Theory of Reasoned Action and Organic Food Buying in India

Dr. Pankaj Agarwal

Professor, Deptt.of Management
RakshpalBahadur Management Institute
Bareilly (UP), India
Email: pankajmbasrms@gmail.com

Abstract: *The purpose of this paper is to find out a relationship between attitude towards organic food, subjective norms and buying intention of organic food. This study explores the impact of attitude and subjective norms on buying intentions and the impact of subjective norms on attitude towards organic food. Data were collected with the help of a structured questionnaire; questionnaires were e-mailed to the respondents from different major cities of India, covering North, West and South India. Structural equation modeling was employed to test the proposed model fit. This research shows that attitude towards organic food and subjective norms have a positive impact on the buying intention of organic food. Subjective norms have a positive impact on attitude towards buying organic food.Components of the theory of reasoned action, attitude and subjective norms are being used to find out their impact on buying intention of organic food. It is the first of its kind of study in the Indian environment as per the buying of organic food is concerned. No good study previously applied the theory of reasoned action to buying intention of organic food in India*

Keywords: *Organic food, Structural equation modeling, Consumer behaviour, India, Subjective norms, Buying intention, Attitude*

I. Introduction

Consumers are now being aware of the harmful effects of chemicals present in food. People are willing to consume food which is not harmful to their health; they find organic food as an available alternative. Several studies have been conducted to find out what motivates people to buy and consume organic food, but most of such studies are in the developed world market. Hardly a few good research studies have been conducted in the developing world market, like India. The studies conducted in the developed world market found that the main motivating factors to buy organic food include environmental concern, health concern, product quality, and subjective norms.

'Organic' refers to products that are produced without the use of fertilizers or pesticides (Hutchins &Greenhalgh, 1997). Organic food is produced without using artificial chemical products, so that organically produce is good for human health. Organic food is good not only for human health but it does not spoil the environment. So, organic food brings benefits both to the economy and society. It has been found that people are interested in buying organic food as it is found to be environment-friendly along with being wholesome to human health.

The decision of a consumer to purchase organic food will depend on many factors like the attitude of consumers, one of the important factors. Attitude may be described as a learned predisposition to behave in a specific way, expressed in liking and disliking. The attitudes towards the product are formed not only by health needs, convenience, safety, environmental motives, etc. but also by the product perception. Ajzen and Fishbein (1980), in theory of reasoned action propounded by them, and Ajzen (1991), in the theory of planned behaviour, found that a person's behaviour is determined by intentionto

perform behaviour. As per these studies,behavior of a person is determined by the intention of this person. The intention of a consumer is determined by three factors like the first factor, attitudes,second factor, subjective norms considered as,beliefs about what others will think about behavior and, the third factor, perceivedbehavioural control. The relationship among these variables was found as, the more favourable the attitude and the subjective norm, the stronger is the person's intention to buy or behave in a particular way.

Apart from these two studies, a large number of research studies conducted also found that the purchase decisions of a consumer for organic products are greatly influenced by the attitude of a consumer towards health. The more health-conscious a person is, the more are chances that this person will buy organic food products. (Durham & Andrade, 2005; Millock, Wier,& Andersen, 2004;Torjusen, Lieblein, Wandel, & Francis, 2001).

II. Literature review and hypothesis development

Theory of reasoned action

The theory of reasoned action was developed by Fishbein and Ajzen (1975), as per the theory of reasoned action one of the most important factors for determining human behaviour is the intention of human. This relationship between human intention and behaviour is equally applicable to consumer buying behaviour. This theory has main components as attitudes towards behaviour and subjective norms. Ajzen (1985) defined intention is the willingness to take part in a behaviour.Ali, Ismail, Alam, Makhbul, and Omar (2018) in their research used the theory of planned behaviour to find the impact of attitude, subjective norm and perceived behavioural control of buying of halal food products.

