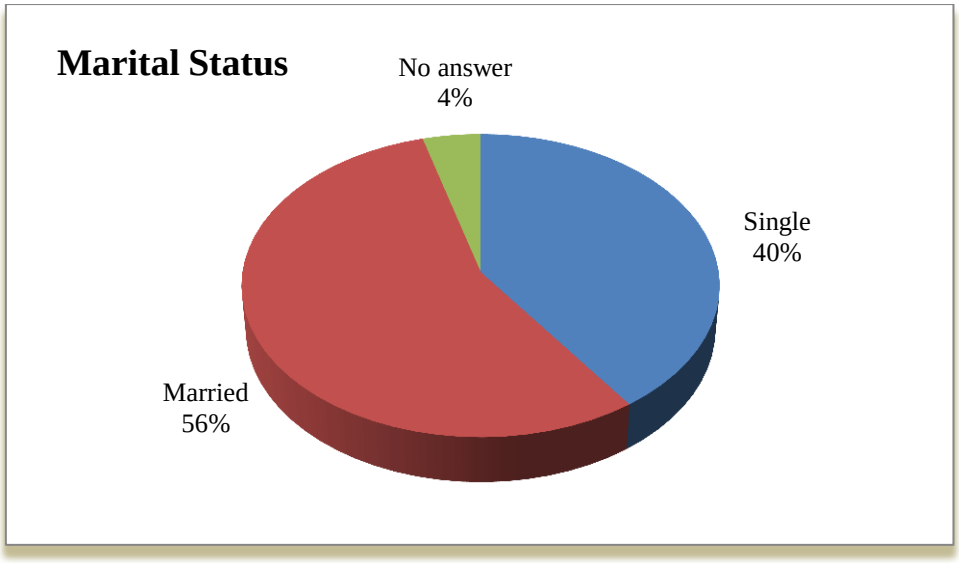


Figure 4.6
Respondent's Marital Status

The service field split to seven categories, which are private sector, government, self-employed, social worker, housewife, student and other, There are frequency of 81 or 69.2% are from private sector, 10 or 8.5% are government servant, 5 or 4.3% are self-employed, 5 or 4.3% stated they are social worker, while housewife responded with frequency of 4 or 3.4%, unexpectedly, there are 11 or 9.4% students replied the survey, suspected they are university student under industries training. Figure 4.7 shown the categories above.

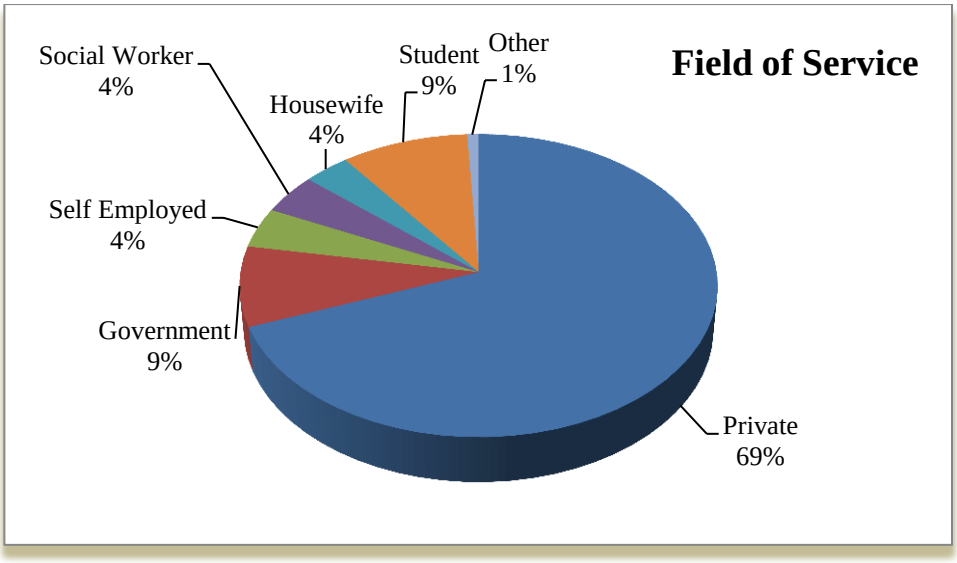


Figure 4.7
Field of Service of Respondents

The income ranges split into seven categories, which are RM1,000 or below, RM1,001 to RM3,500, RM3,501 to RM6,000, RM6,001 to RM10,000 and category of income over RM10,000 in a month. There are frequency of 22 or 19% are earning RM1,000 and below , 77 or 66% are with income between RM1,001 until RM3,500 in a month, 9 or 7.7% are held monthly income of RM3,501 to RM6,000, 4 or 3.4% are earning between RM6,001 to RM10,000, while 3 or 2.6% respondents are holding income of more than RM10,000 in a month, figure 4.8 shown the categories above.

