

An Exploration of the Factors Influencing the Intention of University Students towards the Consumption of Instant Noodles

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Abstract – Previous studies on instant noodles have been aimed mostly at secondary students, and have been concerned with the demographics, and the development of product attributes. Very few studies have examined the role of convenience (CO), product attributes (PA), advertising (AD) and subjective norms (SN) in predicting the intention of students towards the consumption of instant noodles. The present rising costs of living and education may affect the intention and behaviour of university students towards the consumption of affordable food. Therefore, the purpose of this paper was to explore the relationship between these variables and the variables of the Theory of Reasoned Action (TRA) in association with the intention of university students to consume instant noodles. A research model approach was used to reflect the effects of CO, PA, AD, and SN on the TRA constructs. In total, 390 cases were gathered from three universities. Structural equation modelling was employed to assess the proposed research model in terms of the path significance, the general requirements for a model fit, and the testing of the hypotheses. It was found that AD has a direct positive effect on the behavioural intention of university students towards the consumption of instant noodles. Nevertheless, CO, PA, and SN appear to exert no significant influence on the behavioural intention of university students. The limitation of the study was that the findings were obtained from a small dataset covering only three universities. Therefore, future researches should cover a broader range of research samples. This paper provides additional understanding for marketing managers and researchers into the effects of CO, PA, AD and SN on the intention of Malaysian university students towards the consumption of instant noodles, which can be used for formulating marketing strategies for instant noodles and for considering future research directions in other countries. Copyright © 2016 Penerbit Akademia Baru - All rights reserved.

Keywords: Consumer behaviour, consumption, instant noodles, Malaysia, university students

1.0 INTRODUCTION

Many Malaysian consumers are beginning to be concerned about the 6% Goods and Services Tax (GST), which was recently implemented in this country in 2015. On top of that, the price hikes that are being imposed on sugar, fuel, toll rates and electricity tariffs every month may become too burdensome for some families to bear. The rising costs of living and education are a challenge for most university students to make ends meet. This problem may affect their intention towards the consumption of food that is cheap and affordable. There is a variety of cheap and affordable instant foods available in the market to choose from and these have



become part of our diet. Instant food products, especially instant noodles, are food that students believe will help them to save in terms of money and time.

The Oxford Dictionary defines instant food products as prepared and packaged food products that usually need water for the final cooking. There are many varieties of instant noodles in the market, namely Chinese raw noodles, Maggie instant noodles, Japanese Udon noodles, Chinese wet noodles, Malaysian Hokkien noodles, Chuka-mien noodles, instant fried noodles, and Thailand Bamee noodles.

Instant noodles are quite similar to a rice diet; both are high in carbohydrates and proteins. Thus, it is not surprising that instant noodles, which provide the equivalent to a balanced diet, have become the most popular food among university students. However, the overall current demand and sale of instant noodles have been decreasing from 1,350 million in 2013 to 1,300 million in 2015 [1]. Furthermore, many companies have to encounter the strong international competition industries and also consumers' demand [2].

Noodles are one of the staple foods consumed in Asia. It has been estimated that at least twelve percent of the global wheat production is utilised for the processing of noodle products in Asia [3]. Previous studies have concentrated primarily on the packaging design, the sensory attraction, the shelf life, the nutritional value, the texture and quality of instant noodles, as well as the dietary patterns related to the intake of instant noodles for consumers and non-consumers [4-8]. However, far too little attention has been paid to examining instant noodles as a food for market research related to market segmentation trends. In addition, very few studies have used the Theory of Reasoned Action [9] to investigate the intention of university students to consume instant noodles. By investigating different segments, companies hope to discover one or more market segments that are worth entering into. Furthermore, many noodle companies hope to understand the particular buying decisions of consumers. They need results on what, where, when, why and how their consumers purchase.

As a result, the current research addressed these gaps and added in various factors from the literature review on the Theory of Reasoned Action (TRA) in order to examine the intention of university students to consume instant noodles. The findings may help marketing managers to improve their current sales of instant noodle products in the market.

The theoretical assumption of this study was built on the Theory of Reasoned Action formulated by Ajzen [9] to measure consumer intention. The theoretical research model consisted of four exogenous variables, namely convenience, product attributes, subjective norms, and advertisements, while the endogenous variable was the intention.

In terms of the demographics, almost half of the students in Thailand prefer to consume instant noodles [4]. Instant noodle consumption among females is reported to be higher than among males in Korea [6]. Another study by Daneshvary [10] discovered that demographic factors such as age, gender, education and profession are related to the intention to purchase.



