

Factors Influencing Purchase Intention for Organic Products

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ABSTRACT: The demand for organic products is growing in response to an increasing concern for environmental concern and safety issues, therefore, research on factors influencing purchase intention for organic products are important to marketing practice and academia. The objective of this study was to examine the relationship among perceived value, attitude, purchase intention for organic products. Furthermore, this study investigated the moderating effect of organic labels on the relationship between perceived value and attitude toward organic products and between attitude and purchase intention for organic products. This study utilized online survey via convenience sampling method and collected 271 valid responses from China and Taiwan. The results showed that quality, price, emotional, and social dimensions influence positively on perceived value of organic products, which increases attitude toward organic products, thereby enhance purchase intention for organic products. Additionally, the result found that organic labels have a positive moderating effect on the relationship between attitude and purchase intention for organic products while there is no significant moderating effect of organic labels in the relationship between perceived value and attitude toward organic products. The findings provided implications and suggestions for marketing practice.

Keywords: organic products, perceived value, attitude, purchase intention, organic labels

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I. INTRODUCTION

There is a growing recognition that households' consumption is a major contribution to the problem of environmental degradation (Limnios, Schilizzi, Burton, Ong, & Hynes, 2016; Thøgersen, de Barcellos, Perin, & Zhou, 2015), thus, the rise in environmental concern has led to increasing the size and the scope of environmentally friendly consumption and marketing (Chan, 2001).

Over the past decade, the global organic food industry grew gradually and became an important sector within a considerably steady and mature food market (Baker, Thompson, Engelken, & Huntley, 2004). Some countries demonstrate annual average growth rates of the organic food industry of up to 30% (Krystallis & Chrysoschoidis, 2005). The global organic food sales amounted from 15.2 billion in 1999 to 62.9 billion in 2011 (Daunfeldt, & Rudholm, 2014). The U.S. plays an important role in the global organic food market. The organic food sales of the U.S. increased from 3.6 billion in 1997 to 43.3 billion in 2015 and still ranked top in the organic food industry (Ag Professional, 2013). The food organic sector gained a substantial market share in the U.S. organic market; in contrast, the non-food organic sector accounted for only one-ninth of

the U.S. organic market but was prospected well in the future (Ag Professional, 2013).

Earlier research regarding environmental concern mainly focuses on the developed economies, i.e., U.S. and Europe (ex., de Ferran & Grunert, 2007; Honkanen, Verplanken, & Olsen, 2006; Thøgersen, 1999, 2011), so far, research on conscious consumer behavior of organic products on emerging markets is still little (Chan, 2011; Khare, 2015; Tang, Wang, & Lu, 2014, Thøgersen et al., 2015). Earlier research (Chan, 1999) suggested that Chinese consumers' ecological concerns are rather low though they expressed strong emotional attachment to ecological issues. Recent research showed that (ex., Tang et al., 2014) environmental concern positively influenced Chinese consumers' purchase intention for low-displacement vehicles. Due to the importance of emerging markets' huge population and increasing income, using emerging markets to understand a broader understanding of conscious consumption behavior of organic products would be of substantial importance to practitioners.

Organic food products are usually symbolized by an organic certification issued by an independent accredited institution for organic product testing (Bauer, Heinrich, & Schäfer, 2013). For example, the certification of organic labeling is strictly controlled by the United State Department of Agriculture (SUDA) and monitored by the National Organic Program (NOP). From growing, processing, packaging, and to labeling, USDA inspected every stage of production chain of the products in order to ensure conforming to organic standards (Global Organics, 2016). As a result, the identification of organic products is subject to the certification of organic labels from the production's view of point. From the perspective of consumers, this study investigating whether the organic labels have a positive moderating effect on the relationship between perceived value of and attitude toward organic products and between attitude toward and intention for organic products helps to understand of the importance of decision-making process of customers' organic products.

The paper will first present a literature review in perceived value of, attitude toward and purchase intention for organic products, followed by the construction of the research framework and hypotheses to be tested. Next, methodology and results, and finally, the section with discussion and results are presented.

II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Perceived value

Marketing literature defines perceived value as the perceived net gains associated with the products or services acquired (Zeithaml, 1988), that is, perceived value is a judgment by the customer of the comparison between the benefits and the costs. Similarly, Monroe & Krishnan (1985) postulates that buyers' perceptions of value are formed on a mental trade-off between perceived quality (or benefits) and perceived sacrifice (selling price). Buyers gain the net perceived value of a deal by comparing the perceived quality to perceived sacrifice.

