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UTeM

Factor Affect the Purchasing Intentions  
of UTeM's FPTT Undergraduates  
toward Dietary Supplements  
Consumption

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FACTOR AFFECT THE PURCHASING INTENTIONS OF UTEM'S FPTT  
UNDERGRADUATES TOWARD DIETARY SUPPLEMENTS CONSUMPTION

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The thesis is submitted in partial fulfillment of the requirements for the award of  
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## SUPERVISORS' CONFIRMATION

'I/ We, hereby declared that I/We had read through this thesis and  
in my/our opinion that this thesis is adequate in terms of scope and quality which  
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## DECLARATION

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## **DEDICATION**

I would like to dedicate the appreciation to my family members who supported me from spiritually and financially, beloved supervisor and panel who guided me throughout the research, housemates and course mates that assisted me through the journey of research.

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## ABSTRACT

Dietary Supplements products were often misunderstood by people as medicine. But, in recent years, more and more people were starting to take on dietary supplement. This was due to the changes in lifestyle of people all over the world. As the trend of healthy lifestyle rose, dietary supplements became one of the main products consume by consumers. So, this study was conducted to study the attitude of consumers towards the consumption of dietary supplements. Data were collected by using questionnaires distribute to 265 respondents in City Campus of UTeM. The respondents were undergraduates of FPTT of UTeM. There were a few factors that influenced the purchasing intention of FPTT's undergraduates. The factors were the attitude, health awareness and advertisement. There was a significant relationship between the factors to the consumers' purchasing intention towards dietary supplement. In the research, the researcher used a few data analysis method to analyse the data. The methods used were Pearson's correlations, Cronbach's Alpha, and Multi Regressions. The results of the analysis show that out of the three variables researched which were attitude, health awareness and advertisement, all of them were having significant impact toward the purchasing intention of UTeM's FPTT undergraduates in dietary supplement products. This result of the study contributes exceptional judgement to marketers and dietary supplements manufacturers in Malaysian market.

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Background Of The Study

The term “Dietary Supplement” was first known used on 1967. According to Merriam-Webster Online Dictionary, “Dietary Supplement” was medically defined as a product taken orally that contains one or more ingredients that are intended to supplement one's diet and are not considered food, specifically according to the Dietary Supplements Health and Education Act (DSHEA): a product other than tobacco that was taken by mouth, that contained one or more vitamins, minerals, herbs or other botanicals, amino acids, substances supplementing the diet by increasing the daily dietary intake, or a concentrate, constituent, metabolite, extract, or combination of these, that was not represented as a food or as constituting a meal or the sole item of the diet, and that contains as part of its labelling the words dietary supplement.

The term supplement meant something that completes or makes an addition. Merriam (2013), suggesting that dietary supplement may be taken as part of a complementary food product that one consumes to maintain general good health. According to Joe (2005), a growing body of scientific evidence supported the argument that certain foods such as health-enhancing foods could improve human health. Health-enhancing foods were defined as natural or manufactured foods or



food ingredients, which conferred specific health-enhancing benefits beyond their basic nutritional functions. It was also considered the functional food and beverage category one of the most important drivers of new product development in recent years. Many supplements contained active ingredients that have strong biological effects in the body. This could make them unsafe in some situations and hurt or complicate your health. For example cases like using supplement along with medications, substitute supplements for prescription medicines and took too much of the supplements such as vitamin A, Vitamin D and iron.

Dietary supplements were placed in a special category under the general umbrella of foods as opposed to drugs. Unlike drugs, supplements were not intended to treat, diagnose, prevent, or cure diseases. That meant supplements should not make claims, such as reduces arthritic pain or treats heart disease. Claims like these could only legitimately be made for drugs, not dietary supplements (United States Food and Drug Administration, 2006). DSHEA provided for use of three types of other claims, as appropriate, on the labels of dietary supplements – nutrient contented claim, health claims, or structure-function claims. Nutrient contented claims pertain to relative amounts of nutrient levels in dietary supplements, e.g. “high” or “good source of calcium,” based on guidelines provided by United States Food and Drug Administration (FDA). Health claims expressed the effect of a dietary supplement on preventing or reducing the processes of a disease or other health-related condition. Examples of health claims included reduced the risk of osteoporosis (or other disease) or did not promote tooth decay. Structure-function claims were often included on labels of herbal products. Statements on structure and function cannot be false or misleading. However, if the claims were unsupported, that would potentially make them false and misleading.

Young adults were a key segment for dietary supplements not just in terms of market size, but also in terms of their lifestyle and dietary habits. There was a growing consensus that health interventions were required to improve nutrition decision among young consumers according to Brennan et al. (2010). The market size of vitamins and dietary supplements for the younger segment in Malaysia had reached US\$115 million, comprising 22 percent of the total vitamins and dietary supplements sales in 2012, and that number was expected to have a promising increase in the future.

