

**TELEVISION COMMERCIALS WITH HEALTHY EATING CONTENTS**

**By**

**Nurul Ain Jaini**

**THESIS**

Submitted to

KDI School of Public Policy and Management

in partial fulfillment of the requirements

for the degree of

**MASTER OF PUBLIC POLICY**

2012

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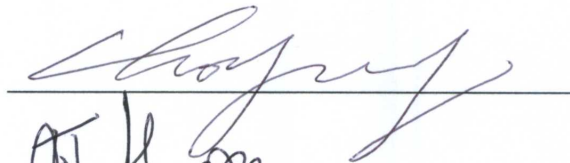
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Committee in charge:

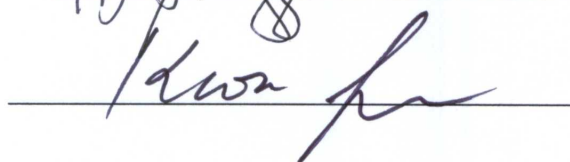
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## **ABSTRACT**

### **TELEVISION COMMERCIAL WITH HEALTHY EATING CONTENTS**

**By**

Nurul Ain Jaini

The television commercial with healthy eating messages produced by the public and private sectors have direct and indirect purpose to improve public health by practicing healthy eating habit. The information included in the television commercial from both sectors containing food nutrition and awareness on healthy food or product consumption. The objective of this study is to measure the effectiveness of the messages to the consumer attitude and behaviour from the both sectors separately. Hence, this study also aims to find out differences of the result for both sectors. Therefore, quantitative method was applied by conducting a survey for the public and private sectors' television commercials contents affect consumer attitude and behaviour through cognitive, emotional and persuasion aspects among Malaysian. The data obtained was calculated with regression linear analysis method. The result of the survey indentified 138 respondents was declared aware to both sectors television commercials. Moreover, the findings were indicated attitude had positive influences from the television commercial with slightly differences outcome. The public sector shown 2% more influence by the public sector compared to private sectors.

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## **I. Introduction**

### **1.1 Statement of problems**

Health is the most precious things in life to have a happy life. Behaviour impacts significantly on every individual's health (Lum 2010). World Health Organisation health statistics showed that food and diet contributed substantially to the health of people (Morad, Norimi cites in Master, 2007, June 28). Nowadays, it is normal for Malaysians nowadays to skip breakfast and eating late especially at night has become a sedentary lifestyle is ruining their figure and health (Simon, 2010).

In Malaysia, a healthy lifestyle campaign has been launched in 1991 until 2002 by the Ministry of Health Malaysia to promote citizen to practice healthy lifestyle. The campaign has taken place through educational program at school and work place and involvement by institutions, the public and private sector. It has divided to two phases to focus in increase the awareness and behavioural changes among the citizen. The first phase of the campaign, starting from 1991 to 1996 focusing to promote the campaign itself and the second phase in 1997 until 2002 focusing on the behavioural change. However, the campaign which spend millions of ringgit spent on healthy lifestyle have gone waste as it stated 60% of the population either overweight or obese ("Healthy lifestyle campaigns fail to solve weighty problem" 2009).

While, the Minister of Health Malaysia, Datuk Seri Liow Tiong Lai declared that 14.9% of Malaysian were diabetic and this was high compared to just 8% of the population in 1996 ("Higher sugar rice, lower diabetes rate," 2010). Lack of awareness in practicing healthy eating practice among Malaysian has shown the weakness of the healthy eating lifestyle introduced by the Ministry of Healthy Malaysia. Current article in local newspaper reporting on the increasing number of Malaysian are overweight or obese. The correlated



problem with obese is the probability to have diseases such as heart attack, high blood pressure, diabetic, low immunity system is high and would affect to work productivity and in some way to Malaysian economy. Therefore, with high acknowledgment of this problem, Ministry of Health recently produced TV commercial enclose several tips in practicing healthy way of eating and warning messages to increase public awareness about healthy food consumption.

The behavioural change encouragement on healthy eating practices has included in the Healthy Lifestyle Campaign conduct by the Ministry of Health Malaysia. According to IDS unit, Non-Communicable Disease (NCD) such as cardiovascular disease, diabetes and cancer are the major causes of admissions and deaths in government hospitals (cited in Ministry of Health Malaysia (n.d.). Lum (2010) cites that, the incidence of NCD in Malaysia is frightening. About 70% of the outpatient attendances in 2008 in the healthcare facilities of the Health Ministry are related to NCD. The prevalence of diabetes has increased from 8.3% in 1986 to 14.9% in 2006 for adults, aged 30 years and above, and increase of 80% within a decade. Consequently, healthy eating practices among Malaysian need to effectively promote in order to have healthy community. Healthy eating normally relates to strict diet and tasteless food. Yet, Lum (2010) mentions it is important to eat the right food and not to over consume. He also advised that, it is vital that the food is low in sugar, salt, and fat.

Individual health awareness and healthy eating information are guiding an individual to the right decision in food preference. The change of lifestyle less exercise and eat heavy late dinner are the causes to the obesity and unhealthy lifestyle among Malaysians (Simon, 2010). Lack of information in educating the people about healthy eating practicing has drawn the gap for them to consume dietary properly. The importance to have effective communication channel to spread out the information is significant to aware the public to

mind on their' food consumption. The content of the messages should be correlated to the target audience to assure it is meet the main objective. Therefore, the sender should consider the persuasion element in the message.

The efforts in promoting healthy eating among Malaysian are not only seen to the public sector. Food manufacturers play their roles in improving the quality of life by producing healthy food in the food market. Some of the companies also show in-depth support by sponsoring healthy event for the society. Additionally, many food product commercials show in the television containing healthy messages and nutrition claims in promoting healthy food consumption such as food or beverages with less sugar, less cholesterol, free calories, high mineral and vitamin and fruits as alternative food. The examples of the some food manufacturers are Jacobs, Horlicks, Kenny Rogers Roster etc. Meanwhile, Quaker oats are the most permanently promotes healthy food in Malaysia market in preventing heart disease through interactive campaigns activities.

The marketing strategies use by the food manufacturer in changing consumer mind on tasteless healthy food to enjoyable healthy food is giving the consumer in food choices. The different approach apply by the public and private sector in the promoting heating eating behavioural through TV commercial has encourage this paper to compare the affect to consumers' attitude and behavioural on healthy eating practicing.

## **1.2 Purpose of the study.**

The reason of this study is to study any relationships exist between public and private sectors' television commercials to the public eating behaviour. The failure of the healthy lifestyle campaign by the Ministry of Health Malaysia has led this study to underneath the process of learning and persuasion in advertising in the case of the public and private sectors in Malaysia. In addition, the reason to examine the differences behind the public and the

private sectors' TV commercial in persuading consumer to practice healthy food consumption is to study how the public perceptions concerning the TV commercial differ.

### **1.3 Significance of the study.**

This paper provides qualitative and quantitative method of study to obtain accurate result for this study. This study is expecting be able to help to improve the quality of public campaign advertisement in television and give better understanding about behavioural changes towards public campaign. In Malaysia, the government agencies are given priority to broadcast any commercial to Radio Television Malaysia with lower cost. Therefore, the opportunity should be taken wisely by the public sector by spreading a message in effective way to the public.

The challenge in promoting public campaign is to get in touch with wide public and produce the most effective material to meet the target. Advertisement in television is the most applicable in this high technology era to get people attention in the short time. However, some theories claimed that, the way how the advertisement is presenting is the most important in producing an effective advertisement. The effectiveness of the advertising is depends on how the viewer evaluate the contents.

### **1.4 Research Questions**

Recent study attempt to study the effective of public and private television commercials' with healthy eating messages contents by following these research questions;

1. How do the consumer perceive about the healthy eating television commercials produced by the public and the private sectors?
2. How emotionally does the consumer regarding the television commercials produced by the public and the private sectors' which containing healthy eating messages?

3. How persuasive is the television commercials with healthy eating contents produced by the public and private sectors in persuade consumer to eat healthy food?
4. How the public and the private sectors' television commercials' with healthy eating messages bring effect to consumers' attitude?
5. How the attitude toward the public and the private sectors' television commercials' with healthy eating messages bring effect to consumers' behaviour?
6. How the repetitions on healthy eating messages in the television commercials affect consumers' attitude on consuming healthy food?