Attitude

The theory of reasoned action found that an important determinant of behavioural intention is the attitude of the consumer (Ajzen&Fishbein, 2005; Fishbein&Ajzen, 1975). Jung (1971) defined attitude as a psychological construct. Attitude contains cognitive and affective components, where cognitive is related to thinking and affective is related to feeling part of the human (Ajzen, 2001; Ajzen& Driver, 1991). Tarkiainen and Sundqvist (2005) in their research found that there is a significant relationship between attitude towards buying organic food and the intention to buy organic food. Ajzen (1991) studied the relationship between attitude and intention to buy; he found favourable attitude will make a strong intention to buy a product or to behave in a particular way.Alwitt and Pitts (1996) found that favourable environmental attitudes have a positive impact on purchase intention of green products.Finding by Alwitt and Pitts (1996) is not supported with finding byDarsonoet al.,(2018). Darsonoet al., (2018) found the attitude of a consumer is considerably developed by health concern, product quality and knowledge; however environmental concern has not positive impact on attitude. Attitude has a direct positive impact on purchase intention of organic products.

Honkanen, Verplanken, and Olsen (2006) studied that environmental and animal concerns have a great impact on attitude towards buying organic food. Health and environmental benefits are important in framing attitude and buying intention for organic food (GraciaRoyo,& de-Magistris, 2007). Health factor has been the main driving force in buying organic food in Thailand (Roitner-Schobesberger, Darnhofer, Somsook, &Vogl, 2008).Irianto (2015) researched that health consciousness and environmental consciousness determine an individual's positive attitude to buy organic food. Lian (2017) investigated the consumer motivational factors influencing attitude to purchase of organic food in Malaysia. Consumer motivational factors involved past experience, health consciousness, and personal values were examined in this study.EtiYcli, Anyl, and Kylyc(2019) developed a measurement scale for organic food consumption. The scale developed by this research has norms and positive moral attitudes as two constructs out of six constructs.

Following hypothesis was developed
H_1: Attitude has a positive effect on organic food buying intention.

Subjective norms

Another important component of the theory of reasoned action is subjective norms. Ajzen (1991) mentioned subjective norm as pressure from society for taking a particular action or not taking a particular action.Bearden, Netemeyer, and Teel, J. E. (1989) found in research that the influence of related people is an important factor in the determination ofbehaviour. TaylorandTodd (1995) studied that if a consumer has social norms which favours a particular behaviour, the consumer is more likely to take this action. Research studiesin the past have found that attitude has a considerable impact on subjective norms. Tarkiainen and Sundqvist(2005) found that there is a significant relationship between subjective norms and attitude which has an impact on buying intention.

Applied to organic food consumption, Thogersen (2009) found a significant positive relationship between subjective norms and consumers' intention to purchase organic food.Basha, and Lal (2019) also found subjective norms have a positive impact on consumer buying intentions of organic food.Gotschi, Vogel, Lindenthal, and Larcher (2009) found that subjective norm related to the family has a significant relationship with attitude and buying of organic products. Vermeirand Verbeke (2006) in their research found, if a consumer has social pressure from peers, he will have the intention to buy the product, despite having negative personal attitudes. As society is having trends of eating healthy food, such trends have a positive impact on the decisionregarding buying organic food (Hill &Lynchehaun, 2002). Al-Swidi, Mohammed RafiulHuque, HaroonHafeez, and NoorMohdShariff (2014) found that subjective norms significantly influenceattitude and buying intentions.Various researches believe that if consumers find that people important to them have a positive attitude regarding organic food they will like to buy more organic food.Ling and Ang (2018) studied factors influencing the purchase intention of lecturers for organic food, the theory of reasoned action was applied, and the study found that social influence has a positive impact on organic food buying intention.Nam, Nga, and Huan(2019) studied the impact of attitude and subjective norms on buying intentions in normal and scare food situations. Attitude influences buying intentions in both situations but subjective norms do not influence directly in normal conditions.

So the following hypotheses were developed
H_2: Subjective norms have a positive effect on attitude toward buying organic food.
H_3: Subjective norms have a positive effect on organic food buying intention.

III. Aims and objectives of the study:

This paper aims to find out a relationship between attitude towards organic food, subjective norms and buying intention of organic food. This study explores the impact of attitude and subjective norms on buying intentions and the impact of subjective norms on attitude towards organic food.

IV. Research methodology

This section mentions the research methodology used in this research paper. It includes a description of constructs and data analysis techniques. The sample size is 110, respondents are from different cities of India, metro cities of north, west, east and south India were covered. About 150 questionnaires were emailed, out of which 120 respondents replied; after review incomplete questionnaires were not included, so final 110 questionnaires were used for research data analysis. Respondents belonged to a varied set of demographics in terms of age, gender, income, education, and occupation. Respondents were chosen by using convenient and judgmental sampling.

