FACTORS INFLUENCING CUSTOMER ATTITUDE AND BEHAVIORAL INTENTION TOWARDS CONSUMING DIETARY SUPPLEMENTS

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ABSTRACT: *The purpose of this study is to determine the key aspects that influence customer attitude towards dietary supplement and their behavioral intention to consume dietary supplements. The theory of planned behavior (TPB) is studied as the theoretical framework for this study with small adjustment to derive the conceptual framework. The sample data (n=402) were collected through online questionnaire using google forms. The researcher used convenience sampling method to pick the respondents. The data were analyzed through Structural equation model (SEM) to derive model fit and test the hypotheses. From all the factors in the TPB model, Informational influence (Subjective norm) and Perceived behavioral control did not have a significant influence on attitude and behavioral intention of the consumer of dietary supplements. Attitude is the strongest influence in shaping behavioral intention of a consumer. However even though normative influence (Subjective norm) isn't directly significant towards behavioral intention, it does have some indirect effect. The findings of the research showed that attitude about dietary supplements has the strongest influence toward behavioral intention. However even if Normative influence didn't have a significant direct influence, it did have an indirect effect as normative influence is the strongest and only factor that influences their attitude. Hence when promoting dietary supplement companies should focus on building a strong and positive attitude about their product through favorable normative influence. This study uses TPB to investigate factors influencing Behavioral intention to consume dietary supplements in Bangkok, Thailand.*

Keywords: *Theory of planned behavior (TPB), normative influence (Subjective norm), Informational influence (Subjective norm), perceived behavioral control (PBC), attitude, behavioral intention, dietary supplement.*

Paper type: Original paper

Introduction

In today's age there is a growing concern that the potential of chronic diseases is cause due to poor dietary practices in both developed and developing countries. Even though there are many research and evidence connecting nutrition deficiency to possibility of greater risk of chronic illnesses, the role of dietary supplements in disease prevention and health promotion activities are recognized by many health professionals (McGinnis

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& Ernst, 2001). Due to an increase in the aging population worldwide there is further encouragement in using health related dietary supplements in improving health condition. Despite the clear evidence for problems arising due to poor dietary practices, there are signs of people from all around the world becoming more health conscious as reflected by the increase in country's expenditure for health related and medical products. For example, the health expenditure in Thailand has seen a continuous increase in the expenditure for health since 2002 to 2015, increasing from around 50 USD per capita to around 200 USD per capita in 2015 (WHO, 2017). This shift suggests a trend toward a healthier

lifestyle with some degree because of increase in disposable income, improved level of education and improvement in the standard of living as Thailand's GDP has seen an average growth rate of around 3.9% as of 2015. Therefore, this study is to see what factors drive people to keep purchasing dietary supplements. The findings would be useful for consumer and marketers of these kind of products.

As a base of the study, the researcher used the theory of planned behavior (TPB). TPB is made up by three main social cognitive predictors of behavioral intention (Ajzen, 1991). The social cognitive predictors are attitude of a person, subjective norm (normative and informational influence) and perceived behavioral control (PBC). In this study, the researcher aimed to identify the relationship and to what extent these social cognitive influences on intention to consume dietary supplements. There are still a few adjustment or addition made to the TPB model. Firstly, even though previous research has seen links between social factors and behavioral intention, they haven't focused on attitude of the consumer toward dietary supplements as a mediating role. Secondly, the original TPB has only one social factor which is called normative influence which offer a very narrow perspective of social factor, therefore the researcher added informational influence in the framework to provide a clear picture in respect to the relationship between the dependent and independent variables. Finally, this research on dietary supplements in the context of Thailand will provide contribution for both marketing and practice knowledge for dietary supplements.

Literature Review

Normative Influence

According to Deutsch and Gerard (1955), the influence towards the positive expectation of people which is further characterized by value expressiveness or utilitarian is known as normative influence. Furthermore, when an individual try to imitate the behavior of a desired reference group in order to improve their self-image for the group is known as value expression, whereas in order to gain reward or avoid negative reinforcement an individual trying to imitate or copy the group's behavior. Therefore, normative influence grows within a person whose motivation is to be rewarded, avert rejection or following other's behavior to fit the social norm. An individual can achieve this by following behavior of other people or group to obtain positive response from that person or group, even if they don't agree with those behavior (Kelman, 1961).