## **II. Literature Review and Theoretical Background**

### **2.1 Literature Review**

The lack of knowledge and awareness about nutrition and health are the reasons why people unconsciously consume food in unhealthy way. Parker (2003) declared that the regulatory agencies and food marketers have responded to the this interest with product labelling and advertising claims that inform consumers of vital information ranging from the product's fat content to claim its consumption may decreases the likelihood of disease such as cancer. In Malaysia, the government commonly provide nutrition information, warnings, and diet tips in the healthy eating campaign TV commercials. Hence, nowadays many TV commercials produced from the food manufactures providing nutrition disclosure. It is explicitly to persuade people to choose food that benefit to health. The nutrition information is purposely to educate people to take care on the food content. However, Krugman(1965) claim that, television can be a challenging medium for disclosures because of the passivity of consumer involvement in advertising (cited in Hoy and Andrews (2004)).

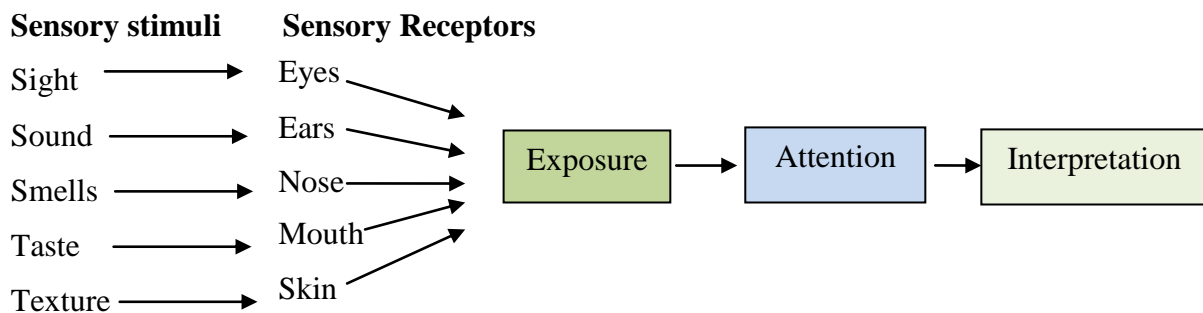
In advertising, communication occurs when the consumer has accepted and internalized the information in some way (Schultz, Tannenbaum, Allison 1995). Many organizations use television as the medium to sending messages to the broader public. Schultz, Tannenbaum and Allison defines advertising is delivering effective selling messages to prospective buyers of a product or services (1995). Target audience is normally clearly identify by the advertiser in assure the message is achieving the main goals.

The power of television advertising is because, it contains the elements of sight, sound, and motion, which can be combined to create a variety of advertising appeals and executions (Belch and Belch 2009). However, it is works dependent on how the message is accepted, stored, and later used to make decisions (Schultz, Tannenbaum and Allison 1995).

The consumers use the information to make better choices. Thus, to be able make well-informed decisions, they must have access to information that is both relevant and accurate (Howlett, Burtion, and Kozup 2008). The right and clear information is helping the consumer to consume food with the right potion and proper nutrition contain.

The process of the perception according to the Solomon is a process which the consumer absorbs sensations and then uses these to interpret the surrounding world (2008). To understand the perception, one has to define the meaning of sensation. Sensation refers to the immediate response of our sensory receptors (eyes, ears, nose, mouth, fingers) to basis stimuli such as light, color, sound, odor, and texture(Solomon 2008). Then perception is the process by which people select, organize, and interpret these sensations. Every human being had gone through the learning process in many forms (Solomon 2008). Our mental have few stages in processing information before adapting it.

FIGURE 1: An overview of the perceptual process



**Source: Solomon, Michael R. (2008), *Consumer Behavior: Buying, Having and Being*, 8<sup>th</sup> ed., New Jersey: Pearson Prentice Hall. pp 53.**

Emotional according to Pham and his colleagues, both physiological changes and mapping of stimuli on existing mental models are automatic reactions and are fairly consistent across individuals. People are unaware of the automatic processes, yet this initial

unconscious emotional reaction cues affect-congruent materials in memory (Micu and Plummer 2010). Thus, Emotion is a major factor in persuasive advertising that aims to change view-points and not simply to demonstrate the logic implication of data (O'Shaughnessy and O'Shaughnessy 2007). Belch and Belch (2009) posited emotional appeals relate to the customers' social and /or psychological needs for purchasing a product or service. Advertisers for many products and services view rational, information-based appeals as dull (Belch and Belch 2009).

Persuasion is becoming more important in advertising (O'Shaughnessy and O'Shaughnessy 2007). An effective advertisement has the power to persuade people to change attitude and behaviour. According to Jones, it not only competent to persuade people repeatedly buys a product but also amplifies people knowledge and transforms the public's attitude (1990). In making a persuasive advertisement relies on the individual receiver of the communication, the communication or information source and the content or presentation of the message (O'Shaughnessy and O'Shaughnessy 2007).

In 1920s, theories claim that television advertising is the most effective tools to persuade audience at the highest level of attention (Heath and Stipp 2011). The effective meaning in this context is the viewer has been persuaded by the advertisement. Somehow, Krugman theories states that, public involvement or attention exist only when the advertisement is attractive to according to the viewer (Heath and Stipp 2011). Each individual have different kind of interest and reason when they watching television. The content and approach use of the advertisement is the most matter in persuade behavioural change of the viewer (Heath and Stipp 2011).

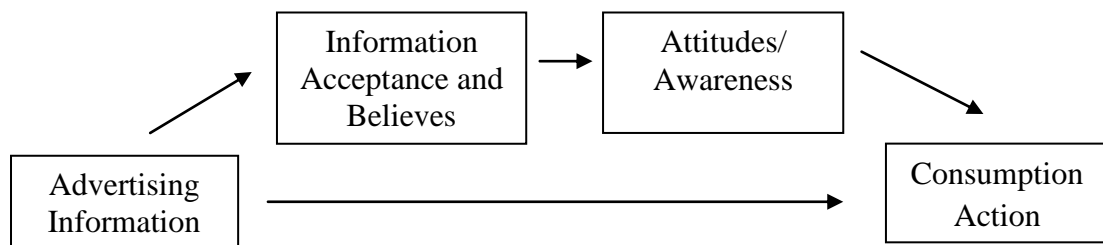
The consumer behaviour according to Belch and Belch (2004), the process and activities people engage in when searching for selecting, purchasing, using, evaluating and

disposing of products and services so as to satisfy their needs and desires. Meanwhile, Schultz, Tannenbaum and Allison posited that, consumer behaviour includes both the physical act of buying as well as the mental decision process used to make the decision to buy (1995).

In understanding consumer needs Abraham Maslow psychologist has posited the hierarchy of needs theory postulates five basic levels of human needs, arranged in hierarchy based in their importance (Belch and Belch 2004). Advertising campaigns can then be designed to show how a brand can fulfil these needs.

Changing awareness, attitudes, and beliefs are all important steps of the path towards behavior change, but true success does not occur until someone takes action (Weinreich 2011). Feick, Herrman, and Warland (1986) assert that two general approaches used to study the influence of information on food and nutrition behavior: one focuses on pre-purchase information seeking behavior, and the second evaluates more directly the effects of nutrition education (or information) on subsequent knowledge and dietary behavior (Jensen and Kesavan 1993). The essential feature of the consumer decision process is to recognize that advertising psychological stimulus in the consumer decision making process; it may have both direct and indirect effects (Jensen and Kesavan 1993). The consumer decision making process is shown in Figure 1.

FIGURE 2 - Model of the Consumer Decision Making Process.



**Source: Jensen, H.H and Kesavan, T. (1993), “Source of Information, Consumer Attitudes on Nutrition, and Consumption of Dairy Products,” *The Journal of Consumer Affairs*, Vol.27, Issue 2, pp. 357-375**



Figure 1, indicates that, introduction of the nutrition information into the market can alter consumers' attitudes toward health and nutrition, depending upon the individuals' ability to absorb and process information (Jensen and Kesavan 1993). Knowledge of how consumers acquire and use information from external sources is important to marketers in formulating communication strategies (Belch and Belch 2004). Marketers are particularly interested in processes of perception; 1) how consumers sense external information, 2) how they select and attend to various sources of information and 3) how this information is interpreted and given meaning (Belch and Belch 2004). Thus, perception is an individual process; it depends on internal factors such as a person's beliefs, experiences, needs, moods, and expectations (Belch and Belch 2004).

Consumer exposed too many advertisements in a day. As competition for the limited attention of consumers is even more a key issue in today's crowded markets and media, it is important to understand how and when consumers devote attention to commercial stimuli, and what determines their attentional strategies (Peiters, Rosbergen and Hartog 1996). However, O'Shaughnessy and O'Shaughnessy (2007) claims that, for many advertisers, attention getting has become the focus importance, so, persuasive content is hardly considered, on the assumption that visibility via the repeated exposure effect is all that is needed.