Measurement

To measure attitude, subjective norms and buying Intention, a structured questionnaire consisting of 16 items, was used and modified based on previous studies (Ajzen&Fishbein, 1980; Grunert&Juhl, 1995;Lockie, Lyons, Lawrence, & Grice, 2004;Misra, Huang, &Ott, 1991; Zotos, Ziamou, &Tsakiridou,1999). A five-point Likert scale was used to measure all the items.

Statistical analysis techniques

The hypothesized model of this study was tested using the structural equation modeling (SEM) approach supported by AMOS 20 employing the maximum likelihood estimation method.Before using Structural equation modeling,Confirmatory

Factor Analysis was also used which meansthe measurement model was tested before examining the structural model.

V. Analysis and Results

Demographic characteristics of the respondents are presented in Table 1, which shows diversity in terms of gender, age, monthly family income, occupation and education. This sample has 64% of male respondents and 46% of female respondents, so this sample is equally divided into male and female respondents.Age of respondents was from 20 to 60 years. Fifty percent of respondents were between 30 to 40 years old. In total, majority of the respondents belonged to lower to middle income social class. Education level of the respondents ranged from graduate to post graduate level.

Table 1: Characteristics of Sample

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Male**	64	58.2	58.2	58.2
	Female	46	41.8	41.8	100
	Total	110	100	100	
Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**20 to 30 years**	32	29.1	29.1	29.1
	30 to 40 years	50	45.5	45.5	74.5
	40 to 50 years	24	21.8	21.8	96.4
	50 to 60 years	2	1.8	1.8	98.2
	60 years and above	2	1.8	1.8	100
	Total	110	100	100	
Monthly Family Income (Rs)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**25000 to 35000**	34	30.9	30.9	30.9
	35000 to 45000	15	13.6	13.6	44.5
	45000 to 55000	14	12.7	12.7	57.3
	55000 to 65000	10	9.1	9.1	66.4
	65000 and above	37	33.6	33.6	100
	Total	110	100	100	
Occupation					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Student**	10	9.1	9.1	9.1
	Government service	8	7.3	7.3	16.4
	Private Service	79	71.8	71.8	88.2
	Self employed	11	10	10	98.2
	Housewife	2	1.8	1.8	100
	Total	110	100	100	
Education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Graduation**	2	1.8	1.8	1.8
	Postgraduate	108	98.2	98.2	100
	Total	110	100	100	

The table 2, given below shows the constructs, items in the constructs and Cronbach Alpha of that construct. First construct is attitude towards buying organic food having eight items and Cronbach alpha is 0.786. Second construct is subjective norms with four items and its Cronbach alpha is 0.659. Third construct is intention to buy organic food with four items and its Cronbach alpha score is 0.767. These details are shown in the table given below.