In a more conventional form, normative influence is said to be present in a group where individuals share membership and are socially interdependent on each other (Deutsch & Gerard, 1955). Research also suggests that the stronger the interdependence and interaction amongst the group member the greater normative influence will be (Di Vesta, 1959). Additionally, if the group members have similar interest the level of normative influence will be stronger. Surprisingly, even non-conventional groups have normative influence (Lascu & Zinkhan, 1999). For example, an individual's purchase intention is affected if he/she see any post or likes in a social media page whose members consist of people with similar interest but do not know each other personally. This likes or post act as a normative influence for the individual with the purchase intention (Kuan, Zhog, & chau, 2014). For this study, the researcher investigated how individual is affected by the group they belong to, in the case of dietary supplements. It can be people who take dietary supplements from the place they workout with, the social group they belong, or even people who they follow in social media.

Correspondingly, how these social factors affect their attitude toward dietary supplements and how it directly influences behavioral intention of a person. Therefore, the hypotheses are determined as the following:

H₁: Normative influence has a significant influence on consumer's attitude about dietary supplements.

H₂: Normative influence has a significant influence on behavioral intention to consume dietary supplements.

Informational Influence

When an individual wants an accurate view of reality with which they want to comply with, this triggers informational influence (Turner, 1991). The main driver for this is uncertainty. This will generate a sort of dependency on other people with experience to provide information (Deutsch & Gerard, 1955), especially when one's ability to make a judgement is doubtful (Cohen & Golden, 1972).

The key aspect of the informational influence is the source of the information. People will try to find valid information from people who are trustworthy or have prior experience with the topic because it will be tough to identify objection information these days (Cohen & Golden, 1972). Due to this source credibility is extremely important, they should know how to effectively communicate accurate information and should also be a person who is trustworth and has expertise in the topic/field (Kelman, 1961). Having a quality source with additions of attractiveness, skills and competence can enhance informational influence (Crano, 2000; McGuire, 1969). Moreover, the individual seeking for information will believe and adopt the information if the source is credible. For this study the researcher investigated on how individual might be affected due to this kind of influence. In this case the source of information can be someone with expertise like a personal trainer, a famous social media influencer or a close friend who has experience. Correspondingly, how this social factor affects their attitude towards dietary supplements and how it directly influences behavioral intention of a person to consumer dietary supplements. The following hypotheses as defined:

H₃: Informational influence has a significant influence on consumer's attitude about dietary supplements.

H₄: Informational influence has a significant influence on behavioral intention to consume dietary supplements.

Perceived Behavioral Control (PBC)

Before the researcher dig into perceived behavioral control, the researcher must look at an original theory of reasoned action whose limitation in dealing with behaviors over which individuals have incomplete volitional control (Ajzen, 1991). Although other researcher disagreed with Ajzen (1991) and claimed that the theory of reasoned action cannot deal with behaviors that need skills, cooperation and resource (Liska, 1984; Sheppard, Hartwick, & Warshaw, 1988). He responded to this by proposing an extension for the existing model called "the theory of planned behavior" (Ajzen, 1985). Depending upon the amount of resources and control has over the behavior, an individual's intention to perform behaviors can be carried out. This means the likelihood of a behavior to be achieved to some extent must depend upon the opportunity and resources available to an individual.

The access to resources and opportunities needed to perform a behavior reflects to perceived behavioral control. This comprises of two components (Ajzen, 1991; Taylor & Todd, 1995), firstly is the availability of resources needed to perform a behavior which may include access to time, money and other resource. Secondly would be the individual's ability and self-

confidence to perform the behavior. This study will take these two factors into account to look at the individual's attitude toward dietary supplements and their behavioral intention. The first factor which is the availability of resources, this will be the person who wants to buy dietary supplements and the amount of disposable income or availability of supplement retailers. As for the second factor, it will be the discipline to take supplements every day and at a time and their willpower to continue taking the supplements.