Paulius (2013) stated that Malaysia's increase in disposable income and rise in consumption had led to a rise in deterioration in consumption of healthy products which in turned had seen a gradual rose in cardiovascular diseases. This was not a unique problem to Malaysia as countries same as Malaysia too regularly experienced changes in lifestyle and created new challenges for healthcare sector. Lifestyles had become increasingly sedentary lifestyle and followed with high calorie and low nutrient foods which were often the cheaper and more convenient choices for consumers. Unhealthy diet, physical inactivity, and tobacco use were to be blamed for these trends, which were resulting in greater probability of developing diabetes, heart disease, and cancer in adulthood.

According to The Star (2014) Science Advisor to the Prime Minister, Tan Sri Zakri Abdul Hamid, said new findings from British medical journal, The Lancet, showed that 49 percent of women and 44 percent of men in this country were found to be obese. Malaysia was rated heavyweight at 45.3% of its population. Rachel. G. M., (2014) stated that Malaysia is ranked sixth in the Asia-Pacific region for obesity and tops list in South-East Asia for both obesity and diabetes according to Prof Dr. Mohd Ismail Noor, The president of Malaysia Society for the Study of Obesity, during a press interview. Due to the increasing in obesity in Malaysia, the market in dietary supplement was increasing rapidly as the population was started to realise on their health which due to obesity. Thus, the growth of dietary supplement industry increased lineally to the market in a rapid pace.

The research was conducted at the Faculty of Technology Management and Technopreneurship (FPTT) of Universiti Teknikal Malaysia Melaka (UTeM). According to the official website of Universiti Teknikal Malaysia Melaka (UTeM), the university which was incorporated in December 2000 is the 14th Institution of Higher Learning (IHL) in Malaysia. The Faculty of Technology Management & Technopreneurship (FPTT) was established on 19th March 2009 and had started its operations at the City Campus, in the heart of the World Heritage City of Historic Melaka.

FPTT is the sixth faculty to offer programs at Bachelor Degree level at UTeM. With its establishment, the faculty integrated a business and technology approach in enhancing the knowledge and skills of undergraduates. The FPTT curriculum was

developed to address issues and challenges in managing the force of globalization, rapid pace of technological changes, market and competition, product complexity, pressure of production cost, high cost and risk of research and development, and government regulations and market diversity.

Thus, FPTT played a vital role in creating professionals at technology-oriented companies, large firms' employees, and founders of start-ups companies with knowledge in the areas of both technology management and technopreneurship. By diversified the courses into both functional and practice-based, graduates were competent with the skills in technical marketing, managing technical human resources, and leadership and communication.

A unique feature was that the program incorporates internship which requiring students to do industrial attachment for 24 weeks. This provided students with invaluable working experience even before they graduated and got them ready to face the society once they graduated. The combination of classroom lectures and real life exposure enhance the employability of the graduates and got the students to be ready and learn to be adapting to the real society before they actually go for it. FPTT management team was headed by a Dean, assisted by two deputy deans and three departmental heads together with principal assistance registrar. The three departments were Department of Technology Management, Department of Technopreneurship and Department of Post-graduate Studies.

The reason FPTT was chosen in this research study as the location to conduct survey was due to the focus of the study needs respond from higher education institutions such as FPTT who were actively alert to changes in the world and their surrounding and thus being aware to them as they were in the age of growing into adulthood. Besides, UTeM aimed to be one of the world's leading innovative and creative technical universities. With this target, the undergraduates must surely obtain the best and fastest education in the campus thus they were the best participants for the research. Meanwhile, FPTT was located in the city centre Melaka which was a state that is very focus on healthy life style and cleanliness of the city. As one of the historical state of Malaysia, Melaka must maintain the overall historical benefits. With the direction of Melaka City's principle, FPTT must follow the principle as well thus train their undergraduates into the people who can manage

the principle. Therefore, due to these reasons and convenience of collecting the data, FPTT was set as the research location to conduct the questionnaire distribution. Also, the researcher believed that the respondents in FPTT will understand the concept of consumption of dietary supplement and even a lot of them were taking them as to their health's concern.

## **1.2 Problem Statement**

As the food industry was increasing in size, there were more and more products which inputted a lot of artificial ingredients into the food manufactured. Thus, the increased of artificial ingredient in food industry had led to the high percentage of obesity in Malaysia. Besides, according to Paulius (2013), Malaysia regularly experienced changes in lifestyle and resulting in increasingly sedentary lifestyle followed by high calories and low nutrient foods which were cheaper and more convenient choices for consumer. So, there was a large market to be penetrated in dietary supplement industry. As the market was rising, there must be a lot of points in which the consumer took as the main reason to consume dietary supplements. So, the awareness of student of FPTT might or might not aware of the situation above and the research was to find out their attitude towards dietary supplements. Due to this, the study was investigated on the criteria above and come out with the best answer for all.

## **1.3 Research Question**

The research questions that were asked in the study were:-

- i. What were the factors that affect the purchasing intention of UTeM's FPTT undergraduates upon dietary supplements?
- ii. What were the relationships of the factors with the purchasing intention of UTeM's FPTT undergraduates on dietary supplements?
- iii. How did the factors contributed to the purchasing intention of UTeM's FPTT undergraduates' purchasing intention on dietary supplements?