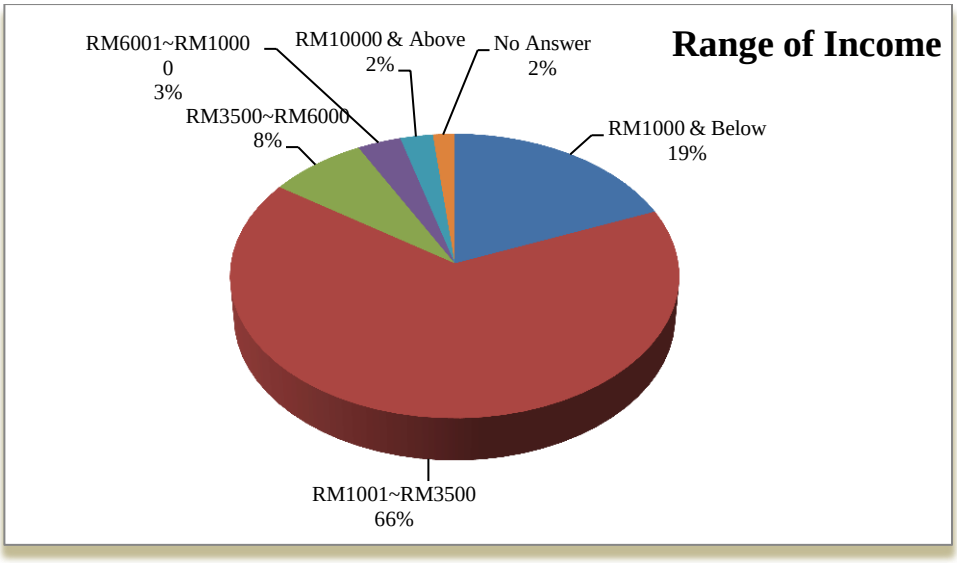


Figure 4.8
Range of Incomes

4.3 Reliability Analysis

4.3.1 Pilot Test

A pilot test has been conducted to check the reliability of the questionnaires, 10 sets of questionnaires were distributed and all returned for analysis, The data were entered into SPSS 20.0 to run Cronbach's alpha coefficient and was computed to ensure the item used to measure the construct of dependent variable and independent variables are reliable in the study.

Table 4.3 indicated the value of Cronbach's Alpha for the pilot test reliability analysis.

Table 4.3
Result of Pilot Test Reliability Analysis

Variable	**Number of Items**	**Cronbach's Alpha**	**Reliability**
Consumer Knowledge	7	0.803	Good
Consumer Attitude	6	0.607	Acceptable
Environment	9	0.717	Acceptable
Purchase Intention	4	0.935	Good

As mentioned in chapter 3, table 3.5. Reliability analysis was referred to Sekaran (2010), an accepted Cronbach's Alpha value is 0.60 and above. Meaning that the Cronbach's Alpha value which less than 0.60 should be eliminated from further analysis. The range of Cronbach's Alpha and reliability for a variety of knowledge was tested with value 0.803 considered as good, while variable of attitude obtained result 0.607 in category of acceptable. The environment was tested with value 0.717 as acceptable and dependent variable purchase intention tested with reading 0.935 in a range of good.

Above variables' result all with value 0.60 and above. Therefore, the analysis was proceed to next progress.

4.3.2 Data Collected Reliability Analysis

The data used Cronbach's alpha coefficient was computed to ensure the item used to measure the construct of dependent variable and independent variables are reliable in the study. According to Sekaran (2010), an accepted Cronbach's Alpha value is 0.60 and above. Meaning that the Cronbach's Alpha value which less than 0.60 should be eliminated from further analysis. Following Pallant (2011) procedures, initial reliability analysis of consumer attitude was 0.520 which is below the acceptable level as proposed by Sekaran (2010). Cronbach's Alpha if item deleted, than followed. As a result, two items from consumer attitude towards organic foods were deleted (namely attitude1 and attitude2) leaving four reliable items. A new result for attitude towards organic foods was presented as in the following table. Another reading of alpha values were not problematic and reported as in the Table 4.4. Based on the Table 4.4, all the Cronbach's Alpha values within the acceptable range (Sekaran, 2010).