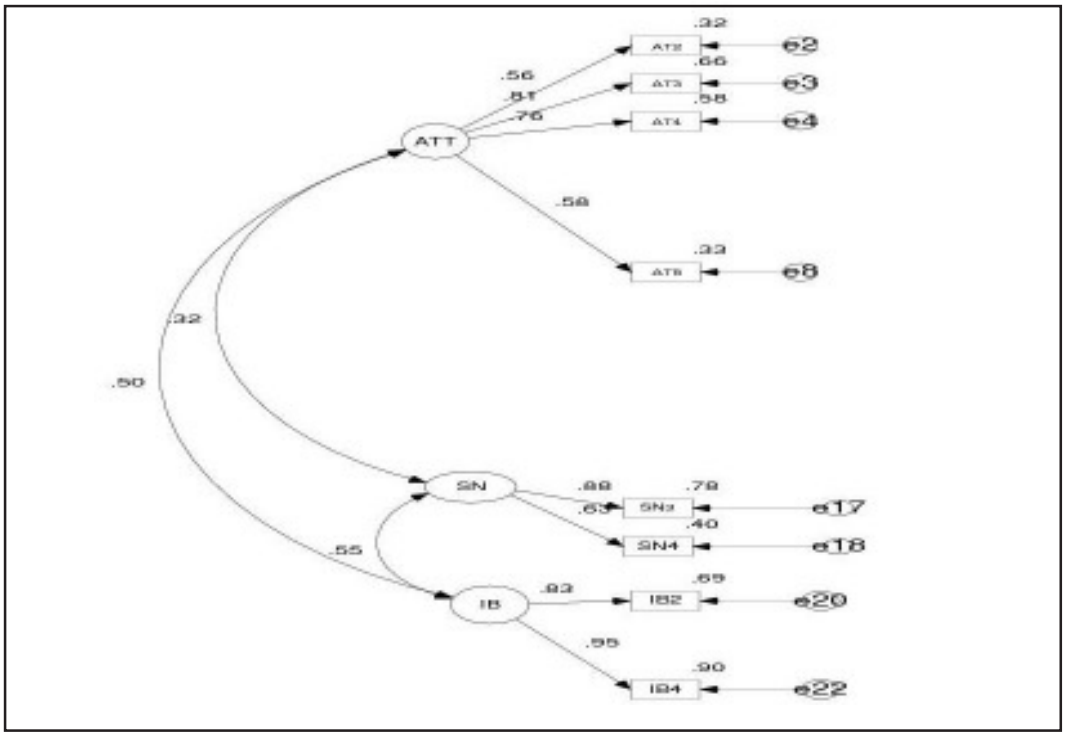
Table 2: Measurement of constructs

Construct	Items	Cronbach Alpha
Attitude toward buying organic food	I prefer organic food because it is processed without any chemicals	0.786
	I prefer organic food because it tastes better than non-organic food	
	I prefer organic food because it is more nutritious than conventional non-organic food	
	I prefer organic food as it causes less diseases than conventional food	
	I prefer organic food because it is environment friendly	
	I prefer organic food as no preservatives are used to enhance its shelf life	
	I believe that price of organic food is quite justified	
	It is exciting for me to buy organic food	
Subjective norms	The trend of buying organic food among people around me is increasing	0.659
	People around me generally believe that it is better for health to use organic food	
	My close friends and family members would appreciate if I buy organic food	
	I would get all the required support (money, time,information related) from friends and family to	
Intention to buy organic food	I would look for specialty shops to buy organic food	0.767
	I am willing to buy organic food in future	
	I am willing to buy organic food on regular basis	
	I would also recommend others to buy organic food	

The measurement model results

The goodness of fit of the measurement model was established by confirming the content validity and construct validity. To confirm the content validity, factor loadings can be used to ensure that all the items designed to measure a construct should load highly and significantly on the constructs they were designed to measure (Hair, Black, Babin, Anderson, &Tatham, 2010). Figure1 shows that all the items have significant loading on the constructs,they are related,and so the content validity of the measurement model is established. The convergent validity measures and explains the extent to which a set of indicators converges in measuring the concept of concern. (Hair et al., 2010). The convergent validity can be confirmed using the item's reliability, internal consistency, composite reliability and the average variance extracted.

Figure 1: Measurement model and CFA



According to the CFA results reported, the factor loadings for all items were significant and were more than the acceptable value of .05(Hairet al.,2010;Hulland, 1999; Truong & McColl, 2011). The internal reliability of the scale items was analysedby using Cronbach's Alpha values, in our research these values were found as mentioned for attitude toward buying organicfood valueis 0.768, for subjective norms value if 0.659, for intention to buy organic food value is 0.767. These values are above acceptable value 0.70 for Cronbach alpha(Nunnally, 1978). Its value is also dependent on the number of items a construct has, as there are few items in the subjective norm construct, this value is also acceptable.

Average Variance Extracted is used to find out the discriminant validity. In this research study, the value of AVE ranged from 0.526 to 0.795, which is higher than 0.5. If AVE is less than 0.5, but the value of composite reliability is higher than 0.6, the value of AVE less than 0.5 is also acceptable(Fornell&Larcker, 1981).