## **2.2 Theoretical Background**

### **2.2.1 Basic Model of Communication**

The basic model of communication is the. Four others are the major communication functions and processes: encoding, decoding, response and feedback (Belch and Belch 2004). The process illustrates the process of information distribute works from sender to receiver.

According to Belch and Belch (2004), “the communication process begins when the source selects words, symbols, pictures and the like, to present the message that will be delivered to the receiver. This process known as encoding, involves putting thought, ideas, or information into a symbolic form”.

The message could be in many forms such as verbal or nonverbal, oral or written or symbolic. Message must be put into a transmittable form that is appropriate for the channel of communication being used (Belch and Belch 2004). The channel is the method by which the communication travels from the source or sender to the receiver (Belch and Belch 2004). Decoding is the process of transforming the sender’s message back into thought (Belch and Belch 2004). In this process, it could be some distraction or problem in sending the problem called as noise (Belch and Belch 2004).

### **2.2.2 The Elaboration Likelihood Model of Persuasion**

The Elaboration Likelihood (ELM) explains “the process by which persuasive communications leads to persuasion by influencing attitudes” (Belch and Belch 2004). “The model views validity as an objective property of information instead of a function of the perceptions of the recipient” (O’Shaughnessy and O’Shaughnessy 2007). Therefore, the purpose of the content use is crucial important in this model.

This model illustrates two basic routes to persuasion or attitude change 1) Central route to persuasion and 2) Peripheral route to persuasion. According to Belch and Belch, these two routes are important in preparing the content for the advertisement based on the consumer involvement (2004). The central route, the receiver is viewed as very active, involved participants in the communication process whose ability and motivation to attend, comprehend, and evaluate messages are high. The attitude change here comes about though

thoughtful reflection on information received (O'Shaughnessy and O'Shaughnessy 2007). In the other hand, the recipient under the peripheral route is viewed as lacking the motivation or ability to process information and is not likely to engage in detailed cognitive processing (Belch and Belch 2004).

### **2.2.3 Hierarchy of Effect Model**

The Hierarchy of effect model claiming that, persuasion requires that the message be first learned and then accepted by the target audience (O'Shaughnessy and O'Shaughnessy 2007). The target audience are assumed to go through certain mental stages: (a) awareness/attention; (b) comprehending the message; (c) coming to accept the message as true; (d) acting on this learned knowledge when there is an incentive to do so (O'Shaughnessy and O'Shaughnessy 2007).

### **2.2.4 Persuasive communication theory**

The persuasive communication according to Sperber and Wilson, "...communication achieved some 'unparaphrasable' effects: more is communicated than is actually encoded and receivers (the target audience) extract more (or less) from an ad than is encoded (as cited in O'Shaughnessy and O'Shaughnessy 2007). The approach sees persuasion as dependent on; 1) the individual receiver of the communication; 2) the communication or information source; 3) the content or presentation of the message (O'Shaughnessy and O'Shaughnessy 2007). A message that makes an audience imagine using and possessing the product can lead to direct self-persuasion (O'Shaughnessy and O'Shaughnessy 2007).

Firstly, O'Shaughnessy and O'Shaughnessy (2007) explain the individual receiver of the communication become dependent to persuasion because gaining attention, repetition of

the message, distraction, cognitive and emotional background, assimilation and contrast effects, anchor points, ego involvement, inducing self-persuasion, interpretation problems, need for relevant perspective, rhetoric and changing perspectives and asking questions. This would be happen to receiver because there is intended content in any communication but individual receivers may get a little more or little less than intended: a little more because any interpretation of a communication, whether visual or verbal or both, requires some conjecture to fill in the gaps; a little less in that the meaning that the source intended will not be completely taken in by the individual receiver (O'Shaughnessy and O'Shaughnessy 2007).

Second dependent is the communication or information source. The credibility and attractiveness of the communication source are the key elements in persuasion (O'Shaughnessy and O'Shaughnessy 2007). A credible source is perceived as trustworthy and as possessing relevant technical expertise (O'Shaughnessy and O'Shaughnessy 2007). The influence of perceived trustworthiness and technical expertise (credibility) lies in the appeal to values, so the message is internalized (O'Shaughnessy and O'Shaughnessy 2007). However, to have the attractiveness, there must be a perceived potential for sharing, as this is the basis for getting on with someone (O'Shaughnessy and O'Shaughnessy 2007).

### **2.2.5 Behavioral Learning Theory**

The behavioral learning Theory is divided by two approaches; classical conditioning and operant conditioning. The classical conditioning explains that learning is an associative process with an already existing relationship between a stimulus and a response (Belch and Belch 2004). In this theory, there are two important factors for learning to occur through the associative (Belch and Belch 2004). First is the unconditioned stimulus and conditioned stimulus must be close in the time and space process be close in the time and space process.

Second factor is repetition, or the frequency of the association (Belch and Belch 2004). The concept is the more often the unconditioned and conditioned stimuli occur together, the stronger the association between them will be (Belch and Belch 2004).

The second approach is the operant conditioning views the individual as a passive participant in the learning process who simply receive stimuli (Belch and Belch 2004). This approach claims that, the individual must actively operate or act on some aspect of the environment for learning to occur (Belch and Belch 2004). Through the learning process, an individual will exposed to reinforcement, the reward of favourable consequence associated with a particular response, is an important element of instrumental conditioning (Belch and Belch 2004).

### **2.2.6 Cognitive Learning Theory**

The Cognitive Learning Theory studies about the learning process and decision making has dominated the field of consumer behavior in recent years (Belch and Belch 2004). Thus, it also states that behavior change is influenced by factors within the individual and the environment (Weinreich 2011). The cognitive processes such as perception, formation of belief about brands, attitude development and change, and integration are important to understanding the decision making process for many types of purchases (Belch and Belch 2004). This theory claims that there are external factors have been identified that may influence consumer decision making such as culture, subculture, social class, reference group and situational determinants (Belch and Belch 2004).

### **2.2.7 Health Belief Model**

This model explains the conditions that are the necessary for behavior change to occur (Weinreich 2011). An individual take action to prevent, screen for do control a disease or condition, according to Weinreich (2011) are based on following factors; 1) perceived susceptibility, 2) Perceive severity, 3) Peceived benefits, 4) Perceived barriers, 5) cues to action and 6) self-efficacy.

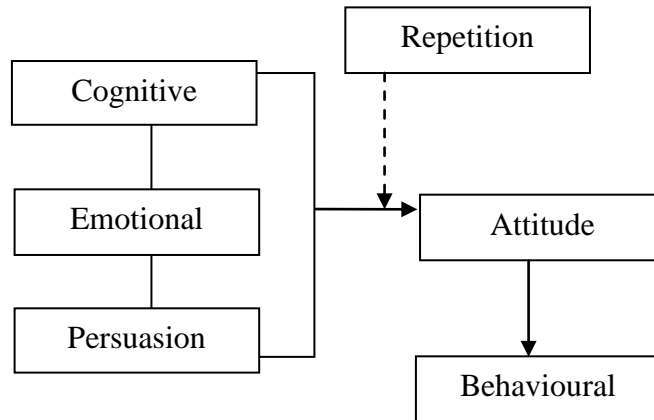
### **2.2.8 Psychoanalytic Theory**

The Psychoanalytic Theory posited by Sigmund Freud to study consumer motives (Belch and Belch 2004). This theory had a strong influence on the development of modern psychology and on explanations of motivations and personality (Belch and Belch 2004). Hence, Belch and Belch, it has also been applied to the study of consumer behavior by marketers interested in probing deeply rooted motives that may underlie purchase decisions (2004). Many motives for purchase and/or consumption may be driven by deep motives one can determine only by probing the subconscious (Belch and Belch 2004).

### III. Hypotheses Development

#### 3.1 A Model for This Study

FIGURE3: A Model of the effectiveness of television commercials containing healthy eating messages to attitude and behaviour: Case of public sector vs. private sector.



#### 3.2 Hypothesis Development of This Study

This paper suggested a model to investigate the effectiveness of the healthy eating television commercials produced by the public and the private sectors. A survey was distributed to collect data on consumer's perspective on healthy eating messages in the television commercials by the public and the private sectors. The study are following relates hypothesis

- 1) Gain awareness towards concerning healthy eating practice through television commercials.;
- 2) The consumers' emotions as attitude change factors in consuming healthy foods;
- 3) Consumer perspectives in television commercial promote healthy foods consumption.;
- 4) Attitude motivates consumer to consume healthy foods;
- 5) An effective healthy eating television commercial changed the consumers' behaviour;
- 6) The repetition elevates customers' intention in practicing healthy food consumption.