Bandura's (1977) concept of perceived self-efficacy which is very much similar and is compatible with the concept of perceived behavioral control. In this concept of self-efficacy which is concerned mostly with the individual's judgement of how one can perform a task in certain situations. How confident a person is to complete a certain task greatly influence their behavior. The theory of planned behavior takes this concept of self-efficiency and places it in a more common framework. For this study, the researcher investigated how these PBC and their components influence their attitude toward dietary supplements and how they directly influence their behavioral intention. Thus, the following hypothesis is proposed:

H5: Perceived behavioral control has a significant influence on consumer's attitude about dietary supplements
H6: Perceived behavioral control has a significant influence on behavioral intention to consume dietary supplements

Attitude

According to Fishbein and Ajzen (1975), attitude is when an individual always responds in a favorable or unfavorable manner with respect to a given object because of the individual's predisposition which he/she learned in the past.

Conceptually, attitude is when a person associates with a product or service with some form of positivity or negativity (Eagly & Chaiken, 1993). An abstract which represents a feeling or opinion about an individual, a tangible object, service or current issue is also called attitude (Zajonc & Markus, 1982). This belief or feeling towards a product or service will lead to a definitive behavioral intention which is our independent variable and will be discussed later in the report. Hence the study will look on how these consumers' attitude about the dietary supplement, how they perceive them in terms of value, usefulness and importance and the affect to their behavioral intention. Furthermore, how the social influences (Normative and informational influence) and PBC affect the consumers attitude toward dietary supplements, and how these attitudes shape their behavioral intentions.

Behavioral Intention

According to Zeithaml, Berry, and Parasuraman (1996), whether a customer will repurchase or switch to other company can be predicted through behavioral intention. They can be either positive or a negative behavioral intentio. Positive word of mouth, paying premium price repurchasing from the same company are one of the favorable behavioral intentions. Whereas spreading negative word of mouth, taking legal action against the company and not repurchasing can be forms of unfavorable behavioral intention.

Behavioral intention can also be referred to as the probability of an individual to behave in a specific manner soon and can be associated with the theory of reasoned action (Southey, 2011). Additionally, if the firms want to maintain long terms relationship with the customer, having an idea of their behavioral intention is very important (Amin & Nasharuddin, 2013). According to Parasuraman, Berry and Zeithaml (1994), who is well known for the most detailed classification of behavioral intention has classified into for major categories which includes price

sensitivity, repurchase intention, word of mouth communication and complaint behavior. This study will look at behavioral intention, more specifically their intention to take dietary supplements. Also, how the social influence and PBC affect their behavioral intention and how these factors affect the individual's attitude toward the idea of dietary supplements which will decide their behavioral intention to the usage of dietary supplements. The hypothesis is determined as:

H_7: Consumer's attitude toward dietary supplement has a significant influence on behavioral intention to consume dietary supplements.

Research Objectives

This study uses TPB (Ajzen, 1991) as framework in a search to conclude behavioral intention of a person in respect to dietary supplements in Thailand. The TPB framework which includes the social factors which is called normative and informational influence, the internal factor which is PBC and also attitude of a person in order to predict if the consumer's behavioral intention is favorable or not. These social and internal factors will be used to analyze the influence on attitude of a person about dietary supplement and behavioral intention to consume dietary supplements.

Conceptual Framework

Based on the TPB, literature review and research objectives the researcher developed our conceptual framework and conduct studies to see the direct and indirect relationship of social factors and PBC with behavioral intention. In addition, the researcher studied on the direct relationship of attitude formed due to social factor and PBC and behavioral intentions.

Method

The research is designed with detailed planning to use as a guideline to accomplish the research objectives. The study used non-probability sampling which is a form of convenience sampling method. The researcher adapted this by making a questionnaire survey for data collection to collect at least 400 responses from people living in Bangkok Thailand who are health conscious and do take any kind of dietary supplements. The survey consist of three different sections, firstly is the screening questions were asked to the respondents if they are health conscious and are taking any form of dietary supplements to see if they fit the requirement for the research. Secondly, the researcher measured 5 variables with the use of five-point Likert scale to see how much they agree or disagree with the given hypotheses.