Table 4.4
Result of Reliability Analysis

Variable	**Number of Items**	**Cronbach's Alpha**	**Reliability**
Consumer Knowledge	7	0.652	Acceptable
Consumer Attitude2	4	0.642	Acceptable
Environmental Concern	9	0.621	Acceptable
Purchase Intention	4	0.815	Good

N=117

Cronbach's Alpha value for knowledge is 0.652, while environment is 0.621 and purchase intention value is 0.815. although all above variable Cronbach's Alpha value are lower then value obtained in the pilot test, but after deletion 2 items from attitude, all variables are above acceptable range and the purchase intention still able to remain in good.

4.4 Normality Analysis

Normality test was conducted to underlying the data set to be normally distributed as mentioned in 3.5.4. This analysis generated the result of Kolmogorov-Smirnov statistic and Shapiro-Wilk statistic. According to Pallant (2002), a non-significant result (p-value > 0.05) indicates normality. If p-value is smaller than 0.05, it is quite common for sample size more than 200.

Table 4.5
Result of Normality Analysis

Variables	Skweness	Kurtosis
Knowledge	0.157	-0.487
Attitude	0.064	-0.681
Environment	0.013	-0.791
Purchase Intention	-0.313	-0.534

In Table 4.5, knowledge with result of skewness 0.157 and kurtosis (-0.487). Followed by attitude, skewness 0.064 and kurtosis (-0.681). For environment with skewness 0.013

and kurtosis (-0.791). Lastly, purchase intention with result of skewness (-0.313) and kurtosis (-0.534). Overall, skewness and kurtosis in this data are normal which is near to zero as well as the mean value between variables is within the range. The Q-Q Plot attached in Appendix D.

4.5 Descriptive Analysis

As mentioned in 3.5.2, Descriptive statistics were conducted by computing the minimum value, maximum value, mean and standard deviation of each dimension of the variables in the Table 4.6.

Table 4.6
Result of Descriptive Analysis

Variable	Mean	Std. deviation
Knowledge	3.1133	0.48745
Attitude	3.4601	0.66203
Environment	3.3644	0.42790
Purchase Intention	3.8440	0.60327

As a result, purchase intention with highest mean value of 3.8440 and the minimum value of mean at knowledge with 3.1133.. While in between, attitude tested with value of 3.4601 and environment is 3.3644.

However, standard deviation no longer hold the highest by purchase intention, the value 0.66203 at attitude is the maximum and the minimum is environment with 0.42790. While knowledge and purchase intention holding value of 0.48745 and 0.60327 respectively.

The purpose of this analysis was to attain the result for measures of central tendency and measures of dispersion of the dependent and independent variable.

4.6 Pearson Correlation Analysis

Pearson product-moment correlation coefficient was employed to measure the significant of linear bivariate between the independent variables (knowledge, attitude and environmental concern) and dependent variable (purchase intention). The following Table 4.7 report the result for correlation analysis. Correlation analysis was conducted to examine the strength for each independent variables to the dependent variable.

Table 4.7
Pearson's Correlation Analysis of Variables

	1	2	3	4
1) Attitude	1			
2) Knowledge	.170	1		
3) Environment	.205*	.258**	1	
4) Purchase Intention	.193*	.379**	.192*	1

* correlation is significant at the 0.05 level (2-tailed)
** correlation is significant at the 0.01 level (2-tailed)

Based on the Table 4.7, all independent variables (attitude, knowledge and environmental concern) had a significant positive correlation with the dependent variable (purchase intention). The attitude variable was 0.193*, knowledge was 0.379** and environment with result 0.192*. According to Correlation Coefficient Interpretation Guideline, the strength of relationship ranging from weak to strong positive relationship. In general, it can be concluded that, if the respondents had favorable perceptions regarding their attitude and knowledge of organic foods as well as favorable perception towards environmental concern, they tend to have higher intention to purchase organic foods.

4.7 Regression Analysis

4.7.1 Test of Regression Assumptions and Outliers

Hair et al. (2006) indicate four major assumptions for regression analysis, namely; linearity, normality, homoscedasticity and independence of error terms. Linearity and homoscedasticity were assessed through analysis of residuals and partial regression plots. It is observed that residuals scatter plot was roughly rectangularly distributed with most of the plots distributed at the center. Thus, linearity and homoscedasticity assumptions were not violated. Normality was addressed by checking the histogram of residuals and the normal probability plot. It was observed that residual line closely follows the straight diagonal that is shown in the plot hence, normality is not an issue. Durbin-Watson value is 1.619 which is within the acceptable range (Coakes & Steed,

2003). Beside, multicolinearity was tested through colinearity test by examining the 'tolerance' and 'variance inflation factors'. The tolerance value for attitude, knowledge and environmental concern were .943, .919 and .907 respectively, which were within the acceptable range (from 0 to 1) while variance inflation factor values were 1.060, 1.088 and 1.103 respectively which were within the acceptable range (below 10). Case wise diagnostic also was conducted to detect any outliers. Pre-test of regression suggested, outliers is not the issue.