2.0 LITERATURE REVIEW

2.1 Convenience

Lack of time, finances, skills, knowledge and ability to prepare home-cooked meals usually influence the intention of consumers to choose convenience food. The availability of instant food, such as instant noodles, saves consumers time and effort, and relieves them of the tedious task of collecting various ingredients, cleaning and sorting them, and preparing the food. A study by Shin [6] revealed that instant noodles are considered as a convenience food by most consumers. A few other similar studies by Atkins [11] and Wales (12) found that convenience has a great impact on the food choices of present day consumers, as they prefer food that can be prepared instantly and is ready to be consumed. Direct marketing conducted over the Internet has become popular and makes it easy for consumers to shop online using their mobile phones [13-14]. Other places where instant noodles can be sold are at hypermarkets, supermarkets, and grocery stores.

Although the convenience factor has been widely applied in other countries, the studies in this country are limited. Therefore, this study was formulated based on the following hypothesis.

Hypothesis 1. The convenience factor has a significant effect on the intention of university students to consume instant noodles.

2.2 Product attributes

Several researchers have studied the effects of product attributes, which can be translated as anything that consumers believe in relation to a product itself that causes them to make decisions regarding the buying of a certain product [15]. The buying of convenience food by a consumer is linked to the perception of the quality of the product, as well as the saving of time or money [16]. Kotler [17] and Keller [18] noticed that to obtain a competitive advantage, companies usually try to distinguish themselves from the competition by developing strong, high-end brand equity.

Studies have found that consumers prefer quality instant noodles in terms of the texture, including firmness, elasticity and smoothness [19]. The research finding by Fu [20] also pointed towards high quality noodles that should be bright in colour with very little discoloration, have an adequate shelf life without visible microbiological deterioration or oxidative rancidity, and have an appropriate flavour and textural characteristics.

Most importantly, the price is often considered as the characteristic that determines whether consumers will give up buying a product or service [21]. Usually the pricing strategy decisions of a noodle company are determined by both organizational factors and outside market environmental factors. For example, a noodle company may combine a few noodle products and sell them at a lower price.

Besides that, instant noodles can also be obtained in all kinds of flavours. In terms of flavour, the noodles in each country reflect the particular cultural preferences of their consumers. For instance, Korean instant noodles are very spicy. The Japanese prefer seafood and mild spicy flavours. The instant noodles in Indonesia and Malaysia come in many flavours, from chicken, beef and vegetables to the traditional hot and spicy hawker flavours.



The packaging of the product may also influence the choice of consumers. The development of product packaging such as instant noodles in plastic cups and bowls are highly in demand. Some of the products have the same quality and quantity, but their packaging designs distinguish them from their other competitors. As highlighted by Natawidjaja [22], traditional Japanese noodles packaged under the brand name Chikin Ramen are very expensive and are viewed as a product for the wealthy [23].

In the past, there was an increasing amount of literature on the development of instant noodle products. In product development in Japan, for instance, instant noodles are made with the addition of calcium and psyllium husks to increase the dietary fibre content in the noodles, as well as to serve as a natural stabilizer to improve the texture of the noodles [24].

In another study by Fu [20], it was discovered that alkaline noodles have a featured aroma and flavour, a clear, yellow colour, and a firm, elastic texture with a smooth surface. In a different study, Winichagoon [25] reported that instant noodles in developing countries have added nutrients, such as buckwheat flour in the noodles or spices in the seasoning powders that accompany the noodles. According to Sug [7], food attributes are one of the most crucial factors that affect the choice of consumers in their demand for food products.

Thus, product attributes such as taste, flavour, packaging and quality have been widely studied in the past with regard to the consumption of instant noodles. However, there is less understanding in relation to the attributes of instant noodle products in Malaysia. As a result, the following hypothesis is thereby proposed.

Hypothesis 2: The factor of product attributes has a significant effect on the intention of university students to consume instant noodles.

2.3 Advertising

Advertising is able to develop a long-term image and to activate fast sales for a product. Keller [18] explained that advertising is any paid form of non-individual presentation and promotion of ideas, products and services. Usually, companies depend on the radio, printed material, Internet and television advertising to attract consumers. Past research has examined advertising for calorie-dense, low-nutrient foods [26]. In another study by Adekoya [27], it was revealed that advertising is aimed at promoting repeated purchases of the product to the customer, so that the competition will not have an advantage over them.

However, to the best knowledge of the authors, no report has been found so far in relation to the influence of the advertising factor on the intention of university students towards the consumption of instant noodles after the implementation of the GST in this country. Therefore, this study developed the following hypothesis.

Hypothesis 3: The advertising factor has a significant effect on the intention of university students to consume instant noodles.

2.4 Subjective norms



Several previous studies in the literature have reported on subjective norms. A subjective norm explains whether a person feels that his or her friends support or do not support a behaviour [8].