Lastly, the researcher gathered the respondents' demographic information like age, sex and income level to learn more about relation between demographic factors and the dependent variables.

Before the researcher started collecting data from 400 respondents, the researcher first tested how reliable the questionnaire was for the research. The researcher adapted this by conducting a sample survey where there will be only about 30 respondents and use Cronbach's alpha method to analyze the reliability of the questionnaire. After the test concludes, the questions are reliable. The questionnaire was then distributed to 400 respondents through offline and online channels. By this sample size is designed to be suitable with the structural equation model (SEM) technique. The data which showed below are from the analysis done in program called SPSS AMOS Version 26. To perform the convergent validity and discriminant validity result, the researcher has used the confirmatory factor analysis. Also, to ensure the validity and reliability of the model was used as a measurement model fit to test the overall fit compared to the data. Finally, structural equation model (SEM) was used to verify the influence on the variables.

Measurement to understand the relevant variables and the relation between them, the researcher explained in the literature review. Also, with the development of the conceptual framework it allows us to get a deeper understanding of the relations amongst the variables in this research. Asor the variables in the questionnaire, the researcher applied a Likert scale which has 5 points to measure the attitudes and opinions of respondents towards them and analyze each of them in relation to the intention to use dietary supplements. The 5-point Likert scale starts from (1) strongly disagree (2) disagree (3) neutral (4) agree and (5) strongly agree.

Sample

For this research the respondents need to be people living in Bangkok, Thailand who are health conscious. With the help of A-priori sample size calculator for the structural equation models from danielsoper's website, the study found the minimum sample size needed for this study to be accurate. By putting in the latent variable which is 6 as the researcher had 6 variables, 30 observed variables as the researcher had 30 total questions for the variables and setting probability level at 0.05. The results that the researcher got from this calculation was a recommendation of 402 minimum sample size. After screening and cleaning the data, there were around 402 data sample which can be used for this study.

Sampling Technique
Non-probability sampling method is a type of convenience sampling method which the researcher used to collect data from 400 respondents. The questionnaires were equally distributed through offline and online channels. Offline channels selected for survey are at fitness gyms and dietary supplement stores around Bangkok to reach respondents who are health conscious. For online channels, the questionnaires were distributed through social medias like Facebook, Instagram and line so that it will be easy and convenient for people to participate in the research. This method makes it convenient even for the researcher to reach their target population. This is the easiest way to get 400 respondents and is very effective way of gather large number of primary source data which will be used for this study (Saunders, Lewis, & Thornhill, 2012).

Before the researcher started to gather data from the 400 respondents, the researcher first did a pilot test with 31 samples to see if the questions for the variables were reliable or not. The researcher applied Cronbach's Alpha test to analyze the 31 samples data to get result of reliability for the questions in the survey which the researcher can get from the program called the SPSS AMOS Version 26. If the results depicted the Cronbach's Alpha value is greater than 0.7, it is said that the questions developed for the survey is reliable for data collection (Tavakol & Dennish, 2011).

As shown in table 1 below, the researcher can see the Cronbach's Alpha score of all variables are well above 0.7. Thus, we can conclude that the questionnaire's construct variable is said to be highly reliable.

Table 1: Reliability Test (Consistency of the Scales Test N=31)

Variables	Source of Questionnaire (Measurement Indicators)	Number of items	Cronbach's Alpha
Normative Influence (NI)	Bearden, Netemeyer and Teel (1989); Ajzen (2002)	5	0.872
Informational Influence (IF)	Bearden *et al.* (1989)	4	0.854

Perceived behavioral control (PBC)	Ajzen (2002); Hagger and Chatzisarantis (2005)	5	0.842
Attitude (AT)	Conner, Kirk, Cade and Barrett (2001); Hagger and Chatzisarantis (2005)	5	0.942
Behavioral Intention (BI)	Ajzen (2002)	5	0.946
Heath motivation (HM)	Noor, Yap, Liew and Rajah (2014)	6	0.895

Result and Discussion

This is where the demographic data were collected from 402 respondents from Bangkok, Thailand, who are health conscious are summarized. The Demographic profile has been summarized in the below table 2.