Table 3: Reliability and validity calculations

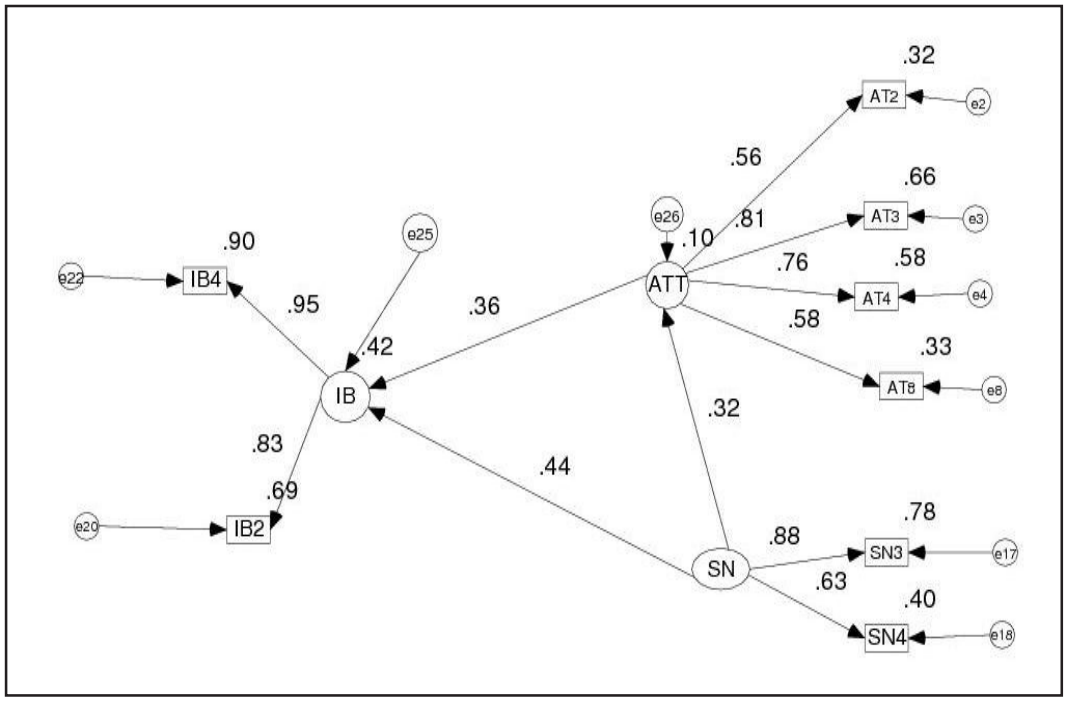
	CR	AVE	MSV	MaxR(H)	SN	ATT	IB
SN	0.736	0.589	0.304	0.805	**0.768**		
ATT	0.766	0.526	0.248	0.794			
IB	0.885	0.795	0.304	0.917	0.551	0.498	

Based on the significance of items in measuring their constructs, all the latent constructs have composite reliability of at least 0.70 and AVE of at least 0.50, it can be concluded that the measurement model has an adequate convergent validity level. The above-given table no. 3 has been developed by using statistics package tools provided by Dr. James Gaskin. This table has calculated values of CR,AVE, and MSV and it concluded that there is no validity issue in our data set. So, we can say that there is no reliability and validity issue including discriminant validity.

Goodness of fit indicators and structural model results

Having confirmed the validity and reliability of the measurement model, the next stepwas to test the hypotheses by running the structural equationmodel. Figure 2 shows the causallinkages and fit statistics for the structural model.

Figure 2: Structural model results



The overall goodness of fit of themodel was acceptable when compared to the threshold values suggested in the SEMliterature. The normed chi-squarewas 1.517 which is less than 3.0; the AGFI was 0.882, higher thanthe threshold value of 0.80; the NNFI (or TLI) was 0.954and CFI was 0.972, higherthan the 0.95; and RMSEA was 0.069, which is lower than 0.08. Hence, the model has agood fit considering the threshold values suggested by Bagozzi and Yi (1988).

The effect of attitude and subjective norms on buying intention of the organic food was significant with path coefficient 0.36 and 0.44 respectively. The level of significance taken for this analysis was 0.001. The results also indicated that subjectivenorms have a positive significant impact on the attitude toward buying organic food with path coefficient 0.32; the level of significance used was 0.001. Hencehypotheses developed in this research paper by literature review, H1, H2, and H3 were supported by research analysis done inthe study.