#### **1.4 Research Objective**

The objectives that were to be answered the research questions are as follow:-

- i. To determine the factors that affect the purchasing decision of UTeM's FPTT undergraduates upon dietary supplements.
- ii. To investigate the relationship between the factors and the purchasing intention of UTeM's FPTT undergraduates on dietary supplement.
- iii. To identify the contribution of the factors towards the result of UTeM's FPTT undergraduates' purchasing intention on dietary supplements.

#### **1.5 Scope And Limitation**

The research was held at UTeM City Campus in Melaka. The research was using questionnaire and data collection technique as the research model. Target respondents of the questionnaire was UTeM's FPTT undergraduates of UTeM City Campus in Melaka state as they were occupied with more knowledge in the matter as a business student and at the same time as a member of generation Y which consisted of majority market in dietary supplements industry. The data collection was from real time to support the research. The results of the research were used for further validation.

The limitations of the research were more on human factor. Due to the large scale of distribution of questionnaires, there was a lack of accuracy in answering the questionnaires as human error will appear. As the respondents were selected at random to perform the research, the honesty levels of respondents were different from each other. So, there was a limitation to the validity of the result got from the respondents. The awareness of unhealthy food intake in Malaysia among the respondents too was affected the validity of the research as not everyone was aware of the importance of the dietary supplement industry.

## **1.6 Importance Of The Study**

The importance of the study was to determine the factors and the importance of each factor to the purchasing intention of UTeM's FPTT undergraduates upon dietary supplements. By having to know about the factors and their each importance, a lot of founding and marketing plan could executed or modified for better marketing strategies. Indirectly, this research created awareness towards the increase in unhealthy food intake and high rate of obesity in Malaysia which was alerting to all. For the dietary industry, this research was a stepping stone to choose the best marketing strategy to be used in their products respectively as it save time and cost to the industry.

## **1.7 Summary**

This chapter was discussed about the introduction of the research which was to determine factors and their relationships towards the purchasing intention of UTeM's FPTT undergraduates upon dietary supplements due to the increased in unhealthy food intake and high rate of obesity in Malaysia which was very alerting. Then, the problem statements which were the source of the research were stated here with the objectives to support them. The scope and limitation of the research was in this chapter along with the importance of the study as these were important to support the outcome of the research.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter was discussing about the consumers' purchasing intention towards dietary supplements and definition of dietary supplements. Factors affecting the purchasing intention of consumers on dietary supplements were discussed in this chapter. Some of the factors were health awareness, attitude towards dietary supplements and advertisements. These factors were the factors which led to the purchasing intention of UTeM FPTT's undergraduates. The research was trying to establish relationships among all the determinants that affected consumers' purchase intention. Thus, theoretical framework and hypotheses were form in this chapter. In section 2.2, the theory of planned behaviour was described. In section 2.3, the term dietary supplement was briefed. The consumer behaviour which affects the purchasing behaviour was discussed in section 2.4. Then, follow by the discussion of theoretical framework of the study in section 2.5. Thus, hypotheses were generated for the literature review. Last but not least, the summary for the overall of chapter two was present in section 2.7. This chapter was concluded with a restatement of the problem and the rationale for the need this research project.

## 2.2 Theory of Planned Behaviour

The theory of planned behaviour (TPB) (Ajzen, 1991) had been used to model many types of behavioural decisions. The TPB (Ajzen, 1991) proposed that behaviour was predicted by intentions to perform the behaviour and also by perceived behavioural control when behaviour is not under complete volitional control (Conner et al., 2001). Intentions were plans to act in a particular way and represent the motivation toward the behaviour; they were influenced by attitudes towards outcomes of the behaviour, subjective norms, and perceived control over the behaviour (Ajzen, 1991; Conner et al., 2001). Attitudes were overall evaluations of the behaviour as favourable or unfavourable and subjective norms evaluate the perceived social pressures to perform or not perform a particular behaviour. Perceived behavioural control was the individual's perception of the extent to which performance of the behaviour was easy or difficult (Ajzen, 1991; Conner et al., 2001).

The TPB had been used to examine food-related behaviours such as reduction in fat intake (Paisley and Sparks, 1998), skimmed milk consumption (Raats et al., 1995), and organic vegetable consumption (Sparks and Shepherd, 1992). O'Connor and White (2010) used the TPB to investigate Australian consumers' willingness to try functional foods and dietary supplements. Their findings supported the influence of TPB constructs, such as attitudes, subjective norms, and behavioural control on behavioural intention. Conner et al. (2003) also employed the TPB as their conceptual framework to assess factors influencing older women's decisions to use dietary supplements. Their research found significant differences across TPB beliefs between users and nonusers of DS, supporting the use of TPB to explore differences in antecedents to consumer intentions to use DS products. Accordingly, the present study was employing TPB as a conceptual framework to examine key factors influencing UTeM FPTT undergraduates' buying intentions regarding dietary supplement products.