Haley [28] and Yun [29], when investigating health-related behaviour among college students, found that close friends are an influential referent group. In another study, Scaglioni [30] discovered that parents at home may influence or affect their children's behaviour directly or indirectly. Similarly, Savage [31] found that the food choices and dietary patterns of adolescents are ultimately shaped by the food that is available to them at home.

Although there have been several researches about subjective norms in relation to college students, adolescents and children, however, very few of those researches focused on university students. Thus, this study developed the following hypothesis.

Hypothesis 4: The subjective norms factor has a significant effect on the intention of university students to consume instant noodles.

2.5 Consumer's intention

The Theory of Reasoned Action (TRA) was developed by Ajzen [9] to understand, explain, predict and influence human behaviour. Numerous studies have attempted to explain the theory. For example, Miller [32] reported that the consumer's intention is a function of two basic elements, i.e. attitudes and subjective norms, which have been found to predict actual behaviour. Other studies by Wang [33] showed that the buying intention of consumers is a physiological action, whereby a person's behaviour is directed by the product. More recently, studies have confirmed that the buying intention is received from a process of learning and thinking from the consumers' perception [34]. Lately, Azami, Unku Ahmad, and Choi [35] study on the company workers' relationship between organizational justice and turnover intention behaviour. More recently, Muhammad and Jaffri Saad [36] studied on how people intend to pay their Zakat.

Ajzen [9] recommended other variables that could contribute to the TRA model, and which could only affect intention and behaviour. Several past studies have claimed that particular features of the product attributes, convenience, advertising and subjective norms, all play a part in influencing the buying intention behaviour of consumers [6-18]. However, these types of factors have not been studied widely among university students in Malaysia.

Therefore, the current study involved an investigation into the various factors that affect the intention of university students towards the consumption of instant noodles. The various factors, namely convenience, product attributes, advertising and subjective norms were added to the TRA model.

3.0 METHODOLOGY

Structural equation modelling was applied in this study. It is a methodology for representing, estimating, and testing a theoretical model of usually linear relations between variables [37]. The study was conducted by employing quantitative techniques. The current research was carried out using the survey method of population and sampling. Questionnaires were distributed to three universities in one of the states in Malaysia. The 450 samples were selected



using the simple random sampling method. The questionnaire was divided into six sections, namely questions about the demographics of the respondents, convenience, product attributes, advertising, subjective norms and intention, as indicated in Table 1. The data were collected based on an adopted and adapted questionnaire that was explained in the literature review, as presented in Table 2. A pilot test was carried out with the convenience sampling from one of the university's population to evaluate the understanding of the respondents with regard to the adopted and adapted questionnaires. The results from the pilot test indicated that the respondents understood the survey tool.

Table 1: Questionnaire instrument

Section	Item No.	No. of Items		
1	Demographic	6		
2	Convenience	5		
3	Product Attributes	5		
4	Advertising	5		
5	Subjective norms	5		
6	Intention	5		
	Total Items	31		

Table 2: Questionnaire constructs

Measurement of Constructs	Studies adopted and adapted from
Intention (Endogenous variable)	Ajzen & Fishbein [9], Miller [32], Wang & Yang
I intend to eat instant noodle because it tastes good.	[33], Gretna & Richard [34], Shin et al., [6], Tjiptono
I intend to eat instant noodle because it affordable.	[15], Keller [18]
I intend to eat instant noodle because it is easy to	
cook.	
I intend to eat instant noodles because of	
convenience.	
I intend to eat instant noodle because I don't know	
how to cook.	
Convenience (Exogenous variable)	Shin et al., [6], Atkins & Bowler [11], Wales [12]
I like to eat instant noodles because I lack of time to	
cook.	
I like to eat instant noodle because I lack of cooking	
skills to cook my own meal.	
I like to eat instant noodle because it can save my	
time.	
I like to eat instant noodle because it is my quick	
meal solution when I am hungry at home.	
I like to eat instant noodle because I no need to	
collect various ingredients and cleaning before and	
after the meal.	
Product attributes	De Boer et al., [16], Tjiptono [15], Noda et al., [19],
I like the taste of instant noodle.	Fu [20], Lam et al., [21], Natadjaja [4], Hou [24], Sug
I like to eat instant noodle because the price is	et al. [7], Winichagoon et al [25]
affordable.	
I like the instant noodle favour.	
I like to eat instant noodle because I can save some	
money.	



T111 1	
I like the texture of the instant noodle for any of my	
brand.	
Advertising	Adekoya [27], Halford et al [26]
Television advertisement influences me to eat	
instant noodle.	
Instant noodle advertises in newspaper influence me	
to eat instant noodle.	
Instant noodle advertises in internet influence me to	
eat instant noodle.	
Instant noodle advertises in magazines influence me	
to eat instant noodle.	
Instant noodle advertises in radio influence me to	
eat instant noodle.	
Subjective Norms	Ajzen & Fishbein [9], Haley & Jahns [28], Yun &
My mother use to cook instant noodle for me to eat.	Silk [29], Scaglioni et al [30], Savage et al [31]
My father influences me to eat instant noodle.	
My sister influences me to eat instant noodle.	
My brother influences me to eat instant noodle.	
My close friend influences me to eat instant	
noodles.	