### **3.2.1 Gain awareness towards concerning healthy eating practice through television commercials.**

To understand perception, Belch and Belch (2004) states it is the process of 1) how consumers sense external information, 2) how they select and attend to various sources of information and 3) how this information is interpreted and given meaning. Therefore, the first hypothesis for this study is to investigate the relationship between the public and private sectors' television commercial to consumer attitude.

*H1: The consumer perceive cognitively differ on the healthy eating messages delivered in the public and the private sectors' television commercials.*

*H1a: Consumers' cognitive toward the public sector's television commercials containing healthy eating messages has positive influence on consumers' attitude.*

*H1b: Consumers' cognitive toward the private sector's television commercials containing healthy eating messages has positive influence on consumers' attitude.*

### **3.2.2 The consumers' emotions as attitude change factors in consuming healthy foods.**

This study is interested to study the relationship between consumer emotions with the television commercials contents. Emotional has been said as the motives for a consumer to attach into something. For example, people who are happy with the commercial content, have bigger potential to have positive attitude changes toward the message. Thus, the hypotheses to measure emotional effectiveness are stated as below.

*H2: Consumers' emotions affect differently after watching the television commercials produced by the public and private sectors in delivering healthy eating messages.*

*H2a: Consumers' emotion of the public sector's television commercials containing healthy eating messages has positive influence on consumers' attitude.*



*H2b: Consumers' emotion of the private sector's television commercials containing healthy eating messages has positive influence on consumers' attitude.*

### **3.2.3 Consumer perspectives in television commercial promote healthy foods consumption.**

This study observes the relations between variables persuasion and attitudes depend on contents judgements by the related consumers. In Kardes's (1993) formulation, indirect persuasion attempts can be advantageous because consumers must self-generate the implicitly stated claim (McQuarrie and Philips 2005). For example, for the healthy eating messages in the food commercial has higher tendency to consume healthy food because the "good for health" claim. Though, the visual and words used in deliberate in attract consumer awareness regarding the consequences of healthy food consumption in both commercials are stressing on practicing healthy food consumption. Intentionally to investigate the level of persuasion that affects the attitude change towards healthy food consumption by following hypotheses below.

*H3: The consumer perceive differ concerning persuasiveness of the healthy eating messages in the public and private sectors' television commercials.*

*H3a: The persuasiveness of the healthy eating contents in the public sectors' television commercials have positive relation with the consumer attitude in consuming healthy food.*

*H3b: The persuasiveness of the healthy eating contents in the private sectors' television commercials have positive relation with the consumer attitude in consuming healthy food.*

### **3.2.4 Attitude motivates consumer to consume healthy foods.**

To understand, the motivation behind healthy foods consumption, attitudes are measured as the tendency of having mind set about healthy eating messages. The consumer who has influenced by the healthy eating messages in the television commercial are seen have higher potential to change their behaviour. Therefore, the survey asked two questions regarding consumer intention and tendency towards healthy eating consumption purposely to measure the attitudes level.

*H4: Consumers' behavior has relation with the attitude in eating healthy food after watching TV commercials containing healthy eating messages.*

### **3.2.5 An effective healthy eating television commercial changed the consumers' behaviour.**

The consumers with positive perception in cognitive, emotional and persuasion have explicit on healthy eating practicing. Thus, they are persuaded by the TV content by adapting healthy eating style. According to the persuasion communication theory, persuasion itself depends on; 1) the individual receiver of the communication; 2) the communication or information source; 3) the content or presentation of the message (O'Shaughnessy and O'Shaughnessy 2007). Most model (e.g., Akerloff 1970; Ippolito 1988; Khilstrom 1974; Senauer, Kinsey, and Roe 1986; Wilde 1980) applied to evaluate effects of information make explicit the process of acquiring information as well as the mechanism for affecting consumer behaviour (Jensen and Kesavan 1993).

*H5: Public sector' TV commercials with healthy eating messages have stronger influence to the consumers' attitude compare to the private sectors' television commercials.*

### **3.2.6 The repetition elevates customers' intention in practicing healthy food consumption.**

The repetition has claims as one of the factors for learning to occur through the associative process (Belch and Belch 2004). The television commercials with the health eating messages are trying to convince consumer to use the nutrition information given as guideline in making decision on food choices. Most of the condition, the food and public campaign television commercials emphasized on the nutrition claim such as free cholesterol, less sugar, rich mineral and fibre contained on certain food or product. Besides, both public and private sector TV commercial indirectly illustrate the significant of being healthy via model's face expression and body language. McQuarrie and Philips cited that the use of indirect persuasion attempt in ad pictures has increased even more rapidly than their use in ad words (2005).

However, repetition on the same TV content might also affect consumer' level of attention and decrease the interest to eat healthy food. This paper will conduct a survey to determine how the consumer reaction after receive repeatedly the health information from the television commercials.

*H6: Repetition on healthy eating messages from the television commercials is not interrelated with consumer attitude to eat food good for health.*

## **IV. Methodology**

### **4.1 Data collection of quantitative research.**

The research questionnaires was distributed through online and printed to the 214 respondents. The research questions were transformed to the Qualtrics online survey website to enable respondents to access the survey easily. The respondents who were interested to participate in this survey were directed to website's link. The survey's link was distributed through individual emails and personal Facebook and Twitter accounts. Furthermore, realizing the limitation of online survey considering the user who couldn't attain to internet connection, 51 respondents were taken the survey from printed form. The survey form was spread out to private companies' employees, a secondary school and university's students.

### **4.2 Development of the Research Questionnaire**

The objective of this paper is to compare the effectiveness of public and private sectors' television commercials with healthy eating messages in persuade respondents to consume healthy food. The evaluation is divided to several variables: cognitive, emotional, persuasiveness, repetition, attitude and behavioral. It is obligatory for the respondents to evaluate each variable according to the public and the private sectors' television commercials that containing healthy eating messages.

Considering the possibility for respondents' confusion and misunderstanding in giving evaluation for the public and the private sectors' television commercials, few screenshots was exemplify in the introductory part. In addition, it is intentionally to recall respondents' remembrance of the television commercials before continuing with the survey. A part of that, the introduction part provide brief explanation about the purpose of the study

and specific definition on the “television commercial with healthy eating messages” for this study.

The questionnaire is divided into 4 sections, the first section is to emphasize on self awareness towards healthy eating practice and messages. It also practically used to warming up the respondents’ memory with questions relates to practicing healthy eating, overall perception and respondents awareness towards the healthy food consumption’s television commercials. There are also two questions were systematically set with to stop the respondents with less awareness towards the commercials from continuing the survey. The final results are expected from only the pertinent respondents who are certainly answered “Yes” for the following questions, “*Have you ever watched any TV commercials with healthy eating messages produced by the public sector?*” and “*Have you ever watched any food TV commercials with healthy eating messages produced by the private sectors?*”

The difference of the public and private sectors’ television commercials effects questions were allocated in the second and third sections of the questionnaire. Each question to measure the variables are equipped to evaluate the public and private sectors television commercials. Finally, the last section in the questionnaire is designated for seeking respondents’ demographic information such as gender, age, occupation, personal monthly income and the highest education.

#### **4.2.1 Dependent variables**

Attitude. Two questions are purposely to evaluate attitude transform by the respondents after exposed to the television commercials. The respondents were asked to indicate level of agreement with the following statements “*I intend to consume healthy food*

*after watching TV commercial with healthy eating message” and “Overall, I tend to change my attitude such as consume healthy food after watching TV commercial with healthy eating message”.* The answers were on a 5-point scale as following 1- “Strongly disagree”, 2- “Somewhat disagree”, 3- “Neither agree nor disagree”, 4-“Somewhat agree” and 5- “Strongly agree”.

Behavior is assess throughout 5 point Likert scale that indicating the respondents’ level of agreement for a statement *“I actually changed my eating behavior by consuming healthy food right after I watched TV commercial with healthy eating messages”.* The relevance of this statement is to inspect the efficiency of the commercials promote the healthy eating consumption messages in changing the respondents’ behavior. For consistency answer, the pointing scale starts from strongly disagree to strongly agree.

Repetition factors are relevant in this paper in order to study the consumers’ attendance by level of attention and intention development after exposed to the television commercials. 5 point Likert scale was given to the respondents to determine the level of attention given towards the repetition of healthy eating messages in the television commercials. The second items are the intention to consume healthy food increase after exposed repeatedly to the healthy eating television commercials. The respondents are required to states theirs level of agreement from *“Strongly disagree”* to *“Strongly agree”*. These items would also to observe the relationship exist in the repetition with the independents variables in comparing to the public and the private sectors.

