Investigating the Purchase Intention of Thai Consumers toward Garlic-Based Supplements with a Higher Allicin Content

Petch Nakasiri
Technopreneurship and Innovation Management Program, Chulalongkorn University, Thailand
E-Mail: p.nakasiri@gmail.com

Apinan Soottitantawat
Faculty of Engineering, Chulalongkorn University, Thailand
E-mail: apinan.s@chula.ac.th

Thanawan Sangsuwan
Faculty of Commerce and Accountancy, Chulalongkorn University, Thailand
E-mail: thanawan@cbs.chula.ac.th

Article History
Received: 4 April 2019 **Revised:** 28 May 2019 **Published:** 30 September 2019

Abstract
Supplements have been growing in popularity among urban consumers due to a perceived lack of sufficient nutrition for good health, with little or no fresh fruits and vegetables now being consumed compared to in the past. In addition, supplements offer consumers the added convenience of obtaining a sufficient amount of nutrition without changing their eating habits. In today's marketplace, there are many kinds of supplements, such as vitamins, minerals, amino acids, fatty acids, herbs and herbal extracts, and animal extracts. Garlic is a herb grown around the world and one of the most popular due to its numerous benefits. The major aim of this study is to investigate the factors affecting the purchase intention of garlic-based supplements with a higher Allicin content among Thai consumers. In this study, quantitative research was carried out through an online questionnaire survey involving 400 Thai consumer respondents. The results suggest that product knowledge significantly influences the attitude of respondents toward Allicin supplements, while health consciousness had no significant influence. Furthermore, the results suggest subjective norms and perceived behavioral control positively influence the attitude of respondents toward their intention to purchase garlic-based supplements with a higher level of Allicin.
Keywords: Garlic-Based Supplement, Allicin, Purchase Intention, Planned Behavior

Introduction

At present, the growth in the supplements market has been driven by the increasing interest of consumers toward good health and well-being, particularly in urban areas and major cities across the globe. Consequently, the combined value of supplement markets in developed economies such as the US, EU, and Japan accounted for 70% of global supplement sales (Nutrition Business Journal, 2017). However, the supplement markets in these countries appear to have reached saturation, forcing the existing players to further expand into new markets, particularly those in emerging economies (Nutrition Business Journal, 2017). To enjoy good health, people need to eat foods with enough nutrition at every meal and the growing popularity of supplements among urban consumers is because they seem to have

insufficient nutrition for good health, with little or no consumption of fresh fruits and vegetables compared to in the past (Marles, 2017). Furthermore, environmental pollution and harmful lifestyles such as alcohol consumption, smoking, lack of sufficient sleep, sun bathing, and stress can damage a person's health and cause disease. Supplements offer consumers the convenience of obtaining a sufficient amount of nutrition without changing their eating habits (Newson et al, 2014).

In today's marketplace, there are many kinds of supplements, including vitamins, minerals, amino acids, fatty acids, herbs and herbal extracts, and animal extracts. Thailand represents a relatively large market in South East Asia with high growth potential for supplements and where the market value for health and beauty supplements is about 3,000 million baht per year, with an annual growth rate of 10%. Thai consumers tend to place greater emphasis on their health and well-being in response to growing health-conscious lifestyles, higher incomes, and worsening health conditions due to more stress and urbanized lifestyles (Alwan & MacLean, 2009). This trend has driven the demand for healthy products and services (Nutrition Business Journal, 2017). According to Chuang et al (2010), the relatively large number of supplements and a reduction in prices has led to a change in the consumer's perception toward supplements, transforming them from a luxury product into a conveniently available commodity. Garlic is one of the most popular herbs and herbal extracts in the world due to its numerous. Allicin gives garlic its strong aroma, keeping pests away, and has antibacterial and antifungal properties to protect the plant from infection. However, Allicin is not actually present in garlic, it is created instantly when the garlic enzyme alliinase interacts with alliin. Allicin powder extract is the only way to get a stable and standardized amount of Allicin from a garlic-based supplement that is ready to be used by the body directly benefits (Lawson & Hunsaker, 2018). For humans, Allicin is widely taken for many conditions relating to the blood and heart such as low blood pressure, high blood pressure, inherited high cholesterol, coronary heart disease, blood flow due to narrowed arteries, as well as hardening of the arteries (atherosclerosis), and also helps to prevent cancer.