3.1 Theoretical Framework

The research model for this study is presented in Figure 1.

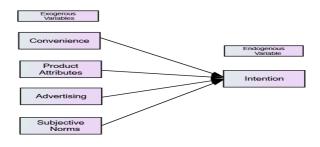


Figure 1: Theory reason action measurement model [9].

3.2 Research result

3.2.1 Respondents' profiles

In total, 450 questionnaires were distributed to the respondents, and 390 (86.6%) forms were completed and analysed. A statistical analysis gave the frequency and percentage that could be used to represent the profiles of the respondents. The results are shown in Table 3.

Gender	Frequency	Percentage (%)
Male	115	29.6
Female	273	70.4
Age		
19	49	12.1
20	139	35.1
21	119	30.7
22	75	19.3
23	11	2.8
Program of Study		
Business Administration	105	27.1
Social Science and Humanities	210	54.1
Information System	73	18.8

Table 3: Respondents demographic profiles (N-390)

3.2.2 Data analysis

The data were analysed using the Statistical Package for Social Sciences (SPSS) version 20 and AMOS version 20. Hair et al., [38] proposed two methods for analysing data using statistical analysis and SEM (Structural Equation Modelling) to test the measurement model and structural model. Furthermore, three valid criteria had to be met to analyse the SEM path structure, namely unidimensionality, validity, and reliability. The criteria are listed in Table 4.

Table 4: Criteria

Standard Measures	Characteristics		
Unidimensionality	When factor loadings is more than 0.5		
Reliability	Internal reliability should achieve Cronbach's alpha > 0.7 Construct Reliability should achieve (CR) value > 0.6		
Validity	Convergent validity:		
	 AVE value is more than 0.4 		
	Construct validity		
	• Fitness index		
	Chisq p > 0.05		
	RMSEA < 0.80		
	GFI > 0.90		
	AGFI > 0.90		
	CFI > 0.90		
	TLI < 0.90		
	Chisq/df < 5.0		
	Discriminant validity		
	 Correlation between variables 		

Source: Zainudin Awang, 2012. *A Handbook on SEM (Structural Equation Modelling), Using AMOS Graphic.* Kota Baharu: Universiti Teknologi Mara Kelantan

3.2.3 Measurement model

SEM was employed to evaluate the proposed theoretical research model and the hypotheses concerning the relations among the observed and latent variables [39]. The benefit of the SEM is the adequacy of its estimated coefficients for the hypothesized relationships in the research



model, which suggests two alternatives between the constructs that appear to agree with the goodness of fit [40].

The data collected supplied a good fit to the theoretical research model. The ratio of x^2 /df was 3.352, which was lower than the value of 5.0 recommended by Byrne [40]. The incremental fit indexes were higher than 0.90, where the CFI was 0.91, GFI was 0.90 and AGFI was 0.90. The absolute fit indexes were close to the 0.08 guideline. The absolute fit indexes shown in the research model also indicated a reasonable fit to the model, as the RMSEA was 0.078, and the RMR was 0.046. These fit indexes indicated that the theoretical research model was in good order. Subsequently, based on the fit of the theoretical research model, the estimated path coefficients could be used to analyse the hypothetical relationships and to write up the discussion as well.

Before testing the final hypotheses, some valid criteria had to be considered to evaluate the theoretical SEM path structure of the model, namely, unidimensionality, validity and reliability. Table 5 shows the results of the reliability and the factor loading. Several of the items in each of the constructs were erased as improper planning was detected. The results of the factor loading for each item in the five constructs were all higher than 0.50.

Table 5: Reliability and factor loadings

Constructs	Items	Factor	KMO	C.R	AVE	C. Alpha
		Loading				•
Convenient	B1	.66	KMO: 0.761	0.78	0.50	0.74
	B2	.76	X ² : 506.120			
	В3	.62	Sig: 0.000			
	B4	.69				
Product						
Attributes	C 1	.58	KMO: 0.855	0.76	0.40	0.87
	C2	.63	X ² : 901.944			
	C3	.62	Sig: 0.000			
	C4	.62				
	C5	.67				
Advertising	D1	.78	KMO: 0.845	0.90	0.64	0.90
	D2	.71	X ² :			
	D3	.90	1249.680			
	D4	.82	Sig: 0.000			
	D5	.77				
	EI1	.93	KMO: 0.846	0.91	0.67	0.91
Subjective	EI2	.84	X ² :			
norms	EI3	.85	1373.973			
	EI4	.72	Sig: 0.000			
	EI5	.74				
Intention	FI2	.83	KMO: 0.832	0.94	0.78	0.90
	FI3	.91	X ² :			
	FI4	.91	1502.588			
	FI5	.89	Sig: 0.000			
	F15	.89	Sig: 0.000			



The discriminant validity correlation between the variables is presented in Table 6. Figure 2 presents the final theoretical structural model.