#### 4.2.2 Independent variables

Cognitive. Three questions were asked purposely in evaluate respondents' cognitive value towards the television commercial containing healthy eating messages. The questions are as follow 1- *“How easy the message delivery easy to understand healthy eating messages”*, 2- *“How important the messages to be broadcast in television”* and 3- *“How the commercials boost respondents interest to consume healthy food”*. As for comparative study on the public and the private sectors television commercials, the evaluation for each question comes with set for both sectors.

For standardization 5- point Likert scale answers prepared for the public and the private sectors' questions in relation to the measure the cognitive factors for the TV commercials containing healthy eating messages.

Emotional. The emotions come before thought, and an emotional response can occur even when people have no awareness of the stimuli that caused it (Micu and Plummer 2010).

factor is measured by asking three questions that related to respondents' emotional while watching the television commercial by public and private television commercials containing healthy eating messages such as exciting, attractive and worry. The questions also providing question for public and private sectors. The result is expecting to identify the existence respondents' emotional differ between these two sectors.

In this part again, five point Likert scale such as not very excited to very excited, not very attractive to very attractive and strongly disagree to strongly agree.

Three questions were asking on the persuasiveness of the expression and visual used in delivering healthy eating messages. The 5 point Likert scale answers, to measure how the respondents perceive on the television commercials contents from “not very persuasive” to

“very persuasive”. The relevant of investigating the level of persuasiveness of expressions (such as, moderate diet, less cholesterol, less sugary, high mineral, multivitamin, fibre and etc.) and visual delivered the healthy eating messages in the television commercial to identify relative relation between the messages and attitude and behavioral change. At the same time to compare the influence of each public and private sectors commercial bring the most influence to attitude and behavioral change.



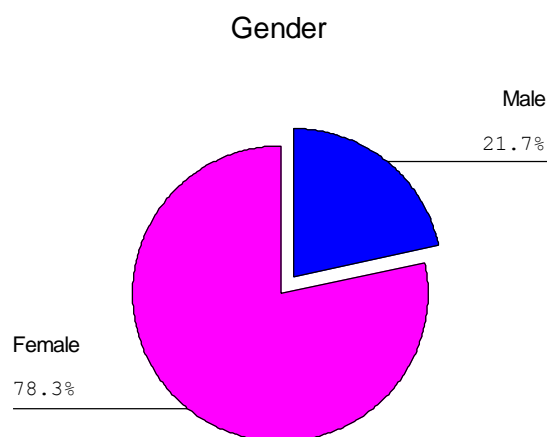
## V. Data Analysis and Interpretation of Results

### 5.1 Descriptive analysis

214 Malaysian has accessed to the survey's website link, however, only 138 has completed the questionnaire with awareness towards the TV commercials. As much 56 respondents has excluded from the final analysis because failed to completed the questionnaire by skipped several questions. Also, 20 respondents were excluded from the data analysis due to the failure to answer that purposely ask to obstruct the respondents who were answered "NO" on the awareness question for the TV commercials' public or public sectors. The data was collected, generated and interpreted by using the statistical software SPSS 11.

**Gender.** Among the qualified respondents 108 were women (78%) and 30 were men (21.7%) has participated in this survey. The percentages for the gender are as shown in the pie chart below.

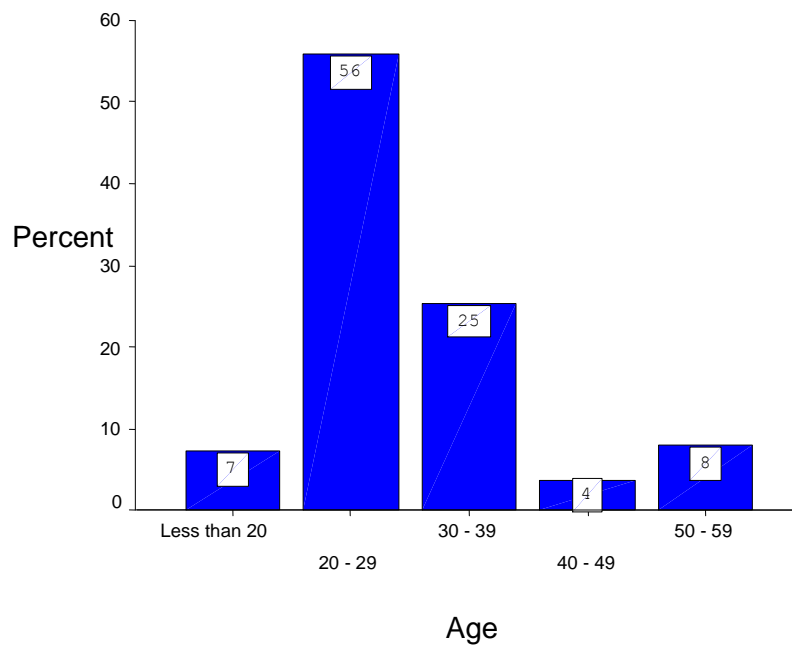
FIGURE 4: Gender



The questionnaire was decided to organize the respondents into numerous aged groups. The data collected that, 7.2 percent were from the group of age under 19 years old

category, 55.8 percent were fell in the group aged 20 – 29, while, 25.4 percent were among aged 30 – 39. Respondents in group aged 40 – 49 were 3.6 percent, respectively 8.0 percent respondent stated in the group aged 50 – 59 and non of the respondents were in aged group more than 60 years old. The survey distributions are illustrates as chart below.

FIGURE 5: Aged group



**Personal monthly income.** The respondents were given 10 income range groups to choose. According to the data collected, it stated that, 14.5 percent if the respondents were belong to the group income range started from RM 0.00 – RM999.00, RM1000.00 – RM1499.00 income group is 14.5 percent has participated in the survey, 18.8 percent of respondents position themselves into the RM1500.00 – RM 1999.00 income group category. The RM2000.00 – RM2499.00 income group is 16.7 percent, while 10.1 percent were belong to the RM250.00 – RM2999.00 income group, 9.4 percent claim they were belong to monthly income group RM3000.00 – RM3499.00 and RM3500 – RM3999 income group per month is 3.6 percent. The income group for RM4000 – RM4499 is 5.1 percent, 2.2 percent of the

respondents monthly income are fell in the RM4500 – RM4999 category, lastly 5.1 percent were in the group of monthly income over than RM 4999.

Regarding **highest education** under demographic category, the respondents among the PMR/Holder are 6.5 percent respondents, respondent with Certificate/ Technical and Vocational certificate of Malaysia stated 1.4 respondents, STPM/A' Level/ Matriculation/ Diploma holder group were 23.9 percent. The respondents with highest education, bachelor degree were 36.2 percent, while Master Degree holders were 12.3 percent and PhD holder were 2.2 percent.

Demographic segmentation for current **occupation** has 6 groups such as student, employed, work on my own (Business etc), retired, unemployed and other. The data collected that, 18.1 percent were belong to the student group, 71 percent were belong to employed group, 5.8 percent were work on my own (business etc) group, retired were 0.7 percent, unemployed number of respondents were 2.9 percent and 1.4 percent were other category.

This study also required respondents to evaluate self-eating practices on the 6 given statements. The data collection revealed result as table 1 below.

**TABLE1: Self assessment toward healthy eating practice.**

	Not at all like me	Not much like me	Somewhat like me	A lot like me	Just like me
<b>I don't care about my eating lifestyle because I am satisfied with my health</b>	16.7%	35.5%	27.5%	15.2%	5.1%
<b>I don't care to practice moderate diet because I enjoy eating food</b>	16.7%	39.1%	27.5%	13%	3.6%
<b>I will not spend time to check over the food nutrient whether it is good or not good before choosing a food</b>	19.6%	33.3%	28.3%	14.5%	4.3%
<b>My routine doesn't allow me to practice healthy eating style</b>	18.8%	29%	37%	11.6%	3.6%
<b>I've practiced healthy eating before, and I gave up</b>	26.8%	24.6%	32.6%	10.9%	5.1%
<b>I want to practice healthy eating but I don't how to start</b>	16.7%	25.4%	26.8%	21%	10.1%

## 5.2 Hypothesis testing.

### a) Hypothesis testing of H1

*H1: The consumer perceive cognitively differ on the healthy eating messages delivered in the public and the private sectors' television commercials. – Rejected*

Therefore, Table 2 and Table 3 estimated the attitudes effects of the cognitive perception on TV commercial with healthy eating contents from the public and the private sectors. It indicated the positive relation occurred for both sector TV commercial. Therefore, it rejected the H1 hypothesis by meaning the consumer perceive cognitively the same on the healthy eating messages delivered in the public and the private sectors' TV commercials.