Table 2: Demographic Information

Demographics	Characteristics (N=402)	Frequency	Percentage
Gender	Male Female	214 188	53.2 % 46.8%
Age	18-24 25-34 35-50 50+	195 176 29 2	28.5% 43.8% 7.2% 0.5%
Income level	Less than 20,000 BHT 20,001-40,000 BHT 40,001-80,000 BHT Above 80,000 BHT	178 93 23 108	44.3% 23.1% 5.7% 26.9%
Education	High School Bachelor's Degree Master's Degree PH. D	6 245 147 4	1.5% 60.9% 36.6% 1%
Supplement consumption	At least once a week Twice a week More than 3 times a week	52 192 158	12.9% 47.8% 39.3%

From the above table, most of the respondents were male which consisted 53.2% of the total respondents and the remaining were female, which were 46.8%. According to the age, most of the respondents were aged between 25-34 years old, which contributed 43.8%, followed by 18-24 years old which contributed 28.5%, then were the 35-50 years old which contributed 7.2% and last one was of the age 50+ which only

contributed around 0.5%. According to the income level of the people the top respondents were from the category with monthly income of less than 20,000 BHT which contributed 44.3% of total respondents, followed by people earning 80,000+ BHT which contributed 26.9%, then people earning 20,001-40,000 BHT which contributed around 23.1% and lastly came the people earning 40,001-80,000 BHT with only 5.7% of contribution. Next comes the education level of the respondents with majority of them holding a bachelor's degreat around 60.9%, followed by master's degree at around 36.6%. Lastly the supplement intake rate with majority of them taking them twice a week at around 47.8% followed by taking them more than 3 times a week at 39.3% and people who take them at least once a week at around 12.9%

Confirmatory Factor Analysis (CFA)

Before the researcher used the data collected from the 402 samples for structural equation modelling (SEM), the researcher has used the statistical technique called confirmatory factor analysis (CFA) to survey the factor structure of the set of observed variables. With CFA, the researcher was able to check existing hypotheses relationship between observed variables and latent variables to check their fitness of measurement model.

After checking the fitness model, the researcher went further into the assessment of the construct validity which will analyze the main component of the construct validity which are called

discriminant validity and convergent validity. Evaluation of the convergent validity is done through an assessment of observed variable's factor loadings and their statistical significance, which will be followed by the assessment of the factor's average variance (AVE) and composite reliability (CRs). Convergent validity consists of all these mentioned items and they need to have a minimum score which is, factor loading$\geq$0.5, Statistical significance (t-value) $p<0.05$ (Hair, Black, Babin, & Anderson, 2009), AVE>0.5 and CR$\geq$0.7 (Fornell & Larcker, 1981). As displayed below in table 3, there are certain equation forms which the researcher found the CR and AVE, these are developed by Fornell and Larcker (1981).

After getting the result, the researcher had to remove some of the questions as it didn't meet the required criteria for factor loading.

As for the discriminant validity, it is evaluated by calculating square root of each AVE. The value the researcher got after computing for discriminant validity is greater than al inter-construct/factor correlations, therefore the discriminant validity is supportable as show in below table 4.

The confirmatory factor analysis was used to test the 5 alternative variables for measuring the model fit (Hu & Bentler, 1999). The purpose of CFA is to demonstrate that the hypothesis about theories indicate a very good fit if the criteria is met. The goodness of fit is how below in table 5.

Table 3: Confirmatory Factor Analysis (CFA), Composite Reliability (CR), and Average Variance Extracted (AVE) Results

Variable	Factor loading	S.E.	T-Value	CR	AVE
Normative Influence (NI)				0.807	0.512
NI2	0.613				
NI3	0.756	0.118	11.799 ***		
NI4	0.748	0.120	11.719 ***		
NI5	0.736	0.113	11.594 ***		