The early definition of perceived value as a trade-off between quality and price (Jayanti & Ghosh, 1996; Oh, 1999) was criticized by some scholars that it could not reflect the commonly accepted definition and should be a multi-dimensional construct (Sheth et al., 1991a; Sweeney & Soutar, 2001). Sheth, Newman, & Gross (1991) then developed a five-dimensional framework including functional, social, emotional, epistemic and conditional value. Since epistemic value emphasizes new experiences and conditional value linked to specific circumstances, this study adopted Sweeney and Soutar's (2001) three dimensions of value model by excluding epistemic and

conditional values and measured quality and price of functional value separately to investigate the link of perceived value-attitude-purchase intention of non-food organic products.

Sheth et al. (1991) defined functional value as the perceived utility of a product or service to attain utilitarian or physical performances that results from attributes such as quality (e.g., durability and reliability) and price. Functional value is commonly composed of quality and price (Sweeney & Soutar, 2001). Quality is used to represent functional benefits. Research showed that organic food is perceived to provide the functional benefits of safe, healthiness, taste and environmental friendliness to consumers (Bauer et al., 2013; Thøgersen, de Barcellos, Perin, & Zhou, 2015). Following the reasoning, in a context of non-food organic products, this study inferred that organic products provide not only the benefit of environmental friendliness but also materials of non-toxic, safe and health to consumers.

As for price value, high price is commonly regarded as an unfavorable impact on selling products; however, marketing literature indicated that high price is perceived as an indicator of superior quality and consumers are willing to pay a price premium in the pursuit of a higher perceived value of products (Aaker, 2003). Some research showed that consumers are willing to pay a price premium for organic products (Canavari, Bazzani, Spadoni, & Regazzi, 2002; Bauer et al., 2013). Similarly, Ngobo (2011) suggested that consumers are less likely to purchase organic products at lower prices.

While functional characteristics of organic products deliver utilitarian value to consumers, organic products potentially derive psychological value, such as emotional and social value, too. Social value refers to the perceived utility that consumers were associated with social groups that reflect consumers' social image, identification, social self-concept, expression of personality and pursuit of social class membership (Bearden and Etzel, 1982; Holbrook, 1994; Sheth et al., 1991; Sweeney & Soutar, 2001). Emotional value defined as the feelings or affective states that provokes from a product or service (Sheth et al., 1991; Sweeney & Soutar, 2001).

Prior research showed that organic products offer exceptional perceived hedonism (Bauer, Heinrich, & Schäfer, 2013; Jonas & Roosen, 2005) and enjoyment (Ureña, Bernabéu, & Olmeda, 2008). Hartman & Apaolaza-Ibáñez (2012) suggested that purchasing green products at a premium price makes consumers experience intrinsic personal warm glow benefits of contributing to environmental protection. Additionally, the consumption of green products signals an image of environmentally friendly behavior providing socially visible, self-expressive value to consumers satisfying the demand of social image and identification (Hartman & Apaolaza-Ibáñez, 2012). Consumers perceived their consumption of organic products could implicitly exhibit their environmental concern and acquire a status-enhancing benefit (Jiang & Kim, 2015; Griskevicius, Tybur, & Van den Bergh, 2010).

H1a: Perceived quality positively influences consumers' attitude toward organic products.

H1b: Perceived price positively influences consumers' attitude toward organic products.

H1c: Perceived social value positively influences consumers' attitude toward organic products.

H1d: Perceived emotional value positively influences consumers' attitude toward organic products.

Perceived Value, Attitude and Purchase Intention

According to Holbrook (1996), the values influencing consumers' behavior are implicit criteria that make preference and evaluative judgments. The values also serve to direct actions, attitudes, judgments, and comparisons between specific objects and situations. Substantial literature supported the role of values in the development of environmental beliefs, attitudes, and behaviors (Gonçalves, Lourenço, & Silva, 2016; Kilbourne & Pickett, 2008). In the context of organic products, this study therefore hypothesized that consumers' perceived value of organic products has a positive effect on attitude toward organic products.

H2: Consumers' perceived value of organic products has a positive effect on attitude toward organic products.