Chuang et al. (2010) observed that potential supplement consumers are concerned about the benefit and authenticity of products in the supply chain as well as the accuracy of product labels and advertising information. This study, therefore, provides essential information for marketers and producers of supplements on the factors affecting the consumer's purchase intention, since it contains useful and up-to-date insight to assist in the effective strategy development and implementation. The major aim of this study is to investigate the factors affecting the purchase intention toward garlic-based supplements with a higher Allicin content among Thai consumers. The four specific objectives for meeting the aim of this research are as to investigate the influence of health consciousness and product knowledge on consumers' attitudes toward Allicin supplements, to investigate the influence of consumers' attitude toward Allicin supplements, subjective norms, and perceived behavioral control on the purchase intention of garlic-based supplements with a higher amount of Allicin.

Theory of Planned Behavior

Purchasing intention is a prediction of a consumer's decision to buy a particular product or service in the future. Thus, the research on purchase intention can help producers, retailers, and marketers to predict the buying behavior of consumers and understand the market, as suggested by Magistris and Gracia (2008). In addition, purchase intention is considered an effective tool in marketing research for forecasting demand. According to Magistris and Gracia (2008), purchase intention is something that food producers and retailers need to focus on because it allows them to better determine consumer behaviors and perceptions toward the product. Once they have a clear understanding of their customers, they can offer the appropriate products and enhance customer satisfaction, leading to the achievement of two

major goals: profits and customer loyalty (Magistris & Gracia, 2008). The study of Karnreungsiri and Praditsuwan (2017) investigated the association between the factors influencing the purchase behavior and purchase decision process of Thai consumers. The results suggested that the purchase behavior of Thai consumer in selecting and buying the herbal shampoo was significantly influenced by social and situational factors. Son and Kijboonchoo (2016) examined factors affecting the purchase intention of Korean cosmetics, which they found that Korean wave has a positive effect on the product information of Korean cosmetics. They suggested the significant relationship between country image and product image. According to the study of Jiang et al (2018), Thai movies and dramas were able to follow Korean wave. They found that there was a significant relationship between Chinese viewers' involvement and satisfaction toward Thai movies and dramas with relatively high intention to buy Thai products and to visit Thailand.

The theory of planned behavior (TPB) has been widely used to explain or even predict behavioral intentions, including that of entrepreneurship. According to the study by Erikson (2001), TPB is an effective model for explaining the entrepreneurship intention. Under TPB, Ajzen (1991) stated that intention is an immediate antecedent of behavior, based on three elements, namely attitudes toward behavior, subjective norms, and perceived behavioral control. These three elements together with behavioral intention can be used to explain or predict individual behavioral performance. In detail, the attitude toward behavior is described as the extent to which a person perceives the benefits and/or risks about specific behavior (Ajzen, 1991). People will intend to develop positive attitudes toward certain behavior when they perceive beneficial outcomes from it. On the other hand, they will have unfavorable attitudes when perceiving a negative impact from it. Subjective norms refer to an individual's perception of social influence in developing specific behavior in terms of social support from persons they regard as important, such as friends, family, and others. Furthermore, Ajzen (1991) explained perceived behavioral control as being a reflection of individually owned competence regarding specific behavior, measured though perceived feasibility or self-efficacy constructs as well as the direct impacts on behavioral performance.

Following the suggestion by Ajzen (1991), attitudes under the TPB model are defined as "enduring systems of positive or negative evaluations, emotional feelings, and pro or con action tendencies with respect to social objects." Ajzen and Fishbein (1980) stated that the attitude of an individual toward any object is more likely to involve the overall pattern of his or her response to such object. Furthermore, Fishbein et. al. (1974) suggests that attitude and behavior are associated when the observed behavior is considered relevant to the attitudes; when attitude and behavior are observed at comparable levels of specificity; and where mediation of the attitude-behavior relationship by behavioral intention is concerned. Following the study by Magistris and Gracia (2008), the health concerns of consumers is defined as the extent to which consumers are concerned about their well-being and health, and the effect it has on their daily lives. They mentioned that consumers are more likely to be concerned about food selection, consumption, as well as eating habits. Djekic et al. (2013) observed that consumers today prefer to select and buy food products by focusing on their quality so as to minimize the risk of illness. According to Suh, Eves, and Lumbers (2012), positive consumer attitudes toward healthy foods are typically obtained from beliefs about the benefits for their health. Health-concerned consumers are likely to place greater emphasis on food safety and have positive attitudes toward healthy products such as organic foods. Following the study by Salleh, Ali, Harun, Jalil, and Shaharudin (2010), consumers' perceived value and health consciousness are influential factors affecting Malaysian consumers' purchase intention toward healthy foods. Meanwhile, knowledge contained in the consumer's memory is an influential factor in their purchase decision. Product knowledge is explained as the consumer's recollection and/or understanding concerning a product