			Product		Subject	
		Convenient	Attributes	advertising	Norms	Intention
Convenient	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	388				
Product attributes	Pearson Correlation	.130(*)				
	Sig. (2-tailed)	.010				
	N	388	1			
Advertising	Pearson Correlation	068	.236(**)			
	Sig. (2-tailed)	.183	.000			
	N	388	388	1		
Subject norm	Pearson Correlation	064	.052	.428(**)		
	Sig. (2-tailed)	.210	.308	.000		
	N	388	388	388	1	
Intention	Pearson Correlation	.030	.135(**)	.627(**)	.307(**)	1
	Sig. (2-tailed)	.558	.008	.000	.000	
	N	388	388	388	388	388

^{*} Correlation is significant at the 0.05 level (2-tailed).

^{**} Correlation is significant at the 0.01 level (2-tailed).

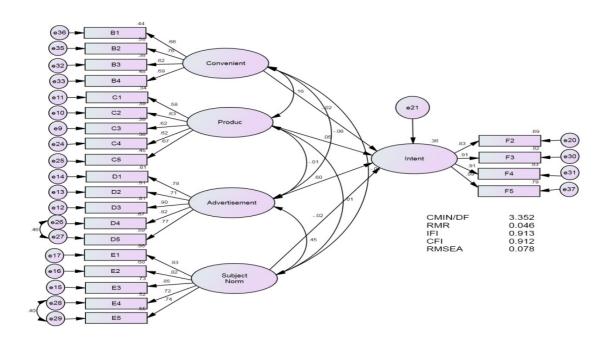


Figure 2: Structural theoretical research model



Table 7 shows the proven fitness index measurements and the results of the relationship between the exogenous variables (convenience, product attributes, advertising and subjective norms) and the endogenous variable (intention).

The theoretical structural model was estimated using the maximum likelihood estimation (MLE) technique. The following figures indicate the results of the fitness index that was produced. It was found that all the fitness indexes measured in this research achieved the suggested values for the model to be a good one. Overall, the SEM analysis was based on the model as explained below:

Benchmark Value Goodness of Fit Results Chisq/df < 5.0 3.352 Achieved **RMSEA** < 0.80 0.078 Achieved **GFI** >0.90 0.90 Achieved **AGFI** >0.90 0.90 Achieved **CFI** >0.90 0.91 Achieved TLI >0.90 0.92 Achieved

Table 7: Goodness of fitness index measurement

Table 8: Parameter estimate (Regression Weight) for modified model

Hypothesis	Path		Constructs	Estimate	S.E	C.R	P Value	Result
H1	Intention		Convenience	-0.028	0.082	-0.348	0.728	Not
				0.020	0.002	0.5 10	0.720	Supported
Н2	Intention	←	Product attributes	0.054	0.054	1.007	0.314	Not Supported
Н3	Intention	←	Advertising	0.620	0.064	9.638	***	Supported
H4	Intention	←	Subjective Norms	-0.220	0.054	-0.415	0.678	Not Supported

Note: C.R=Critical Ratio.

S.E =Standard Error

*Significant at 0.05

4.0 RESULT, DISCUSSION AND IMPLICATION

Based on the measurement model and the fitness index measurement, Table 8 presents the estimated research hypotheses and the results of the significant relationship levels. For Hypothesis 1, it was interpreted that the convenience factor had no significant influence on the intention of university students to consume instant noodles (Convenient: β =-0.028, C.R. = -0.348, p = 0.728 > 0.05); therefore, the hypothesis was not supported.

From the literature review, consumers consume instant noodles just because of the convenience [11], [6], and [12]. Lack of time, skills and finances affect a person's intention to choose convenience foods such as instant noodles. However, the finding of this study was not supported by the previous findings.

In order to improve the situation, it was suggested that perhaps instant noodle companies could create online selling over the Internet. This may make it convenient for university students to



order online from home [13], and [14]. Although the supermarket is a common place to buy instant foods, in fact, it is not considered as a very convenient place to purchase a small packet of instant noodles. On the contrary, mini markets, such as 7-Eleven and grocery stores, which are close to universities, colleges and schools, and canteens are sometimes more expedient than supermarkets. In fact, there is a possible potential market in mini markets and college canteens. Perhaps university students may prefer to purchase their daily needs in those mini markets and grocery stores. This will make the products available where and when they are needed by the consumer. Another explanation is that there are still many foods that can be substitutes for instant noodles, for instance, bread and rice.