Theory of Reasoned Action suggested that an individual's behavior is determined by his intention to perform the behavior and that this intention is, in turn, a function of his attitude toward the behavior (Ajzen & Fishbein, 1980). Empirical studies confirmed a positive association between attitude and purchase intentions (Bredahl, 2001; Chen, 2007; Han, Hsu, & Sheu, 2010; Michaelidou and Hassan, 2010; Lane and Potter, 2007; Sheppard et al., 1988; Tang and Medhekar, 2010; Hartmann & Apaolaza-Ibáñez, 2012; Tang, Wang, & Lu, 2014). For example, Han, Hsu, & Sheu (2010) based on Ajzen's Theory of Planned Behavior (TPB) model to test the formation of hotel customers' intentions to visit a green hotel and the results showed that attitude positively affected intention to stay at a green hotel. Specifically in the organic context, Therefore, this study hypothesized that consumers' attitude toward organic products has a positive effect on purchase intention for organic products.

H3: Consumers' attitude toward organic products has a positive effect on purchase intention for organic products.

Organic labels as moderating role

One of the credence attributes that are receiving increasing attention from consumers in the production chain is the organic method of production. The organic attribute related to quality and safety concerns, and embeds many environmental and ethical-related attributes is hard to be identified (Zanoli, Scarpa, Napolitano, Piasentier, Naspetti, & Bruschi, 2012). The cues of organic production are usually identified through certification or labels to enhance consumers' confidence in the production process of organic products and decrease the asymmetric information of consumers in markets (de-Magistris & Gracia, 2014).

Organic labels are a proof of certification demonstrating commitment with specific requirements in production methods. Previous research suggests that consumers use organic labels to infer positively overall quality (Larceneux, Benoit-Moreau, & Renaudin, 2011) that represents the combination of consumers' perceptions of product attributes leading to favorable attitude toward organic products (Zeithaml, 1988), therefore, this study infers that organic labels positively moderates the relationship between perceived value of organic products and attitude toward organic products. Additionally, organic production is hard to be discerned by purchase or consumption of consumers; organic certification or labels can increase consumers' confidence in

organic attributes and in turn enhance the positive effect of attitude on the intention for organic products. Therefore,

H4: Organic labels have a positive moderating effect on the relationship between perceived value and attitude toward organic products.

H5: Organic labels have a positive moderating effect on the relationship between attitude toward and intention for organic products.

The research model of this study is depicted in figure 1.

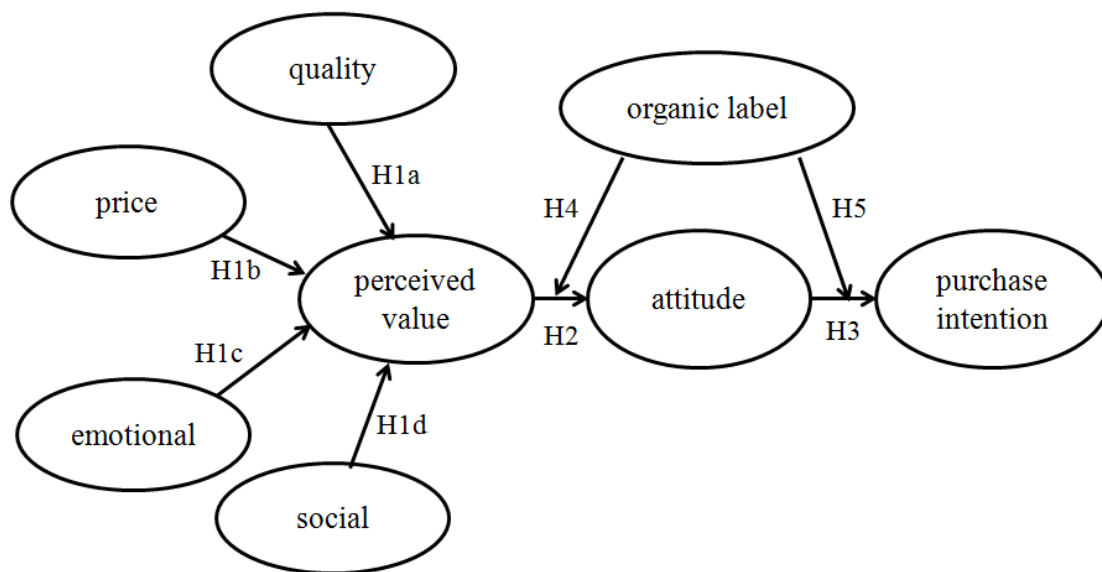


Figure 1: The research framework

III. METHODOLOGY

Self-administered questionnaires are distributed via online. The respondents are limited to those who had experiences of mobile shopping. A total of 314 responses are collected and 271 responses are usable after removing incomplete responses. Of these effective responses, 136 are from China and 135 are from Taiwan. This study conducted t test to examine whether there is group difference on construct scores between Chinese and Taiwanese. The result of t test showed that there is no significant difference of construct scores between Chinese and Taiwanese.