Table 4: Hypothesis Testing Results

S.N	Hypothesis	Path coefficient	p-value	Decision
1.	H_1: Attitude has a positive effect on organic food buying intention.	0.36	0.003	Supported
2.	H_2: Subjective norms have a positive effect on the organic food buying intention.	0.44	0.002	Supported
3.	H_3 : Subjective norms have a positive effect on Attitude towards buying intention of organic food	0.32	0.020	Supported

VI. Discussion and Conclusion

This research paper explored the impact of attitude and subjective norms on buying intention of organic food in India. Attitude and subjective norms components have been a vital part of the theory of reasoned action. Some of the previous studies have used components of theory of planned behavior like, attitude, subjective norms and perceivedbehavioral control on buying intention of organic food, but only a few studies used components of theory of reasoned action, Such a study in the Indian environment is new to work out.

The study found that both attitudes towards organic food and subjective norms have a significant impact on the buying intention of organic food. The impact of subjective norms is more on buying intention than the impact of attitude towards buying organic food in India. Subjective norms have a significant impact on attitudes toward buying intentions.

Subjective norms have also been found influencing attitude towards organic food. This seems quite reasonable for India where people take the advice of family and friends, colleagues also. Word of mouth communication has an important role to play in the Indian environment. This study shows that attitude and subjective norms are important components for the buying intention of organic food. In the Indian environment, subjective norms are more important than attitude, so the organic food industry and marketing professionals should give due importance to subjective norms. Such advertisements should be developed in which celebrities and well-known persons are using and getting benefits from the consumption of organic food.

References

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

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. *In Action control. Springer*, Berlin, Heidelberg, 11-39

Ajzen, I. (2001). Nature and operation of attitudes. *Annual review of psychology*, *52*(1), 27-58.

Ajzen, I., & Driver, B. L. (1991).Prediction of leisure participation from behavioral, normative, and control beliefs: An application of the theory of planned behavior. *Leisure Sciences*, *13(3),*185-204.

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

Ajzen, I., &Fishbein, M. (2005).The influence of attitudes on behavior. *The handbook of attitudes*, *173(221)*, 31.

Ali, M. H., Ismail, A., Alam, S. S., Makhbul, Z. M., & Omar, N. A. (2018).Exploring the theory of planned behaviour (TPB) in relation to a halal food scandal: the Malaysia Cadbury chocolate case. *International Food Research Journal*, *25*, S79-S86.

Al-Swidi, A., Mohammed RafiulHuque, S., HaroonHafeez, M., & Noor MohdShariff, M. (2014).The role of subjective norms in theory of planned behavior in the context of organic food consumption. *British Food Journal*,*116(10),* 1561-1580.

Alwitt, L. F., & Pitts, R. E. (1996).Predicting purchase intentions for an environmentally sensitive product.*Journal of consumer psychology*,*5(1)*, 49-64.

Bagozzi, R. P., & Yi, Y. (1988).On the evaluation of structural equation model.*Journal ofAcademy of Marketing Science*, *16(1)*, 74-94.

Basha, M. B., & Lal, D. (2019). Indian consumers' attitudes towards purchasing organically produced foods: An empirical study. *Journal of cleaner production*, *215*, 99-111.

Bearden, W.O., Netemeyer, R. G., & Teel, J. E. (1989).Measurement of consumer susceptibility to interpersonal influence.*Journal of Consumer Research*, *15(4)*, 473-481.

Darsono, N., Yahya, A., Muzammil, A., Musnadi, S., Anwar, C., &Irawati, W. (2018).Consumer Actual Purchase Behavior for Organic Products In Aceh, Indonesia. In *1st Aceh Global Conference (AGC 2018)*.Atlantis Press.

Durham, C. A., & Andrade, D. (2005). *Health vs. environmental motivation in organic preferences and purchases* (No. 378-2016-21257).

EtiÝçli, G., Anýl, N. K., &Kýlýç, B. (2019). Organic food consumption scale (OFC): development and validation. *Pacific Business Review International, 11(9),* 16 – 30.

Fishbein, M., &Ajzen, I. (1975).*Belief, Attitude, Intention, and Behavior: An Introduction toTheory and Research*.Addison-Wesley, Reading, MA.

Fornell, C., &Larcker, D. F. (1981).Evaluating structural equation models with unobservable variables and measurement error: algebra and statistics.*Journal of Marketing Research, 18 (1),* 39-50.