Similarly, the Hypothesis 2 explains that product attributes is an exogenous variable (Product attributes: $\beta = 0.054$, C.R. = 1.007, p = 0.314 > 0.05), and it was proven to have no significant influence on the intention variable in this study. As a result, the hypothesis was not supported.

Indeed, consumers usually like to consider product attributes such as taste, flavour, packaging and quality [4], [7], [13], and [19], but surprisingly, the present finding does not support the previous discovery.

According to Lam [21], price is usually a concern of consumers as to whether to consume or not to consume a product. This can perhaps explain why some consumers consider the current price of instant noodles in supermarkets to be high. Previously, instant noodle companies aimed to attract those consumers who are not affected by financial living standards. In order to solve this problem, it is recommended that instant noodle companies discuss offering lower prices for those products as a promotion strategy to target needy university students at present. It is a satisfactory method to convince the consumers psychologically that they are actually consuming high-end quality products at a reasonable price. The suggestion of a new selling price and place strategy will be a potential instrument to speed up the sale of instant noodles. It is recommended that instant noodle companies carry out more research to estimate their current demand in order to develop suitable prices for their products.

Furthermore, the issue of consumers' perception that instant noodles are unhealthy may affect the consumption of this product by consumers. As instant noodles presently have added nutrients, this may help in the marketing of instant noodles to more health conscious consumers. However, to increase the sales of instant noodles, companies may need to educate consumers through advertising and various methods of promotion.

In terms of Hypothesis 3, the advertising construct was revealed to have a significant influence on the intention to consume instant noodles (Advertising: $\beta = 0.620$, C.R. = 9.638, p = 0.000 p < .05). Therefore, the hypothesis was supported.

The present finding confirmed that advertising has a potential significant and positive relationship with intention. The findings of this study were consistent with the results of Adekoya [27] and [18] where it was concluded that advertising promotes repeated purchase of a product. This may help the growth of the instant noodles market in this country. Advertising is crucial, and this is further supported by the notion by Halford [26] that food companies can effectively apply advertising to disseminate information about the benefits of their food products. Therefore, in order to increase the intention of university students to consume instant noodles, the advertising of these products should be included in television advertising, personal sales to universities, and direct online sales and promotions. To the best of knowledge of the



author, personal sales are an excellent way to improve preferences, strong beliefs and activities. Promotions, other than personal sales, may provide some discounts for purchases by way of offering one free packet for the instant purchase of three packets. Moreover, purchases of instant noodles may come with a limited edition pen from the instant noodle company.

Furthermore, Hypothesis 4 provides that the subjective norms construct has been indicated as an insignificant influence on the intention to consume instant noodles (Subjective norm: β = -0.220, C.R. = -0.415, p = 0.678 p > .05). Therefore, the hypothesis was not supported.

Past studies have reported that people feel that their closest friends are an influential referent group [28-31]. Surprisingly, past studies did not support the current subjective norms. The subjective norms in this study have proven to be insignificant with regard to the intention to consume instant noodles. This proves that the subjective norms factor is not an important factor influencing the intention of university students to consume instant noodles.

Other potential thoughts on the insignificance of the subjective norms are that university students may have other alternatives for cheap and affordable foods, where their campus surroundings offer other foods for consumption such as hawker food, restaurant food and economy meals from the canteen instead of instant noodles.

5.0 CONCLUSION

The rising costs of living and education fees pose challenges for all university students. Students may end up with just enough money to spend due to such a situation. Furthermore, university students have busy schedules, where they spend more time on their assignments. On top of that, their extra-curricular activities leave them with little time for cooking. In addition, the finance constraint has also changed the behaviour of university students, where they demand for food that is convenient and relatively low in price. Hence, the consumption of instant noodles has become a possibility.

The findings of this study will be used as a proposal for instant noodle marketers to solve the various factors that influence the intention of university students to consume instant noodles. This study can contribute to the formulation of a theoretical framework covering various factors (e.g. convenience, product attributes, advertising and subjective norms) and the intention in the TRA model. Advertising has been added to the theoretical research model, thus distinguishing it from previous studies. Consequently, it has contributed a new finding to the literature.

The finding of this study indicated a positive significant relationship between advertising and intention. The result should be very effective for instant noodle marketing managers and the government. If possible, marketing managers can employ this discovery by having instant noodles advertisements on television, suitable Internet sites for online shopping, and in magazines. This will definitely contribute to an increase in the demand for instant noodles.

Another potential method for disseminating instant noodles is for the marketing managers of instant noodle companies to sponsor university canteens. This kind of approach may help to increase the current demand for instant noodles. Nevertheless, it was found that convenience, product attributes, and subjective norms are not predictors of intention.