(Moorman et al, 2004). Consumers highly involved in a purchase are likely to undertake a detailed information search about its advantages and disadvantages. This study hypothesizes that

H1: Health consciousness influences the attitude toward Allicin supplements.

H2: Product knowledge influences the attitude toward Allicin supplements.

H3: The attitude toward Allicin supplements influences the intention to purchase garlic-based supplements with a higher Allicin content.

Following the suggestion by Ajzen (1991), a subjective norm refers to the perception of social pressure concerning whether or not to perform certain behavior, which can influence a person's decision. Subjective norms can be created from friends, family, the public, endorsers, politicians, and others. Meanwhile, Teo and Lee (2010) mentioned that subjective norms from reference groups, family, friends, and co-workers significantly affect the intention of an individual toward a particular behavior. Jabareen (2005) pointed out that cultural and social factors play an essential role in influencing the choice preferences of individuals. This study hypothesizes that

H4: Subjective norms influence the purchase intention toward garlic-based supplements with an Allicin content.

Ajzen (1991) suggests that perceived behavioral control represents an individual's beliefs in relation to the capability and accessibility of resources as well as the opportunities needed to engage in such behavior. According to Ajzen (1991), perceived behavioral control can be classified into two dimensions: the availability of required resources for engaging in certain behavior such as time, money, etc., and an individual's self-confidence in their capability for performing such behavior. The concept of perceived behavioral control is almost compatible with the concept of perceived self-efficacy. Self-efficacy concerns the assessment of how well an individual can perform the actions needed to deal with specific situations. In other words, the behaviors are significantly affected by a person's confidence about his or her capability to perform such behaviors, whereby the perceived behavioral control reflects the individual's perception of his or her ability to perform certain behavior. In a previous study by Chen (2009), the results indicated that positive attitudes, subjective norms, and behavioral control perceptions all significantly enhance consumers' intention to purchase. He concluded that confidence in the ability of an individual to control their behavior was positively related to purchase intention. This study hypothesizes that

H5: Perceived behavioral control influences the purchase intention toward garlic-based supplements with a higher Allicin content.

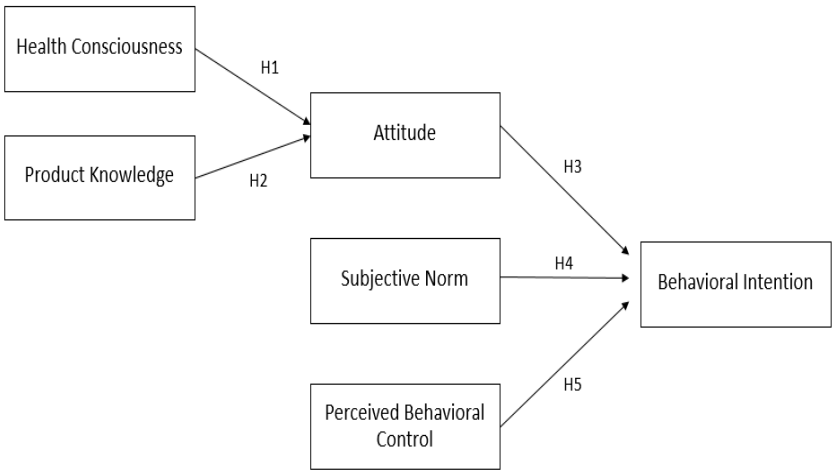

Figure 1: Conceptual framework developed by the researcher for this study

In this research, two factors were found to affect the attitude toward Allicin supplements, including health consciousness and product knowledge. Meanwhile, the attitude toward Allicin supplements, subjective norms, and perceived behavioral control are proposed as influential factors affecting the purchase intention of garlic-based supplements with a higher amount of Allicin.