				CR	AVE
Informational Influence (IF)				0.804	0.506
IF1	0.698				
IF2	0.708	0.083	12.233 ***		
IF3	0.728	0.084	12.512 ***		
IF4	0.710	0.089	12.268 ***		
Perceived Behavioral Control (PBC)	0.716			0.827	0.545
PBC2	0.711	0.104	12.386 ***		
PBC3	0.749	0.097	12.905 ***		
PBC4	0.775	0.108	13.204 ***		
PBC5					
Attitude (AT)				0.921	0.700
AT1	0.794				
AT2	0.852	0.057	19.703 ***		
AT3	0.838	0.054	19.253 ***		
AT4	0.824	0.055	18.815 ***		
AT5	0.872	0.052	20.357 ***		
Behavioral Intention (BI)				0.939	0.756
BI1	0.875				
BI2	0.889	0.045	25.657 ***		
BI3	0.879	0.043	25.058 ***		
BI4	0.860	0.044	23.953 ***		
BI5	0.844	0.045	23.091 ***		

Remark: CR = Composite Reliability, AVE = average variance extracted
*** = Significant at the 0.05 level (p<0.05)

Table 4: Discriminant Validity

	BI	NI	IF	PBC	AT
BI	**0.869**				
NI	0.696	**0.716**			
IF	0.580	0.603	**0.711**		
PBC	0.030	0.001	0.064	**0.738**	
AT	0.792	0.692	0.553	0.021	**0.837**

Remark: The diagonally listed values in bold are the AVE square root of the variables

Table 5: Goodness of Fit

Goodness-of-fit Indices	Criterion	Result of this study
CMIN	< 3.00 (Hair *et al.*, 2006)	2.040
GFI	> 0.90 (Hair *et al.*, 2006)	0.920
AGFI	> 0.80 (Hu and Bentler, 1999)	0.899
NFI	> 0.90 (Bentler and Bonnet, 1980)	0.934
CFI	> 0.95 (Hair *et al.*, 2006)	0.965
TLI	> 0.90 (Hu and Bentler, 1999; Marsh, Hau and Wen, 2004)	0.960

RMSEA	< 0.08 (Browne and Cudeck, 1993)	0.051
RMR	< 0.05 (Hair *et al.*, 2006)	0.036

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, NFI = normalized fit index, TLI = Tucker-Lewis index, CFI = comparative fit index, RMSEA = root mean square error of approximation, and RMR = root mean square residual

Structural Equation Model

Structural equation model or SEM is a form of statistical model recommended by Kline (2005) to test if the conceptual framework is fit for hypothesis testing or not. From the table 5 above, the researcher has already seen the minimum requirement for a fit model which was needed for CFA, now the same requirement can be used for SEM for hypothesis testing. For further hypothesis testing, the researcher needed to look at the goodness of fit again to see if they meet the requirement and the results were as followed: CUMIN/DF=2.003, GFI=0.922, AGFI=0.901, NFI=0.925, CFI=0.966, TLI 0.961, RMSEA=0.05, RMR=0.035.

Research Hypothesis Testing

After the results from SEM has met the minimum requirement, the researcher evaluated the regression weights for path significant of each relationship between the variable in the conceptual framework and the variance of R^2. From a quick look from table 6 the researcher can only see 2 of the hypotheses that are supported by the data with p-value less than 0.05, whereas the other hypotheses are not supported.

Table 6: Results of Structural Model and Hypothesis Testing

Hypothesized Relationship	Standardized Path Coefficients (β)	T-Value/p-value	Test Result
H_1: Normative influence => Attitude	0.772	8.334, ***	Supported
H_2: Normative influence => Behavioral intention	0.078	1.144, 0.253	Not supported
H_3: Informational influence => Attitude	0.060	0.829, 0.407	Not supported
H_4: Informational influence => Behavioral intention	0.084	1.876, 0.061	Not supported
H_5: Perceived behavioral control => Attitude	0.010	0.251, 0.802	Not supported
H_6: perceived behavioral control => Behavioral intention	0.013	0.487, 0.626	Not supported
H_7: Attitude => Behavioral intention	0.826	12.632, ***	Supported

*Remark: *** represents p-value ≤ 0.05*

The summary of all the hypothesis testing are as followed.