6.0 LIMITATION AND FUTURE RESEARCH



The results of the study provide valuable inputs to producers or marketers to improve their marketing efforts as well as for market positioning, in line with the declining demand for instant noodles. There are a few limitations to this study. First, the best method for the application of the research would be to involve all consumers in further studies. Second, a qualitative method is needed for future studies to have a more in-depth exploration of the perceptions of consumers to the product attributes of different kinds of instant noodles. Besides, the factors influencing the intention of university students towards the frequent consumption of instant noodles in the canteen have not been investigated. The present study was also limited by the fact that the analysis was conducted with data collected from the students of only three universities, and not all the universities in Malaysia. Despite using the students from only three universities, this study provides a strong foundation for further consideration.

REFERENCES

- [1] World Instant Noodles Association. "Global demand for instant noodles." (2015).
- [2] A.K.A, Zakwan, and Zuhra. "Simulation of scheduling technique in a food processing industry." Journal of Advanced Research Design 19, no.1 (2016): 14-18
- [3] FAO. FAO Production Statistics. Available at: https://faostat.fao.org/site/567/DesktopDefault.aspx?PageID=567/2007, accessed on 30th August 2015
- [4] Natadjaja, Listia. "COMPARATION STUDY OF INSTANT NOODLE NONG SHIM KOREA AND INDOMIE INDONESIA AS THE FEFFECT OF PACKAGING DESIGN POINT OF INTEREST TO THE CONSUMER BRAND PREFERENCE." Nirmana 5, no. 2 (2004).
- [5] Kongkachuichai, Ratchanee, Arunwadee Kounhawej, Visith Chavasit, and Rin Charoensiri. "Effects of various iron fortificants on sensory acceptability and shelf-life stability of instant noodles." Food and nutrition bulletin 28, no. 2 (2007): 165-172.
- [6] Shin, Hyun Joon, Eunyoung Cho, Hae-Jeung Lee, Teresa T. Fung, Eric Rimm, Bernard Rosner, JoAnn E. Manson, Kevin Wheelan, and Frank B. Hu. "Instant noodle intake and dietary patterns are associated with distinct cardiometabolic risk factors in Korea." The Journal of nutrition (2014): jn-113.
- [7] Sug, JL, Jeongseon, K, H.K. Hee, Ai Jang, Y, Hyun Park, Ae, and H.C. Rang. "A comparison of food and nutrition intakes between instant noodle consumers and non-consumers among Korea children and adolescents". Korea Journal Nutrition and Health, 42 no. 8 (2009): 723-731
- [8] L.J. Yu, L, and M.O. Ngadi. "Textual and other quality properties of instant fried noodles as affected by some ingredients." Cereal Chemistry, 81 no. 6 (2006): 772-776
- [9] Icek Ajzen, and M. Fishbein, Martin. Attitudes, Personality and Behaviour, (2nd ed). England: (Open University Press, McGraw-Hill. 2005)
- [10] Daneshvary, and Schwer, K.R. "The association endorsement and consumers' intention to purchase. Journal of consumer marketing," 17 no. 3



(2000): 203-213.

- [11] Atkins, P. and Bowler, I. Food in Society: Economy, Culture and Geography, Arnold, London. In Farzana, Q.H., Rozhan, AD. and Sabarudin, Z. (2011). "Consumers' preference and consumption towards fast food: Evidences from Malaysia". Business Management Quarterly Review 2, no. 1 (2001): 14-27
- [12] Wales, M.E. "Understanding the role of convenience in consumer food choices: a review article." Studies by Undergraduate Researchers at Guelph 2, no. 2 (2009): 40-48
- [13] Lisa, Y, C. "The quality of mobile shopping system and its impact on purchase intention and performance." International Journal of Managing Information Technology 5, no. 2 (2013): 23=32
- [14] Rose, Susan, Neil, M, and Moira, C. "Online customer experience: A review of the business-to-consumer online purchase context". International Journal of Management Reviews, 13 no. 1 (2011): 24-39.
- [15] Tjiptono, F. Strategy of Business marketing, Yogyakarta. (2007)
- [16] De Boer, M., McCarthey, M., Cowan, C, and Ryan, I. "The influence of lifestyle characteristics and beliefs about convenience food on the demand for convenience foods in the Irish market." Food Quality and Preference, 15, (2004):155-165.
- [17] Kotler, P. Marketing management (14th ed). (Pearson, 2011)
- [18] Keller, K. L. Strategy Brand Management: Building, Measuring and Managing Brand Equity. (Upper Saddle River, NJ: Prentice Hall, 2012)
- [19] Noda, T., Tsuda, S., Motoyuki, M., Takigawa, S., Endo, C. M, and Kim, S.-J. "Effect of potato starch properties on instant noodle quality in wheat flour and potato starch blends." Starch 58, (2006): 18-24.
- [20] Fu, B.X. "Asian noodles: History, classification, raw materials, and processing." Food Research International 41, no. 9 (2008): 888-902
- [21] Lam, S. Y., Shankar, V., Erramilli, M. K, and Murthy, B. "Customer value, satisfaction, loyalty, and switching costs: An illustration from a business-to-business service context." Journal of the Academy of Marketing Science, 32, (2004): 293–311.
- [22] Natawidjaja, R S, Deliana T, Rusastra W, Perdana T, Napitupulu T A, Sulistyoningrum H, and Rahayu Y M. "The transparent margin partnership model: Linking mango farmers to dynamic markets, Final report of case study component 2", submitted to the Regoverning Market programme, Bandung, June 30 2007, Sustainable Markets Group, London. [online] Available at: www.regoverningmarkets.org/en/global/innovative_practice.html [accessed on17 February, 2015]