Research Methodology

This study used a quantitative approach to examine the hypothesis. A non-probability sampling with the use of quota sampling technique was adopted to collect the data from the respondents who were Thai consumers in Thailand through online survey. Under this technique, the researcher divides the population of interest into two groups of them in regard to gender which was considered as equally important to the response with the proportion of 50/50. They were between 18 -60 years old and living in Thailand. From 400 sample size, the respondents in this study consisted of 200 males for 50% and 200 females for another 50% who were between 18 -60 years old regardless to their education, income, and marital status. The questionnaire were divided into three parts; the first part was for collecting demographic and general information of respondents; the second part was for exploring the consumer behaviors toward the purchase and use of supplements; and the last part was for measuring the variables through the use of 5-point Likert scale from strongly disagree (1) to strongly agree (5). The measurement scales for variables in the last part of questionnaire were applied from the relevant previous studies in regard to the validity of research instruments, including those of health consciousness (Suh, Eves, & Lumbers, 2012; Salleh, Ali, Harun, Jalil & Shaharudin, 2010), product knowledge (Moorman et al, 2004), attitude toward Allicin supplement (Ajzen, 1991; Suh, Eves, & Lumbers, 2012; Salleh, Ali, Harun, Jalil & Shaharudin, 2010), subjective Norm (Teo & Lee, 2010), perceived behavioral control (Chen, 2009), and purchase intention (Magistris & Gracia, 2008; Suh, Eves, & Lumbers, 2012; Salleh, Ali, Harun, Jalil & Shaharudin, 2010). A pretest was conducted to establish the reliability of the questionnaire survey in a small group before distribution to the target population. The reliability test was conducted on 30 respondents, and represented by Cronbach's alpha coefficient as shown in Table 1. As can be observed from Table 1, the reliability statistics for all variables were greater than 0.7 of Cronbach's alpha value.

Results

From the 400 respondents, 200 (50.0%) were female and 200 (50.0%) were male. The ages of 154 respondents (38.5%) were between 26-35 years old, while 101 respondents (25.3%) were between 18-25 years old; 88 respondents (22%) were more than 45 years old, and 57 respondents (14.3%) were between 36-45 years old. Respondents with an education level of bachelor degree formed the largest group (62.8%), followed by those with higher than a bachelor's degree (24.8%), and respondents with a qualification lower than a bachelor's degree (12.5%). The majority of respondents were single (72.8%), while 23.3% were married, and another 4% were divorced or widowed. The earnings of 93 respondents (23.3%) were about 45,001-60,000 baht per month. There were 90 respondents (22.5%) who earned between 15,000-30,000 baht per month; while 89 respondents (22.3%) earned more than 60,000 baht per month; 69 respondents (17.3%) earned less than 15,000 baht per month; and the remaining 59 respondents (14.8%) earned between 30,001-45,000 baht per month.

Based on a self-assessment of their health conditions, 211 respondents (52.8%) had good health, while 90 respondents (22.5%) had fair health; 80 respondents (20%) had excellent health, and only 19 respondents (4.8%) had poor health conditions. Most respondents (48.5%) slept 6 hours or less per night. The majority, 340 respondents (85%), had no medical problems. Of those who had medical problems, high blood pressure was the most commonly

experienced among them (10.4%), followed by diabetes (2.7%), asthma (1.5%), and arthritis (1%), respectively. The majority, 159 respondents (39.8%), never exercised. Most were non-smoking (91.3%) and non-alcohol consuming (57.5%).