4.8 Hypotheses Testing

In order to answer the research objectives and hypothesized correlation, multiple regression analysis was conducted. Using 117 samples with Enter method, the result of regression analysis is as follows:

Table 4.8
Result of Regression Analysis

Independent Variables		Dependent Variable Purchase Intention of Organic Foods
H1:	Knowledge of organic foods	.080
H2:	Attitude towards organic foods	.119
H3:	Environmental Concern	.338**
F Value		7.533
R2		.167
Adjusted R2		.145
Durbin-Watson		1.619

* p <.05, **p<.01

Table 4.8 summarized the result of regression analysis between attitude towards organic foods, knowledge of organic foods and environmental concern on purchase intention of organic foods. It shows that only one hypothesis were significant (namely H3), and both H1 and H2 were not significant. Only environmental concern ($\beta = .338$, $p<.01$) was found to have4 a significant and positive relationship to intention to purchase organic foods. Overall, the variance explained by the set of predictor is 16.7%. Hence, H1 and H2 not supported while H3 supported.

4.9 Summaries of Findings

According to the result, the summary of findings for this study is shown in Table 4.9.

Table 4.9
Summary of Findings

The Hypotheses		Decision
H1:	Consumers' knowledge of organic foods is a most influence with intention to purchase the organic foods.	Not supported
H2:	Consumers' Attitude is a most influence with intention to purchase the organic foods.	Not supported
H3:	Environmental concern is a most influence with intention to purchase the organic foods	Supported

CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.0 Introduction

The findings of survey results in chapter 4 were overview the study in this chapter, This chapter provides the recapitalization of findings, discussion of the Findings, discussion on Research Objectives, Implication of the Study, limitation, recommendation for future study and conclusion of the chapter.

5.1 Recapitalization of findings

The survey was conducted in the state of Kedah, the collected data came from data collected, categorized mainly from the young group with entry level salary range, mainly female and the majority of first degree level, this study more similarly to voice for the young.

Since R2 were low, there would be able to conclude that there are other factors that most influence the purchase intension of organic foods, previous researchers were selected the variable of price, health and behavior which close to human first perception toward organic foods. This study actually was made by respondents as giving the result of the relationship without including the popular variables. Only one hypothesis (H3) is supported.

5.2 Discussion of the Findings

This findings show that only one hypothesis is supported, namely the relationship between environmental concern and intention to purchase organic food. Though correlation analysis show that all independent variables have significant positive relationship on intention to purchase organic foods, the strength of relationship is too weak (ranging from .192-.379). Regression analysis revealed that only environmental concern statistically significant in explaining intention to purchase organic foods. Environmental concern only explained 17% of the variance in intention to purchase organic food which indicates there are other possible factors to be considered.

The significant result is then consistent with the previous findings of Affendi et al. (2015), Irianto (2015), Yin et al. (2010) and Ahmad & Juhdi (2008). It indicates that the consumer' s environmental concern would enhanced the possibility of consumers to adopt organic foods. It is because organic food cultivation is conducted by taking the environmental aspects into account involving the use of organic compost and manure fertilizer, and natural pest and disease control leading to minimizing the negative effects on the environment (Affendi et al., 2015). Hence, consumers with the high concern towards the environment tends to prefer environmentally friendly such as organic foods.

Surprisingly, product knowledge and attitude towards organic food were statistically insignificant to influence consumers' intention to purchase organic foods. It is postulated that product knowledge and attitude could influence intention to purchase organic foods. A close examination on mean score for these two variables revealed that the mean were 3.1133 and 3.4601 respectively. Thus, the scores were towards the disagreement to the statement. It could be concluded that, Kedahan respondents had a

very low product knowledge and attitude towards organics food and could deemed as a plausible explanation towards insignificant results.

The mean score for product knowledge indicate that respondents answer towards disagreement to the statement pertaining organic food knowledge. This is the main explanation why product knowledge statistically insignificant to intention to purchase organic food. Despite the insignificant results, this finding also consistent with the findings of Olivova (2011) among 263 Chezh's consumers that product knowledge appeared to be insignificant towards intention to purchase organic food.

Attitude towards organics food is insignificant and the result is consistent with argument of Irianto (2015) that the relationship between attitude towards organic food and intention to purchase organic food in the mixed result and still inconsistent across the studies. The result for environmental concern also against the argument of Kalafatis, Pollard, East and Tsogas (1999) that numerous studies reported low correlation between environmental concern and consumers' willingness to buy environmental-friendly product similar to organic food. Such findings are in line with the findings of Kleiner (1991), Schlossberg (1991) and Winski (1991), who concluded that there is little evidence to suggest that positive attitudes towards environmental issues are manifested in the form of actual purchase behavior.