**b) Hypothesis testing of H1a**

*H1a: Consumers’ cognitive toward the public sector’s television commercials containing healthy eating messages has positive influence on consumers’ attitude. – Accepted*

The result from the linear regression of 1-tailed analysis found the p value is less than 0.05,  $p=.000$  (R-square = .237). The significant of the result is to accept the H1a hypothesis by means it indicated there is positive correlation occurred between attitude to eat healthy food and cognitive effects from watching healthy eating messages TV commercial produced by the public sector.

TABLE2: Regression Analysis of correlation between cognitive effects of healthy eating TV commercial produced by the public sector on the attitude.

1) Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.486(a)	.237	.231	1.11283

- a. Predictors: (Constant), Cognitive by public sectors
- b. Dependent: Attitude by public sectors.

2) ANOVA(b)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	52.200	1	52.200	42.151	.000(a)
Residual	168.422	136	1.238		
Total	220.622	137			

- a. Predictors: (Constant), Cognitive by public sectors
- b. Dependent Variable: Attitude by public sectors.

3) Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.290	.602		5.468	.000
Cognitive by public sectors	.483	.074	.486	6.492	.000

a. Dependent Variable: Attitude by public sectors.

**c) Hypothesis testing of H1b**

*H1b: Consumers' cognitive toward the private sector's television commercials containing healthy eating messages has positive influence on consumers' attitude. - Accepted*

While, table 3 revealed the result of R Square of the regression model is 0.231. So, the attitude was affected 23% by the cognitive factors of TV commercial containing healthy eating messages that produced by the private sectors. Therefore, it is supported the hypothesis H1b, since the results indicated that the p value is less than the 0.05 (5%) significant level.

TABLE3: Regression Analysis of correlation between cognitive effects of healthy eating TV commercial produced by the private sector on the attitude.

1) Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.486(a)	.236	.231	1.19195

- a. Predictors: (Constant), Cognitive by private sectors
- b. Dependent Variable: Attitude by public sectors.

## ANOVA(b)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	59.795	1	59.795	42.087	.000(a)
Residual	193.220	136	1.421		
Total	253.015	137			

- a. Predictors: (Constant), Cognitive by private sectors  
b. Dependent Variable: Attitude by public sectors.

## 2) Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.093	.628		4.923	.000
	Cognitive by private sectors	.514	.079	.486	6.487	.000

- a. Dependent Variable: Attitude by public sectors.

**d) Hypothesis testing of H2**

*H2: Consumers perceive emotionally differ from the television commercials produced by the public and private sectors in delivering healthy eating messages. – Rejected*

Table 4 and Table 5 confirmed the existence of positive relation on emotional effects and eat healthy food' attitude for the public and the private sectors. With that reason, the alternative hypothesis H2 is rejected.

**e) Hypothesis testing of H2a**

*H2a: Consumers' emotion of the public sector's television commercials containing healthy eating messages has positive influence on consumers' attitude.-Accepted*

The table 4 below represents the results for emotional assessment of the TV commercials containing healthy eating messages announced by the public sector affects

respondents' attitude toward healthy food consumption. Result revealed  $p < 0.0005$ , and supporting the alternative hypothesis H2a with (r-squared .356)  $p = .000$ .

TABLE4: Regression Analysis of correlation between cognitive effects of healthy eating TV commercial produced by the private sector on the attitude.

Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.600(a)	.361	.356	1.01847

- a. Predictors: (Constant), Emotional by public sector
- b. Dependent Variable: Attitude by public sector.

1) ANOVA(b)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	79.553	1	79.553	76.694	.000(a)
Residual	141.070	136	1.037		
Total	220.622	137			

- a. Predictors: (Constant), Emotional by public sector.
- b. Dependent Variable: Attitude by public sector.

2) Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.257	.453		7.197	.000
Emotional by public sector.	.568	.065	.600	8.758	.000

- a. Dependent Variable: Attitude by public sector.

**f) Hypothesis testing of H2b**

*H2b: Consumers' emotion of the private sector's television commercials containing healthy eating messages has positive influence on consumers' attitude.* -Accepted

The result from the table 4 below showed that p-value is 0.000 and it is less than the significant level used for this study 0.05 (5%). The significant of the test fail to reject the H2b hypothesis of there is the emotional effect of the private sector's television commercial



containing healthy eating messages has positive influence to consumers' attitude. The r-square result revealed is 0.389, it means that 38% attitude influenced by the emotional effects. The remaining 62% of the attitude is influenced by the other factors that omitted from this study.

TABLE5: Regression Analysis of correlation between emotional effects of healthy eating TV commercial produced by the private sector on the attitude.

1) Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.624(a)	.389	.385	1.06610

- a. Predictors: (Constant), Emotional by private sector.
- b. Dependent Variable: Attitude by private sector.

2) ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	98.443	1	98.443	86.614	.000(a)
	Residual	154.572	136	1.137		
	Total	253.015	137			

- a. Predictors: (Constant), Emotional by private sector.
- b. Dependent Variable: Attitude by private sector

3) Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.532	.501		5.058	.000
	Emotional by private sector	.643	.069	.624	9.307	.000

- a. Dependent Variable: Attitude by private sector.

**g) Hypothesis testing of H3**

*H3: The consumer perceive differ concerning persuasiveness of the healthy eating messages in the public and private sectors' television commercials. – Rejected*

The result from the linear regression model shows from the Table 5 and Table 6 confirmed the positive correlation between the emotional factor obtain from watching the public and private sectors' TV commercials containing healthy eating messages toward attitude. It means that, the H3 hypothesis is not supported.

h) Hypothesis testing of H3a

*H3a: The persuasiveness of the healthy eating contents in the public sectors' television commercials have positive relation with the consumer attitude in consuming healthy food.*

– Accepted

Based on the results found from the Table 5 showed the r-square is 0.468 (47%). It means that, there is 47% of the attitude is influenced from the persuasion on the healthy eating contents in the TV commercial produced by the public sector. The results also indicated the p-value is 0.000. As the p-value obtained is lower than the significant level 0.05, it is fail to reject the H3a hypothesis by meaning there is positive correlation between the persuasion effect and consumer attitude in consuming healthy food.

TABLE6: Regression Analysis of correlation between persuasion effects of healthy eating TV commercial produced by the public sector on the attitude.

1) Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.684(a)	.468	.464	.92882

- a. Predictors: (Constant), Persuasion by public sector
- b. Dependent Variable: Attitude by public sector

2) ANOVA(b)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	103.293	1	103.293	119.730	.000(a)
Residual	117.329	136	.863		
Total	220.622	137			

- a. Predictors: (Constant), Persuasion by public sector
- b. Dependent Variable: Attitude by public sector

3) Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.137	.375		8.367	.000
Persuasion by public sector	.581	.053	.684	10.942	.000

- a. Dependent Variable: Attitude by public sector

**i) Hypothesis testing of H3b**

*H3b: The persuasiveness of the healthy eating contents in the private sectors' television commercials have positive relation with the consumer attitude in consuming healthy food. -*

Accepted

The r square of the regression model is 0.421. This means that 42% attitude was influenced by the persuasion from the private sectors' TV commercials of healthy eating contents. The remaining 58% attitude was influenced by the others effects that were not absent from this study. P-value is at 0.000 lower than the 0.05 (significant level 5%). It

proved that, there is positive correlation between the attitude and the effect of persuasion on the TV commercial contents produced by the public sector.

Table7: Regression Analysis of correlation between persuasion effects of healthy eating TV commercial produced by the private sector on the attitude.

1) Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.649(a)	.421	.416	1.03815

a. Predictors: (Constant), Persuasion by private sector

b. Dependent Variable: Attitude by private sector

2) ANOVA(b)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	106.441	1	106.441	98.762	.000(a)
Residual	146.574	136	1.078		
Total	253.015	137			

a. Predictors: (Constant), Persuasion by private sector

b. Dependent Variable: Attitude by private sector

3) Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.972	.426		6.976	.000
Persuasion by private sector	.584	.059	.649	9.938	.000

a. Dependent Variable: Attitude by private sector

**j) Hypothesis testing H4**

*H4: Consumers' behavior has relation with the attitude in eating healthy food after watching TV commercials containing healthy eating messages. – Accepted*

The p-value show from regression model below (table 7) is  $p=0.000$ . This significant result is supporting H4 hypothesis by confirming there is positive relation occurred between attitude and actual behavior. The model summary table below is stated the r square value is

0.391 (39%). It means that, the actual behavior 39% was correlated with the attitude of eating healthy food.