The majority of respondents (92.8%) had purchased supplements, with vitamins being the most popular supplement category (31.7%), followed by herbs and herbal extracts (24%), minerals (15.8%), animal extracts (9.6%), amino acids (9.3%), and fatty acids (6.4%). Most respondents used supplements for health benefits (58.5%), followed by those who used them for weight control (20.3%), muscle building (19.8%), beauty (1%), and athletic ability (0.3%). There were 130 respondents (32.5%) who almost never ate meals containing garlic in a week; 117 respondents (29.3%) ate meals containing garlic about 2-4 times a week; 89 respondents (22.3%) usually ate meals containing garlic about once a week; 50 respondents (12.5%) usually ate meals containing garlic about 5-7 times a week; and 14 respondents (3.5%) usually ate meals containing garlic more than 7 times a week. The top five benefits of garlic as perceived by the respondents consisted of a reduction in cholesterol levels (16.9%), followed by improvement in digestion (15.4%), prevention and treatment of the common cold (11.9%), reduction in blood pressure (10%), and improvement in the immunity system (9.5%). Only 130 respondents (32.5%) had ever purchased garlic-based supplements, with the most favored forms being tablets (65.4%), powder in a capsule (31.5%), and oil extract (3.1%). Of the 130 respondents who took garlic-based supplements, 42.3% took them less than once a week. Direct selling was the most popular channel for obtaining the supplements (66.2%), followed by drug stores (23.8%), online (6.9%), convenience stores (1.5%), and supermarkets (1.5%), respectively. The respondents were most concerned with the brand or producer when purchasing garlic-based supplements (31%), followed by recommendations from pharmacists or doctors (17.8%), price (15.9%), convenience in buying (12%), recommendations from family or friends (10.1%), recommendations from sales representatives (9.3%), packaging (2.3%), and information on social media (1.6%). Of the 130 respondents who were experienced users of garlic-based supplements, 46.9% had never heard about Allicin and its benefits; 49.2% considered the amount of Allicin content when purchasing garlic-based supplements; while 71.5% were willing to pay more for greater Allicin content in garlic-based supplements.

The 5-point Likert scale was used to measure each construct of variables from (1) “strongly disagree” to (5) “strongly agree.” The mean score for health consciousness was highest (mean = 4.31, SD = .816), while the mean score for subjective norms was lowest (mean = 3.03, SD = .999).

Table 1: Descriptive Analysis and Correlation Matrix

Variables	**Mean**	**SD**	**1**	**2**	**3**	**4**	**5**	6
1. Health consciousness	4.31	.816	1					
2. Product knowledge	3.58	.926	.577*	1				
3. Attitude toward Allicin supplements	3.50	1.006	.479*	.872*	1			
4. Subjective norms	3.03	.999	.352*	.653*	.688*	1		
5. Perceived behavioral control	3.31	.977	.405*	.714*	.814*	.784*	1	
6. Purchase intention	3.14	1.131	.274*	.632*	.773*	.762*	.816*	1

*Correlation is significant at the 0.01 level (one-tailed)

In Table 1, the results from the Pearson correlation analysis suggest that a positive relationship exists between health consciousness ($r = .479$, $p < .01$) and product knowledge ($r = .872$, $p < .01$) in respect of the attitude toward Allicin supplements. Meanwhile, there is a positive relationship between the attitude toward Allicin supplements ($r = .773$, $p < .01$),

subjective norms (r = .762, p < .01), and perceived behavioral control (r = .816, p < .01) regarding the intention to purchase garlic-based supplements with a higher Allicin content.

Table 2: Results of MLR 1

Variables	Beta	VIF
Health consciousness	-.036	1.498
Product knowledge	.893*	1.498
R-Square (R^2)	.762	
Adjust R^2	.760	

*p ≤ 0.05

From Table 2, multiple linear regression analysis was used to identify the influence of health consciousness and product knowledge on the attitude toward Allicin. The analysis results are shown in Table 4 below. As can be observed in Table 4, the VIF score was used to explore the multicollinearity problem among health consciousness and product knowledge, for which a score of less than 5 means that there was no multicollinearity problem between them. The adjusted R-Square (R^2) of .760 suggests that health consciousness and product knowledge could collectively explain the attitude toward Allicin supplements at 76%. The results suggest that their product knowledge has a significant influence on the attitude toward Allicin supplements (B = .893, p < .05). This means that greater product knowledge leads to a more favorable attitude toward Allicin supplements. Meanwhile, health consciousness had no significant influence on the attitude toward Allicin supplements (p > .05).