A plausible explanation for such insignificant results were due to a weak correlation between observed variables. In addition, the majority (65.8%) of the sample of this study earned between RM1001-RM3000 per month, which is quite low in term of purchasing power capability. As organic food commonly associate with premium price, with such disposable income, organic food could be not a popular choice among

the respondents under study. Moreover, most of the respondents aged between 20-35 which is considered as young adult and apart from them are categorized as Gen-Y. As attitude toward organic food had a strong association with health conscious (Affendi et al., 2015), respondents at that age range perhaps don't put much emphasized on health product. As cited by Hoffman (2012), though millennial prefer more healthy foods but still demand for cheaper food. Hence, it is a plausible explanation to justify overall attitude towards organic food statistically fail to influence intention to purchase organic foods.

5.3 Implication of the Study

5.3.1 Theoretical Implication

This study added to existing literature that environmental concern influenced intention to purchase organic food. Using this sample, product knowledge and attitude towards organic good were found insignificant in influencing intention to purchase organic food. More importantly, this study had focused on non-price as most of the literatures had skewed the discussion on the effect of price and value related on intention to purchase organic food. Many previous research with intended the survey in factor that cannot change (price) will lead to better influence relationship result, but doesn't change the fact, Tregear et al. (1994) and Magnusson et al. (2001) also mentioned the high price is the reason for consumers to avoid from buying the organic foods, whatever how good the sale strategy being implemented, the organic foods price are still higher than

conventional foods. Thus, this study adds to the existing body of knowledge and bridge the gaps of the previous literature.

The study also concluded that product knowledge and attitude towards organic food in Kedah rather limited. Hence, it is a room for improvement, especially for the farmer and organic plant operators to manipulate the issues at hand.

5.3.2 Practical Contribution

The result also useful for future reference, not limited to researchers or academic purposes per se. The result found to be useful for further organic foods development in this area, enterprise or entrepreneur who aim to introduce organic foods in this area. The result shown Kedahan are more emphasis to environmental concern for them to consider to purchase organic foods.

Using this sample, it is suggested that plant operators and marketers are expected to know the main reasons consumers prefer organic products. Marketing programs should be directed to educate potential consumers by providing adequate information on organic product. An aggressive promotional campaign could be designed to arouse favorable attitude towards organic food among potential consumers.

5.4 Limitation of the Study

First and foremost, this study limit in term of sample size. Although the sample size in this study considered adequate to represent the Kedah population and suit the statistical requirement, the number could be increased to improve the variation explained for each construct. Due to time constraint, its limit the researcher to have a huge number of respondents.

Secondly, this study were conducted in Kedah based on cross-sectional setting. As a result, it cannot be generalized into huge population such as to represent the actual state of organic food behavior of Malaysian consumers.

Finally, this study only zoomed in into non-price determinants. Price factor was excluded in this study to avoid biases in the findings. Price determinant could be examined by another study on its own.

5.5 Recommendation and Future Research

In this study, there are several recommendations that can be reasonably forwarded for the future research. First of all, to increase the number of samples to be more representative. Interestingly, a nationwide study among Malaysian consumer could be more meaningful in understanding consumers' attitude and behavior on organic foods. The study was completed in the state of Kedah is as known as one of the agricultural state. This is potential to widen the area to Northern Peninsular or until whole nation, the result may tell us whether the opinion for Kedahan considered same with other states

or can represent either Northern region or Malaysian, comparison from other states are welcome to determine whether different lifestyle or geographic factor do influence the intention to purchase organic foods.

As the study at hand indicated that environmental concern explained less than 20% of variance in intention to purchase organic food, future study should consider other predictors. For an example, as organic foods are known as health related products, therefore, health consciousness should be considered in future study. The inclusion of price factor also could be considered in future research. Hence, it will enable researchers to make comparison whether price or non-price factors are more relevant in explaining the consumers' attitude and behavior towards organic food.

5.6 Conclusion

In conclusion, consumer product knowledge among Kedahan still arguable and at the minimum level. Due to low level of product knowledge, attitude towards organic foods also seems unfavorable among Kedahan. Based on the findings, Kedahan were at the readiness stage to adopt organic food as they already acknowledge how organic food associate to environment preservation. Using this sample, it can be predicted that if organic food operators and manufacturers could take the extra miles in educating consumers on organic food, it is could easily adopt in Malaysia context thus boosting their business profit and performance.

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