TABLE8: Regression Analysis of correlation between persuasion effects of healthy eating TV commercial produced by the private sector on the attitude.

1) Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.626(a)	.391	.387	1.29020

a. Predictors: (Constant), Attitude

b. Dependent Variable: Behavior

2) ANOVA(b)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	145.559	1	145.559	87.443	.000(a)
Residual	226.388	136	1.665		
Total	371.947	137			

a. Predictors: (Constant), Attitude

b. Dependent Variable: Behavior

3) Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.747	.635		1.177	.241
	Attitude	.820	.088	.626	9.351	.000

a. Dependent Variable: Behavior

**k) Hypothesis testing of H5**

*H5: Public sector' TV commercials with healthy eating messages have stronger influence to the consumers' attitude compare to the private sectors' television commercials. - Accepted*

The results revealed from the table 8 below shows the p-value for the public and private sector are slightly difference on consumers' attitude result. The p-value for private is 0.002, and p-value for public sector is 0.000. Thus, public sector's TV commercials with healthy eating messages has influenced more to the consumers' attitude of healthy food consumption by only 2% differences compared with TV commercials containing healthy

eating messages with private sectors influence on consumer attitude. However, both sectors show significant answer by proven there are positive relationship between TV commercials with healthy eating attitude.

TABLE9: Regression Analysis of difference effect of healthy eating TV commercial by the public and private sectors on consumers' attitude.

1) Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.719	.517	.510	.87998

a. Predictors: (Constant), Public sector, Private sector

2) ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	112.066	2	56.033	72.359	.000
	Residual	104.540	135	.774		
	Total	216.605	137			

a. Predictors: (Constant), Public sector, Private sector

b. Dependent Variable: Attitude.

3) Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.042	.512		2.035	.044
	Private sector	.321	.102	.300	3.142	.002
	Public sector	.515	.107	.461	4.830	.000

a. Dependent Variable: Attitude.

1) Hypothesis testing of H6

*H6: Repetition on healthy eating messages from the television commercials is not interrelated with consumer attitude to eat food good for health.- Rejected.*

The regression linear table (table 9) show r square value is 0.389 and p- value is 0.000. The results of p-value in this study is supporting hypothesis H6 because it is located lower than the significant level 0.05 (5%). This significant results approved there is correlation

occurred between attitudes 39% with the repetition of the TV commercial containing healthy eating messages on TV commercials' public and private sectors

TABLE10: Regression Analysis of correlation between attitudes of eating healthy food with the repetition of the TV commercial containing healthy eating messages.

1) Model Summary(b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.624(a)	.389	.385	.98622

- a. Predictors: (Constant), Repetition
- b. Dependent Variable: Attitude

2) ANOVA(b)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	84.327	1	84.327	86.699	.000(a)
Residual	132.279	136	.973		
Total	216.605	137			

- a. Predictors: (Constant), Repetition
- b. Dependent Variable: Attitude

3) Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.319	.418		7.942	.000
	mean.repeat	.566	.061	.624	9.311	.000

- a. Dependent Variable: Attitude

## **VI. Conclusion**

### **6.1 Discussion**

This study revealed the result that supporting the general idea that, there is significant effect of public and private sectors' TV commercials containing healthy eating messages to consumer attitude and behavior. Referring to the proposed model, each variable such as cognitive, emotional and persuasion are the independent variables to measure the effectiveness of the healthy eating contents in the TV commercials of public and private sectors.

The results from the regression analysis indicated that the respondents' attitude is positively affected by the cognitive perception perceive from the TV commercials healthy eating messages. The questionnaire regarding the healthy eating contents for cognitive elements was to measure the level of understanding to the message, important of healthy food consumption and the interest to practice healthy eating lifestyle. In that reason, it confirmed there is no contrary on respondents' answer between the public and private sectors'. The respondents perceive that, the healthy eating messages in the public and private TV commercials are containing cognitively effect to their attitude in eating healthy food.

The result showed the emotional is also effect to the respondents' attitude significantly positive for the public and the private sector TV commercial containing healthy eating messages. It means, there is no different relation occurred was found from the results. There were three questions utilized to measure emotional perceive by the respondents such as excitement, attractiveness and worries toward the healthy eating messages in TV commercials. Therefore, from the results we conclude that, the TV commercials with healthy eating messages from the public and private sectors' emotionally perceived from the respondents.



Regression analysis result for the persuasion disclosed the positive relationship exist in between the TV commercial with healthy eating messages with respondents attitude of eat healthy food for public and the private sectors. Respondents perceived that, the TV commercials from the public and a private sector were delivery persuasive healthy eating messages and was persuaded to eat healthy food.

The attitude assessment attained from watching TV commercials produced by the public and the private sectors that hold healthy eating messages is positively effect to the respondents' behavior in eating healthy food. The attitudes were measured from the combination of respondents responds on attitude they perceived from public and private sectors in the survey.

The regression analysis result indicated there are no different results in comparing the influence of the public and private sectors' TV commercials to respondents' attitude of eating healthy food. To measure the effectiveness the cognitive, emotional and persuasion results was combined separately according to each sectors. And then, we compared the relation of each group to the attitude of eat healthy food. The public sector shows more significantly influence the respondents' attitude compared to the TV commercials produced by the private sectors. Yet, the different was very little at 2% differences.

The effect of repetition on respondents' attitude of eating healthy food showed from the result is confirming the positive relation has occurred. The respondent was asked to assess themselves regarding repetition effects to their level of attention on the healthy eating contents and the intention gaining to eat healthy food after exposed to the TV commercials repeatedly. It means that, the repetition of the TV commercial of healthy eating contents was also contributed to affect the respondents' attitude in eating healthy food.

## **6.2 Limitation and Further research**

This study provides little statistical analysis about the relations between the public and the private sectors' healthy eating persuasion TV commercials among Malaysian attitude and behavior. However, the result of this study is not specifically study the relation the cognitive, emotional and persuasion to certain group that may have stronger relation to healthy food consumption. This is because, lack of data to identify specific target group relates to this research.

Besides, time limitation and distance barrier has become major problems to obtain diverse samples that able to represent Malaysian as whole for this study. The bigger the numbers of the samples participate, the higher the chances to assume correctly the current situation. Hence, the limitation faced during conducting online survey is to assured the participants to responses due to respondents' availability to internet accessibility. Even though, technology invention capable internet connection accessed via devices such as cell phone disconfirmed immediate responses from the respondents since normally it is utilize for leisure and as entertainment. This matter should be considered for future research.

The model in this study use to measure the relation among attitude and behavior towards the consumer perception on the public and the private sectors TV's commercial promoting healthy foods consumption. On the other hands, further study may broaden study for others marketing media such as printed, radio and product packaging encourage healthy eating lifestyle to varieties groups through offline survey method. In addition, focusing in other factors that may convinced Malaysian eating norms and decision making in food consumption such as culture and lifestyle.

## Appendix

## Survey's questionnaire

Dear participants, This questionnaire is to compare and observe the effectiveness of TV commercials with healthy eating messages which has been produced by the government (public sector) and the private sector in influencing people's eating attitude and behaviour. This is a voluntary research for the purpose of formulating a master degree's thesis.

To assist you in classifying each sector's TV commercials in this study, we provide the examples of TV commercial's screen shots as below. However, this study is not specifically designed for any brands. Respondents are highly recommended to read the information below before continue to the questions. Thank you.

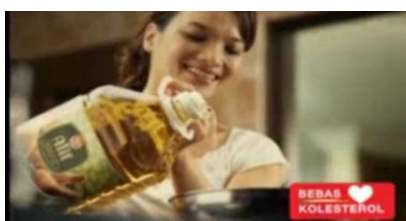
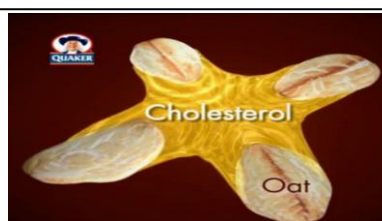
### What does TV commercial with healthy eating messages means in this study?

TV commercial promotes healthy eating by choosing healthy food such as less sugar, less calories, free cholesterol, low fat, mineral, fibre, vitamins etc.

### The public sectors' TV commercials with the healthy eating messages.



### The private sectors' TV commercials with healthy eating messages.



Section 1: Awareness towards healthy eating practice and messages (such as food with free cholesterol, less calories, low sugar, high mineral, fibre etc.)