Table 3: Results of MLR 2

Variables	Beta	VIF
Attitude toward Allicin supplements	.279*	3.021
Subjective norm	.280*	2.649
Perceived behavioral control	.369*	4.128
R-Square (R^2)	.731	
Adjust R^2	.729	

*p ≤ 0.05

As shown in Table 3, multiple linear regression analysis was used to identify the influence of attitude toward Allicin, subjective norms, and perceived behavioral control on the intention to purchase garlic-based supplements with a higher Allicin content. Table 5 shows the VIF score used to explore the multicollinearity problem among the attitude toward Allicin supplements, subjective norms, and perceived behavioral control, for which a score of less than 5 means that there was no multicollinearity problem between them. The adjusted R-Square (R2) of .729 suggests that the attitude toward Allicin supplements, subjective norms, and perceived behavioral control could collectively explain the purchase intention of garlic-based supplements with a higher Allicin content at 72.9%. The results suggest that the attitude toward Allicin supplements had a significant influence on the purchase intention of garlic-based supplements with a higher level of Allicin (B = .279, p < .05). This means that a more favorable attitude toward Allicin supplements leads to a greater intention to purchase garlic-based supplements with a higher level of Allicin. The results suggest that subjective norms have a significant influence on the intention to purchase garlic-based supplements with a higher level of Allicin (B = .280, p < .05). This means that greater social influence leads to an increase in the purchase intention toward garlic-based supplements with a higher level of Allicin. Finally, the results suggest that perceived behavioral control has a significant influence on the intention to purchase garlic-based supplements with a higher level of Allicin

(B = .369, p < .05). This means that higher perceived behavioral control leads to higher purchase intention toward garlic-based supplements with a higher level of Allicin.

Conclusion

Supplements have grown in popularity among urban consumers who consider they have insufficient nutrition for good health, consuming little or no fresh fruits and vegetables compared with in the past. In addition, supplements offer consumers more convenience in obtaining a sufficient amount of nutrition without changing their eating habits. There are many kinds of supplements in today's marketplace, including vitamins, minerals, amino acids, fatty acids, herbs and herbal extracts, and animal extracts. Garlic is a herb that is grown around the world and one of the most popular due to its numerous benefits. The major aim of this study is to investigate the factors affecting the purchase intention of garlic-based supplements with a higher content of Allicin among Thai consumers. The quantitative research was carried out through an online questionnaire survey consisting of 400 Thai consumer respondents. The results suggest that product knowledge has a significant influence on the attitude toward Allicin supplements. This means that greater product knowledge leads to a more favorable attitude toward Allicin supplements. Meanwhile, health consciousness had no significant difference on the attitude toward Allicin supplements. Furthermore, the results suggest that the attitude toward Allicin supplements has a positive influence on subjective norms and perceived behavioral control in the intention to purchase garlic-based supplements with a higher level of Allicin. This means that a more favorable attitude toward Allicin supplements leads to an increase in the purchase intention of garlic-based supplements with a higher level of Allicin, while greater social influence leads to an increase in the intention to purchase garlic-based supplements with a higher level of Allicin, and higher perceived behavioral control leads to an increased intention to purchase garlic-based supplements with a higher level of Allicin.

Recommendations

The results suggest that product knowledge has a significant influence on the attitude toward Allicin supplements, which in turn further affects the intention to purchase garlic-based supplements with a higher level of Allicin. Therefore, marketers or producers of Allicin supplements should try to inform consumers about its benefits. The QR code on the packaging is useful for providing more information about the product through the link to the website or YouTube. The results suggest that perceived behavioral control had the strongest influence on the purchase intention toward garlic-based supplements with a higher level of Allicin. The marketers or producers of Allicin supplements should be concerned about the maximum price they are willing to pay for the product, accessibility to consumers through appropriate distribution channels such as direct selling, online, and drug stores, and product guarantees to enhance consumer confidence. In addition, the results suggest that greater social influence leads to an increase in the purchase intention toward garlic-based supplements with a higher level of Allicin. Therefore, the marketers and producers of Allicin supplements may consider using social media to influence consumers through encouraging them to "Like" and "Share" their products.

Further Study

This study focuses on the purchase intention of garlic-based supplements with a higher level of Allicin. The results, therefore, may not be applicable to other supplements. Future research is recommended on the study of other supplements. In addition, this study was limited to consumers in Thailand. The results may not be applicable to consumers in other countries due to the difference in cultural factors among different geographical locations. In this regard, it is

also recommended that any further study incorporates other geographical locations for generalization purposes. Furthermore, this study has limitations concerning quantitative research, which is not always appropriate for a clear understanding of the phenomenon. Therefore, future research is recommended in order to apply qualitative research or even the mixed method of both quantitative and qualitative research so as to avoid the limitations involved with quantitative research.