H_1 (Normative influence => Attitude): Standardized path coefficient is 0.772, t-value is 8.334 and p-value is *** which mean it is less than 0.05. And since p-value is less than 0.05, this hypothesis not rejected. Hence, the researcher can say normative influence had significant impact on attitude of the consumer. Since the coefficient is positive normative influence have a positive impact of attitude. This set of finding is aligned with previous studies of Lascu and Zinkhan (1999) and Noor, Yap, Liew and Rajah (2014). This means in a group if some of the people take

dietary supplement this will create a positive attitude towards dietary supplement for an individual of same group.

H_2 (Normative influence => Behavioral intention): Standardized path coefficient between them is 0.078, t-value is 1.144 p-value is 0.253. Since the p-value is more than 0.05 this hypothesis is rejected. The study can depict normative influence is not significant and do not affect the behavioral intention of consumer. This set of finding contradicts with previous research studies of Childers and Rao (1992), Chung, Stoel, Xu and Ren (2010) and Kuan *et al.* (2014).

H_3 (Informational influence => Attitude): Standardized path coefficient is 0.060, t-value is 0.829 and p-value is 0.407. Since the p-value is more than 0.05 the hypothesis is rejected. The researcher can say that the informational influence is not significant and does not affect attitude of the consumer. This outcome does not reflect past research of Crano (2000), and Samu and Wymer (2 014).

H_4 (Informational influence => Behavioral intention): Standardized path coefficient between them is 0.084, t-value is 1.876 and p value is 0.061. Since the p-value is more than 0.05 the hypothesis is rejected. The study can depict that informational influence was not significant and had no effect on behavioral intention of the consumer. This result is also aligned with research of Chung *et al.* (2010), and Goudge, Good, Hyman and Aguirre (2017).

H_5 (Perceived behavioral control => Attitude): Standardized path coefficient is 0.010, t-value is 0.251 and p-value is 0.802. Since p-value is more than 0.05 this hypothesis is rejected. The study can depict perceived behavioral control as not significant and does not affect attitude of the customer. This set of findings contradicts previous study of Noor *et al.* (2014).

H_6 (perceived behavioral control => Behavioral intention): Standardized path coefficient between them is 0.013, t-value is 0.487 and p-value is 0.626. Since the p value is more than 0.05 this hypothesis is rejected. We can say perceived behavioral control is not significant and does not affect behavioral intention of the consumer. This outcome contradicts with previous study of Povey, Conner, Sparks, James and Shepherd (2000), Hagger and Chatzisarantis (2005), and Murugesan and Jayavelu (2015).

H_7 (Attitude => Behavioral intention): standardized path coefficient is 0.826, t-value is 12.632 and p-value is *** which is less than 0.05. And since the p-value is less than 0.05 this hypothesis is not rejected. Hence, the researcher can depict that customer attitude has significant effect on the consumer's behavioral intention. Since coefficient is positive attitude has a positive influence on behavioral intention. This mean the attitudes that an individual hold about dietary supplement greatly influences their intention to consume. If their attitude is positive about supplements, then they will consume dietary supplement and vice versa. The result reflects previous researches of Armitage and Conner (2001), Dodoiu (2015), and Chen and Lin (2018).

Total, Direct and Indirect effects in Structural equation models

After hypothesis testing, again use SPSS AMOS Version 26 program to conduct a path analysis in order to see the direct, indirect and total effect of one variable with another. Total effect is the sum of direct and indirect effect. Direct effect is when an independent variable influences another variable without any mediating variable. As for Indirect effect is when one independent variable effect a dependent variable but only after influencing the mediating variable first (Asher, 1983). The table

7 below shows the summary of the effects and the SEM from AMOS is shown.