Gotschi, E., Vogel, S., Lindenthal, T., &Larcher, M. (2009). The role of knowledge, social norms, and attitudes toward organic products and shopping behavior: Survey results from high school students in Vienna. *The Journal of Environmental Education*, *41(2),*88-100.

GraciaRoyo, A., & de-Magistris, T. (2007).Organic food product purchase behaviour: a pilot study for urban consumers in the South of Italy. *Spanish Journal of Agricultural Research*, *5(4),*439-451.

Grunert, S. C., &Juhl, H. J. (1995).Values, environmental attitudes, and buying of organicfoods. *Journal of Economic Psychology,16 (1),*39-62.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R. E., &Tatham, R .L. (2010).*Multivariate DataAnalysis*.Prentice-Hall, Upper Saddle River, NJ.

Hill, H., &Lynchehaun, F. (2002).Organic milk: attitudes and consumption patterns. *British Food Journal*, *104(7)*, 526-542.

Honkanen, P., Verplanken, B., & Olsen, S. O. (2006).Ethical values and motives driving organic food choice.*Journal of Consumer Behaviour*, *5(5),*420-430.

Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, *20*(2), 195-204.

Hutchins, R.K., &Greenhalgh, L. A. (1997).Organic confusion: sustaining competitive advantage. *British Food Journal*, *99(9)*, 336-338.

Irianto, H. (2015). Consumers' attitude and intention towards organic food purchase: An extension of theory of planned behavior in gender perspective. *International Journal of Management, Economics and Social Sciences*, *4*(1), 17-31.

Jung, C. G. (1971).*Psychological Types, Collected Works*. Vol 6, Princeton University Press,Princeton, NJ.

Lian, S. B. (2017). What motivates consumers to purchase organic food in Malaysia?. *Asian Social Science*, *13*(9), 100-109.

Ling, S. S., &Ang, Y. C.(2018). Factor Influencing Intention to Purchase Organic Foods AmongAcademic Staff in Sarawak. *South East Asia Journal of Contemporary Business, Economics, Law*, *17(2),* 21-27

Lockie, S., Lyons, K., Lawrence, G., & Grice, J. (2004).Choosing organics: a path analysis offactors underlying the selection of organic food among Australian consumers.*Appetite*,*43(2)*, 135-146.

Millock, K., Wier M. & Andersen L.M.(2004). Consumer's demand for organic foods-attitudes, value and purchasing behavior. *Selected paper for presentation at the XIII Annual Conference of European Association of Environmental and Resource Economics*.Budapest, Hungary, 25-28 June.

Misra, S., Huang, C. L., &Ott, S. (1991). Georgia consumers' preference for organically grownfresh produce.*Journal of Agribusiness*, *9(2)*, 53-65.

Nam, N. K., Nga, N. T. H., &Huan, N.Q. (2019). The Consumers' intention to purchase food: The role of perceived risk. *Academy of Strategic Management Journal*, *18(1),* 1-12.

Nunnally, J. C. (1978). An overview of psychological measurement. In *Clinical diagnosis of mental disorders* (pp. 97-146). Springer, Boston, MA.

Roitner-Schobesberger, B., Darnhofer, I., Somsook, S., &Vogl, C. R. (2008).Consumer perceptions of organic foods in Bangkok, Thailand. *Food policy*, *33*(2), 112-121.

Tarkiainen, A., &Sundqvist, S. (2005). Subjective norms, attitudes, and intentions of Finnishconsumers in buying organic food.*British Food Journal*, *107(10/11)*, 808-822.

Taylor, S., & Todd, P. A. (1995).Understanding information technology usage: A test of competing models. *Information Systems Research*, *6 (2),* 144-176.

Thogersen, J. (2009). The motivational roots of norms for environmentally responsibleBehavior.*Basic and Applied Social Psychology*, *31(4),*348-362.

Torjusen, H., Lieblein G., Wandel M., &Francis C.A.(2001).Food system orientation and quality perception among consumers and producers of organic food in Hedmark County. Norway. *Food Quality and Preference*, *12(3)*, 207-216.

Truong, Y., &McColl, R. (2011). Intrinsic motivations, self-esteem, and luxury goods consumption. *Journal of Retailing and Consumer Services*, *18*(6), 555-561.