The questionnaire contains three following sections. The first is about the measurement of perceived value, attitude toward organic products, purchase intention for organic products, and organic label cognition. Perceived value is a second-order formative construct including quality, price, emotional and social dimensions. The constructs are measured on a five-point Likert scale ranging from 1=strongly disagree to 5=strongly agree. The second is about consumer experience in purchasing organic products including channels of purchasing organic products, information source regarding organic products and recognition of organic label. The last is demographic characteristics, such as age, education, and disposable incomes per month, marital status and occupations.

IV. RESULTS

Analysis of measurement model

This study used PLS to test the reliability and validity of the constructs (Barclay, Higgins, & Thompson, 1995; Carmines & Zeller, 1979). One attitude item was deleted due to low loadings. As seen in table 1, the results showed that composite reliability for each of the latent variables exceeded 0.7, suggesting good reliability (MacKenzie, Podsakoff, & Podsakoff, 2011). The AVE (average variance extracted), a measure of convergent validity, for each construct was greater than the recommended threshold 0.5 (Fornell, & Larcker, 1981). Additionally, all the indicators had loadings greater than the recommended 0.7 (Carmines & Zeller, 1979), and that indicators loaded well on their respective constructs. These test results demonstrate good convergent validity. The construct correlations were lower than the square root of AVE of their respective constructs (Fornell, & Larcker, 1981) and all the indicators loaded well on their own construct and poorly on other constructs, suggesting good discriminant validity.

Table 1: CR, AVE and Correlations of the Constructs

	CR	AVE	1	2	3	4	5	6	7
1. Attitude	0.94	0.84	0.92						
2. Intention	0.97	0.90	0.80	0.95					
3. Organic label	0.95	0.86	0.53	0.57	0.93				
4. Quality	0.95	0.81	0.72	0.73	0.57	0.90			
5. Price	0.92	0.76	0.69	0.74	0.60	0.78	0.87		
6. Emotional	0.96	0.86	0.66	0.69	0.51	0.84	0.73	0.92	
7. Social	0.97	0.87	0.53	0.53	0.29	0.65	0.64	0.71	0.94

Diagonal elements are the square root of AVEs and off-diagonal elements are correlations

Perceived value is a formative second-order construct in the model, the assessments of measurement quality of second-order construct is conducted in two stages, at the first-order construct level and at the second-order construct level. The measurement assessment of first-order reflective constructs is executed in the previous section. At the second-order construct level, using the weights of the first-order constructs on the second-order constructs to assess the contribution of each first-order construct to these second-order construct (Chin, 1998; Hair, Black, Babin, & Anderson, 2012). As seen in table 2, All the first-order constructs weights are higher than 0.1 and significant, demonstrating empirical support for the first-order constructs relevance for the construction of the formative second-order construct and an appropriate level of validity (Andreev, Heart, Maoz, & Iiskin, 2009). Moreover, the examination of multicollinearity between the first-order constructs is desirable, excessive multicollinearity can destabilize the second-order construct (Diamantopoulos & Winklhofer, 2001). The variance inflation factor (VIF) was used to check the potential problems of multicollinearity. With values among 2.20 to 4.33, far below the cut-off of 5 (Hair, Sarstedt, Ringle, & Mena, 2012) suggesting

that multicollinearity is not a problem. Therefore, H1a-H1d were supported.

Tabel 2: Weights, t value and VIF of first-order constructs on the second-order construct

Second-order construct	First-order construct	weights	t value	VIF	Hypotheses	Conclusion
Perceived value	Quality	0.29	44.14	4.33	H1a	Supported
	Price	0.26	42.68	2.81	H1b	Supported
	Emotional	0.30	48.79	4.15	H1c	Supported
	Social	0.27	36.64	2.20	H1d	supported

Hypotheses Testing Results

Figure 2 provides the results of the structural model. As earlier mentioned, H1a-H1d were supported and the weights were shown at figure 2. Regarding the relationships of antecedents of value of information disclosure, benefits ($\beta=0.49, P<0.01$) and risk ($\beta= -0.22, P<0.01$) of information disclosure influenced value of information disclosure positively and negatively respectively, supporting H1 and H2. Prior privacy experience positively influenced risk of information disclosure ($\beta=0.34, P<0.01$), supporting H3.