- [23] The Economic Times Bureau. "Instant Noodles market set for meteoric growth". The Economic Times, March 16, 2011.
- [24] Hou, C. T. "Industrial uses of lipase". In Kuo, T.M, and Gardner, H.W (Eds.), Lipid biotechnology. New York: Marcel Dekker, Inc. (2002)
- [25] Winichagoon P, McKenzie JE, Chavasit V, Pongcharoen T, Gowachirapant S, Boonpraderm A, Manger MS, Bailey KB, Wasantwisut E, and Gibson RS. "A multi micronutrient-fortified seasoning powder enhances the haemoglobin, zinc, and iodine status of primary school children in North East Thailand: a randomized controlled trial of efficacy." Journal of Nutrition136, (2006): 1617–1623.
- [26] Halford, J. C, Boyland, E. J, Hughes, G, Oliveira, L. P, and Dovey, T.M. "Beyond-brand effect of television (TV) food advertisements/commercials on caloric intake and food choice of 5-7-year-old children." Appetite 49, no. 1 (2007): 263-7.
- [27] Adekoya, O.A. "The impact of advertising on sales volume of a product." Bachelor's thesis, Hamk University of Applied Science. (2011)
- [28] Haley, E, and Jahns, L. "Insights into university freshman weight issues and how they make decision about eating." The Journal of Consumer Affairs. (2011): 306-328
- [29] Yun, and Silk. "Social norms, self-identity, and attention to social comparison information in the context of exercise and healthy diet behaviour." Health Communication, 26 (2011): 275-285
- [30] Scaglioni, S., Salvioni, M, and Galimberti, C. "Influence of parental attitudes in the development of children eating behaviour." British Journal of Nutrition 99, no. 1, (2008): S22–S25.
- [31] Savage, J., Fisher, J.O, and Birch, L. "Parental Influence on Eating Behaviour: Conception to Adolescence." Journal of Law, Medicine & Ethics 35, no. 1 (2007): 22—34
- [32] Miller, K. Communications Theories: Perspectives, Processes, and Contexts. New York: (McGraw-Hill, 2005)
- [33] Wang, X, and Yang, Z. "Does country-of-origin matter in the relationship between brand personality and purchase intention in emerging economies? Evidence from China's auto industry." International Marketing Review 25, no. 4 (2008): 458-474. doi.org/10.1108/02651330810887495
- [34] Gretna, T. K. P, and Richard, H. "The impact of customer value proposition towards purchase intention of Chesa cup." iBuss Management 3, no. 2 (2015): 241-251
- [35] Azami, N.A, Unku Ahmad, U.N, and Choi, S. L. "A study on relationship between



- organizational justice and turnover intentions in Malaysian." Journal of Advanced Research in Business and Management studies 2, no. 1 (2016): 31-38
- [36] Muhammad, S. A. and Jaffri Saad. "Determines of trust on Zakat institutions and its dimensions on intention to pay Zakat: A pilot study." Journal of Advanced Research in Business and Management Studies 3, no. 1 (2016): 40-46
- [37] Rigdon, E. E. Structural equation modelling. In Modern methods for business research, G. A. Marcoulides (editor). Mahwah, NJ: (Lawrence Erlbaum Associates, Publishers, (1998): 251-294.
- [38] Hair, J.F., Black, W.C., Babin, B.J, and Anderson, R.E. Multivariate Data Analysis (7th ed). Prentice Hall, (Upper Saddle River, New Jersey, 2010)
- [39] Hoyle, R. H. "The structural equation modelling approach: Basic concepts and fundamental issues. In Structural equation modelling: Concepts, issues, and applications", R. H. Hoyle (editor). Thousand Oaks, CA: (Sage Publications, Inc., 1-15. (1995)
- [40] Byrne, B. M. Structural equation modelling with AMOS: Basic concept applications, and programming. Mahwah, NJ: (Lawrence Erlbaum Associates, 2001)