1.1 How many times in a week, do you think of practicing healthy eating lifestyle?

- Never
- 1-2 times a week
- 3-4 times a week
- 5-6 times a week
- More than 6 times a week

1.2 How willing are you to change your daily menu to healthy food (such as food with free cholesterol, less calories, low sugar, high mineral, fibre etc.) with reason of maintaining good health?

- |                             |                           |                                   |                    |                         |
|-----------------------------|---------------------------|-----------------------------------|--------------------|-------------------------|
| Definitely will<br>not<br>① | Probably will<br>not<br>② | Neither will nor<br>not will<br>③ | Probably will<br>④ | Definitely<br>will<br>⑤ |
|-----------------------------|---------------------------|-----------------------------------|--------------------|-------------------------|

1.3 Have you ever watched any TV commercials with healthy eating messages produced by the public sector?

- Yes (*Please continue to next question.*)       No (*We ended our survey here. Thank you.*)

1.4 Have you ever watched any food TV commercials with healthy eating messages produced by the private sectors?

- Yes (*Please continue to next question.*)       No (*We ended our survey here. Thank you.*)

1.5 How likely are you watch TV commercials with healthy eating messages?

- |                  |          |                                |        |             |
|------------------|----------|--------------------------------|--------|-------------|
| Very<br>unlikely | Unlikely | Neither likely<br>nor unlikely | Likely | Very likely |
|------------------|----------|--------------------------------|--------|-------------|

1.5.1 The public sector's TV commercial	①	②	③	④	⑤
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1.5.2 The private sector's TV commercial	①	②	③	④	⑤
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Section 2: Perception towards TV commercials with healthy eating messages (such as food with free cholesterol, less calories, low sugar, high mineral, fibre etc.)

2A. This part is to seek respondent's opinion towards the TV commercials with healthy eating messages produced by the government (public sector) and the private sectors.

2.1 How easy is it to understand the healthy eating information delivered in the TV commercials?

	Very difficult	Difficult	Neither easy nor difficult	Easy	Very easy
2.1.1 The public sector's TV commercial	①	②	③	④	⑤
2.1.2 The private sector's TV commercial	①	②	③	④	⑤

2.2 In your opinion, how important are TV commercials with healthy eating messages to remind you to consume healthy food?

	Very unimportant	Unimportant	Neither important and unimportant	Important	Very important
2.2.1 The public sector's TV commercial	①	②	③	④	⑤
2.2.2 The private sector's TV commercial	①	②	③	④	⑤

2.3 After watching the TV commercials with healthy eating messages, how did it affect your level of interest to consume healthy food?

	Decrease considerably	Decrease somewhat	Neither decrease nor increase	Increase somewhat	Increase considerably
2.3.1 The public sector's TV commercial	①	②	③	④	⑤
2.3.2 The private sector's TV commercial	①	②	③	④	⑤

2.4 While exposed to the TV commercials with healthy eating messages, how excited were you towards the healthy eating information?

	Not very excited	Not excited	Neither excited nor not excited	Excited	Very excited
2.4.1 The public sector's TV commercial	①	②	③	④	⑤
2.4.2 The private sector's TV commercial	①	②	③	④	⑤

2.5 In your opinion, how attractive is the healthy eating messages delivered in TV commercials?

	Not very attractive	Not attractive	Neither attractive nor not attractive	Attractive	Very attractive
2.5.1 The public sector's TV commercial	①	②	③	④	⑤
2.5.2 The private sector's TV commercial	①	②	③	④	⑤

2.6 I feel worried about my eating style after watching the TV commercial with healthy eating messages.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Very agree
2.6.1 The public sector's TV commercial	①	②	③	④	⑤
2.6.2 The private sector's TV commercial	①	②	③	④	⑤

2.7 How persuasive is the healthy eating expression (such as moderate diet, less cholesterol, less sugary, high mineral, multivitamin, fibre and etc.) delivered in the TV commercial have influenced you to consume healthy food?

	Not very persuasive	Not persuasive	Neither persuasive nor not persuasive	Persuasive	Very persuasive
2.7.1 The public sector's TV commercial	①	②	③	④	⑤
2.7.2 The private sector's TV commercial	①	②	③	④	⑤

2.8 How persuasive the visual deliver through TV commercial with healthy eating messages in influenced you to consume healthy food?

	Not very persuasive	Not persuasive	Neither persuasive nor not persuasive	Persuasive	Very persuasive

2.8.1 The public sector's TV commercial	①	②	③	④	⑤
2.8.2 The private sector's TV commercial	①	②	③	④	⑤

2.9 Please indicate how effective is the persuasiveness of healthy eating messages in TV commercials produced by the government (public sector) and the private sector.

2.9.1 How persuasive do you think the TV commercial with healthy eating messages produced by the public sector in influencing you to consume healthy food?

Not very persuasive    1    2    3    4    5    Very persuasive

2.9.2 How persuasive do you think the TV commercial with healthy eating messages produced by the private sector in influencing you to consume healthy food?

Not very persuasive    1    2    3    4    5    Very persuasive



2B. This part would require your opinion based on your experience watched repeatedly the TV commercials containing healthy eating messages produced by the government (public sector) and the private sectors.

2.10 Please indicate the degree of your attention level towards the contents after being repeatedly exposed to TV commercial with healthy eating messages?

No attention at all	Less attention	Natural	More attention	Fully pay attention
①	②	③	④	⑤

2.11 When I was exposed to TV commercial containing healthy eating messages repeatedly, my intentions to consume healthy food is high.

Strongly disagree	Disagree	Neither disagree and agree	Agree	Strongly agree
①	②	③	④	⑤

Section 3: Attitude and behavior towards healthy eating messages in TV commercials.

3A. The objective of this part is to observe respondent's attitude and behavioral changes based on how attentive respondents to the healthy eating messages from the public and the private sectors' TV commercials.

3.1 I intend to consume healthy food after watching TV commercial with healthy eating message.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
3.1.1 The public sector's TV commercial	①	②	③	④	⑤
3.1.2 The private sector's TV commercial	①	②	③	④	⑤

3.2 Overall, I tend to change my attitude such as consume healthy food after watching TV commercial with healthy eating message.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
3.2.1 The public sector's TV commercial	①	②	③	④	⑤
3.2.2 The private sector's TV commercial	①	②	③	④	⑤

3.3 I actually changed my eating behavior by consuming healthy food right after I watched TV commercial with healthy eating messages.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
3.2.1 The public sector's TV commercial	①	②	③	④	⑤
3.2.2 The private sector's TV commercial	①	②	③	④	⑤

3B. This part is to evaluate respondent's **EATING STYLE** according to the following statements.

3.4 Based on the following statements, please choose the most accurate answer which describes you.

	Not at all like me	Not much like me	Somewhat like me	A lot like me	Just like me
I don't care about my eating lifestyle because I am satisfied with my health	①	②	③	④	⑤
I don't care to practice moderate diet because I enjoy eating food	①	②	③	④	⑤
I will not spend time to check over the food nutrient whether it is good or not good before choosing a food	①	②	③	④	⑤
My routine doesn't allow me to practice healthy eating style.	①	②	③	④	⑤
I've practiced healthy eating before, and I gave up	①	②	③	④	⑤
I want to practice healthy eating but i don't how to start	①	②	③	④	⑤

## Section 4 - Demographic

### 4.1 Gender

- Male  Female

### 4.2 Age

- Less than 20  40 – 49  
 20 – 29  50 – 59  
 30 – 39  60 and over

### 4.3 Occupation

- Student  Employed  
 Works on my own (Business etc)  
 Unemployed  
 Housewife Others(Please specify )  
\_\_\_\_\_

### 4.4 Personal monthly income (approximately)

- Less than RM1000  RM3000 – RM3499  
 RM1000 – RM1499  RM3500 – RM3999  
 RM1500 – RM1999  RM4000 – RM4499  
 RM2000 – RM2499  RM4500 – RM4999  
 RM2500 – RM2999  Over than RM 4999

### 4.5 Highest education

- UPSR holder or below  STPM/ A' Level/ Matriculation/ Diploma holder  
 PMR/ LCE Holder  Bachelor Degree holder  
 SPM/ SPM (V)/ O' Level/ MCE/ Holder  Master Degree holder  
 Certificate/ Technical and Vocational Certificate/ Malaysian Skills certificate (SKM) holder  PhD holder

In accordance with our privacy policy we will keep your personal information as anonymous and confidential with any individual or organization.

Thank you for your participation!

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