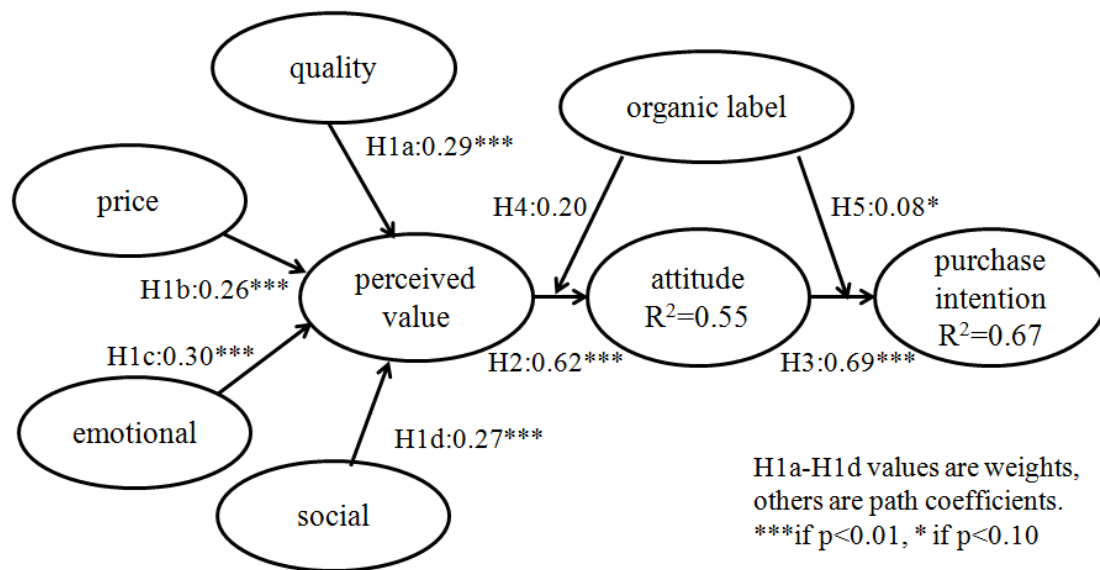


Figure 2: PLS Results

As predicted, H2 and H3 were supported: perceived value of organic products increases attitude toward organic products ($\beta=0.62, P<0.01$), which in turn enhances purchase intention for organic products ($\beta=0.69, P<0.01$).

As to the moderating effects of organic label, the organic label has a significantly and positively moderating effect on the relationship between attitude and purchase intention ($\beta=0.08, P<0.10$) supporting H5, however, the organic label has no significantly moderating effect on the relationship between perceived value

and attitude, not supporting H4. One explanation that organic label does not add perceived value on attitude toward organic product in the present study may be that respondents have not enough knowledge and familiarity with organic label or details about organic standard.

V. DISCUSSION AND CONCLUSION

This study contributes to preliminary but important insights in effective promotion of non-food organic products. The study concludes that the main influential factors on perceived value of organic products include psychological values and functional values, and perceived value increases attitude toward organic products, thereby enhance purchase intention for organic products. In addition to the functional benefits, providers of organic products could appeal psychological benefits to add value of organic products, and in turn lead to a positive effect on attitude and purchase intention for organic products. Furthermore, the result that organic label increases the positive effect of attitude on purchase intention for organic products provides that linking organic label concept to attitude toward organic products could be an effective marketing strategy to increase purchase intention for organic products. The result that organic label does not add perceived value on attitude toward organic product implies that consumers may not have enough trust and knowledge on organic label, therefore, it need more marketing and education in organic label to encourage consumers' purchase for organic products.

Future research can take this study further by addressing several limitations of this study. First, the data for this study were drawn from a convenience sample and generalization of the results must be made with caution, researchers could seek to obtain larger, more representative samples which encompass more geographic regions of China. Second, this study did not use a specific or existing organic label to examine the effect of organic label on the link of value-attitude-intention, future studies investigating perceived attributes (ex., information, trust, familiarity etc.) involving organic labels could facilitate understanding for the moderating roles of organic labels on the link of value-attitude-intention of organic products. Finally, future research would be to expand upon the product categories or the mix effects with organic labels and origin of production together. Retail outlets may influence attitude and purchase intention for organic products.