References

Ajzen, I. 1991. "The Ajzen theory of planned behavior." **Organizational Behavior and Human Decision Processes** 50 (2): 179-211.

Ajzen, I. & Fishbein, M. 1980. **Understanding Attitudes and Predicting Social Behavior**. Englewood Cliffs: Prentice-Hall.

Alwan, A. & MacLean, D. 2009. "A review of non-communicable disease in low-and middle-income countries." **International Health** 1: 3-9

Chen, F. 2009. "Attitude toward organic foods among Taiwanese as related to health consciousness, environmental attitudes, and the mediating effects of a healthy lifestyle." **Journal of British Food** 111 (2): 165-178.

Chuang, J., Stoel, J., Xu, Y. & Ren, J. 2010. "Predicting Chinese consumers' purchase intentions for imported soy-based dietary supplements." **British Food Journal** 114 (1): 143-161.

Djekic, I., Smigic, N., Kalogianni E., Rocha, A., Zamioudi, L., & Pacheco, R. 2013. "Food hygiene practices in different food establishments." **Food Control 39** 34 (40): 184-245.

Fishbein, M. 1974. "Attitude and the Prediction of Behavior." In M. Fishbein (ed.). **Readings in Attitude Theory and Measurement.** New York: Wiley

Jabareen, Y. 2005. "Culture and Housing Preferences in a Developing City." **Environment and Behavior** 37 (1): 134-146.

Jiang, Y., Thanabordeekij, P., & Chankoson, T. 2018. "Factors Influencing Chinese Consumers' Purchase Intention for Thai Products and Travel in Thailand from Thai Dramas and Films." **PSAKU International Journal of Interdisciplinary Research** 7 (1): 233-243.

Karnreungsiri, I. & Praditsuwan, N. 2017. "Factors Influencing Buying Behavior and Buying Decision Process of Customers: An Examination on Relationship using One-Way Analysis of Variance." **PSAKU International Journal of Interdisciplinary Research** 6 (2): 76-84.

Lawson, L. & Hunsaker S. M. 2018. "Allicin Bioavailability and Bioequivalence from Garlic Supplements and Garlic Foods." **Nutrients** 10 (7): 812.

Magistris, T., & Gracia, A. 2008. "The decision to buy organic food products in Southern Italy." **Journal of British food** 110 (9): 929-947.

Marles, R. J. 2017. "Mineral nutrient composition of vegetables, fruits and grains: The context of reports of apparent historical declines." **Journal of Food Composition and Analysis** 56: 93-103.

Moorman, C., Diehl, K., Brinberg, D., Kidwell, B., Bettman, J., Chartrand, T., Levav, J., Lynch, J., Mela, C., & Rose, R. 2004. "Subjective Knowledge, Search Locations, and Consumer Choice." **Journal of Consumer Research** 31 (10): 673-680.

Newson, R., Lion, R., Crawford, R. J., Curtis, V., Elmadfa, I, Feunekes, G., Hicks, C., Uauy, R. 2013. "Behaviour change for better health: nutrition, hygiene and sustainability." **BMC Public Health** 13 (S1).

Nutrition Business Journal 2004. "Popularity of western supplements yields growing sales in China." **Nutrition Business Journal** 9 (10/11): 19-21.

Nutrition Business Journal 2007. **Global nutrition industry VI.** Retrieved from www.newhope.com/managing-your-business/global-nutrition-industry-vi.

Salleh, M., Ali, S., Harun, E., Jalil, M., & Shaharudin, M. 2010. "Consumer's perception and purchase intentions towards organic food products." **Canadian Social Science** 6: 119-129.

Son, S., & Kijboonchoo, T. 2016. "The Impact of Korean Wave on the Purchase Intention of Korean Cosmetics of Thai People in Bangkok and Chonburi, Thailand." **PSAKU International Journal of Interdisciplinary Research** 5 (2): 76-83.

Suh, B., Eves, A. & Lumbers, M. 2012 "Consumer's Attitudes and Understanding of Organic Food: The Case of South Korea." **Journal of Foodservice Business Research** 15 (1): 49-63.

Teo, T., & Lee, C. 2010. "Explaining the intention to use technology among student teachers." **Campus-Wide Info Systems** 27 (2): 60-67.