Table 7: Standardized Direct, Indirect and Total effects

Variables	AT				BI			
	Direct Effect	Indirect Effect	Total Effect	R^2	Direct Effect	Indirect Effect	Total Effect	R^2
NI	0.772*	-	0.772*	0.664	0.078	0.637	0.715	0.893
IF	0.060	-	0.060		0.084	0.049	0.113	
PBC	0.010	-	0.010		0.013	0.008	0.021	
AT	-	-	-		0.826*	-	0.826*	

Remark: DE = Direct Effect, IE = Indirect Effect, TE = Total Effect (DE+IE), * = p < 0.05

The researcher had 2 independent variables so let's look at how each independent variable is affected by the dependent variable and is the affect significant or not which were found out from hypothesis testing:

Attitude: Perceived behavioral control was the most insignificant in influencing Attitude of a consumer with a total/direct effect of only 0.010. Informational influence is also insignificant but lesser if compared to PBC with a total/direct influence of 0.060. Normative influence however has a significant influence with a total/direct of effect of about 0.772.

Behavioral intention: Perceived behavioral control was again the most insignificant in influencing Behavioral intention with a total/direct effect of 0.013. Followed by Normative influence with insignificant total/direct effect of 0.078. And lastly comes Informational influence which had an insignificant total/direct effect of 0.084. Only variable with significant effect was Attitude with a significant indirect effect from normative influence of about 0.637 and total effect was 0.826. There were other indirect effects also which were Informational influence and PBC, but they were insignificant with 0.049 and 0.008 respectively.

Conclusion

The researcher conducted the study with an objective to determine the influence of three social cognitive factor on behavioral intention to consume dietary supplements in Bangkok, Thailand. The researcher used TPB as a framework with a small change as we made consumer's attitude as a mediating variable instead of grouping it with the other 3 variables. For this research, the researcher was able to collect data from 402 respondents who were living in Bangkok, Thailand and are health conscious. The data were collected through CFA testing to evaluate the validity and reliability of the conceptual model. After the model was valid and reliable, the researcher checked the goodness of fit model through structural equation modelling (SEM) for model fitness and to see if the influencing variable are significant or not.

From all the variables from the study, the researcher excluded 2 variables which had no direct/indirect influence on attitude and behavioral intention of consumer, which were

Informational influence and perceived behavioral control. However, in existing literature, Perceived Behavioral control did have a great influence on attitude and behavioral intention, whereas informative influence influenced behavioral intention but no effect towards attitude. Normative influence might not have direct significant influence on the behavioral intention but the direct influence on attitude of a consumer is significant. In existing literature, the result is different as normative influence did affect behavioral intention and attitude. Correspondingly, att itude of a consumer has significant direct impact on behavioral intention. And in the existing literature attitude can impact the behavioral intention of a consumer. With even though normative influence did not influence behavioral intention it does have an indirect relationship with behavioral intention, as normative influence will shape a person's attitude about dietary supplement which will result in person consuming dietary supplement depending if the normative influence is positive or negative.

Recommendation

The result of this study finds that the only variable which directly influences Behavior intention to consume dietary supplement is the attitude of a consumer about dietary supplements. In addition, one of the social factors which is the normative influence has some importance for a consumer taking dietary supplement. As normative influence significantly impact attitude, this mean a positive attitude toward dietary supplement is mainly formed through positive normative influence and vice versa. As for the producer or retailer of such dietary supplements, the researcher suggested to focus on marketing efforts to change the attitude of people towards dietary supplements. To shape a positive attitude, the marketers need to expose the general population to some positive normative influence. This has been done by many international dietary supplement companies by engaging people with many followers or also known as "Social media influencer" as their brand ambassadors. Almost everyone from all age group now days are in social media in some way or the other and they do follow people who inspire them or motivate them with their media content. So, by making these influencer as the face/ faces of the brand and giving them free products to review or promote them in social media platform like YouTube, Instagram or twitter, people who follow them or watch their content will be exposed to normative influence which will lead development of a positive attitude toward dietary supplement. This will increase a person's intention to consume dietary supplements.

Limitations

It is expected that there are certain limitations to this study which can be adapted for further research on this topic. This study only focuses on residents of Bangkok, Thailand and people who are health conscious. For further studies and broader understanding, researcher needs to investigate other geographic region to get a better understanding. Also, this study only focuses on health-conscious people, so the focus is on people who already take dietary supplements. Further studies need to take place to target new customer group like athlete to gain insight on what might influence them into buying dietary supplements with different variables. In further studies other aspects like price or even health motivation should be considered to gain more insight about why people buy and consume dietary supplements.

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