References

- [1]. Andreev, P., Heart, T., Maoz, H., & Iiskin, N. 2009, December. Validating formative partial least squares (PLS) models: Methodological review and empirical illustration, Thirtieth international conference on information systems, Phoenix, AZ.
- [2]. Barclay, D., Higgins, C., & Thompson, R. 1995. The partial least squares (PLS): Approach to causal modeling: personal computer adoption and use as an illustration. *Technology Studies*, 2(2): 285–309.
- [3]. Bauer, H. H., Heinrich, D., & Schäfer, D. B. 2013. The effects of organic labels on global, local, and private brands: More hype than substance? *Journal of Business Research*, 66(8): 1035-1043.
- [4]. Canavari, M., Bazzani, G.M., Spadoni, R., & Regazzi, D. 2002. Food safety and organic fruit demand in Italy: A Survey. *British Food Journal*, 32:104:220.

- [5]. Carmines, E. G., & Zeller, R. A. 1979. Reliability and validity assessment. Thousand Oaks, CA: SAGE.
- [6]. Chan, R. Y. K. 2001. Determinants of Chinese consumers' green purchase behavior.
- [7]. *Psychology and Marketing*, 18(4): 389-421.
- [8]. Chin, W. W. 1998. The partial least squares approach for structural equation
- [9]. Modeling. in *Modern Methods for Business Research*, G. A. Marcoulides, ed. Mahwah, NJ: Lawrence Erlbaum Associates, pp.295-336.
- [10]. Diamantopoulos, A., & Winklhofer, H. M. 2001. Index construction with
- [11]. formative indicators: An alternative to scale development. *Journal of Marketing Research*, 38(2): 269-277.
- [12]. Daunfeldt, S.-O., & Rudholm, N. 2014. Does shelf-labeling of organic foods increase sales? Results from a natural experiment. *Journal of Retailing and Consumer Services*, 21(5), 804-811.
- [13]. De Ferran, F., & Grunert, K.G. 2007. French fair trade coffee buyers purchasing motives: an exploratory study using means-end chains analysis. *Food Quality and Preference*, 18(2): 218-229.
- [14]. Durif, F., Boivin, C., & Julien, C. 2010. In search of a green product definition.
- [15]. *Innovative Marketing*, 6(1): 23-31.
- [16]. Elkington, J., & Hailes, J. 1988. *The Green Consumer Shopping Guide from Shampoo to Champagne-High Street Shopping for a Better Environment*, London:
- [17]. Victor Gollancs.
- [18]. Fornell, C., & D. F. Larcker, D. F. 1981. Evaluating structural equation models
- [19]. with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1): 39-50.
- [20]. Fotopoulos C., Krystallis, A. 2001. Purchasing motives and profile of the Greek organic consumer: A countrywide survey. 71st European Association of Agricultural Economists.
- [21]. Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. 2012. An assessment of
- [22]. the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3): 414-433.
- [23]. Hair, J., W. C. Black, W. C., Babin, B. J., & Anderson, R. E. 2010. *Multivariate Data*
- [24]. *Analysis*. Upper Saddle River, NJ: Prentice Hall.
- [25]. Hill, H., Lyncheaun, F. 2002. Case study: Organic milk: Attitudes and consumption patterns. *British Food Journal*, 104:526-542.
- [26]. Honkanen, P., Verplanken, B., & Olsen, S.O. 2006. Ethical values and motives driving organic food choice. *Journal of Consumer Behaviour*, 5(5): 420-430.
- [27]. Hoogland, C.T., de Boer, J. & Boersema, J.J. 2007. Food and sustainability: do consumers recognize, understand and value on-package information on production standards? *Appetite*, 49, 47-57.
- [28]. Khare, A. (2015). Antecedents to green buying behaviour: A study on consumers in an emerging economy. *Marketing Intelligence & Planning*, 33(3), 309-329.
- [29]. Li, P. 2011. Analysis of the structure of low carbon consumption. *Consumer Economics*, 27(4): 15-18.
- [30]. MacKenzie, S., Podsakoff, P., & Podsakoff, N. 2011. Construct measurement and validation procedures

- in MIS and behavioral research: Integrating new and existing techniques. *MIS Quarterly*, 35(2): 293-334.
- [31]. Limnios, E.M., Schilizzi, S. G. M., Burton, M., Ong, A., & Hynes, N. 2016. Willingness to pay for product ecological footprint: Organic vs non-organic consumers. *Technological Forecasting and Social Change*.
- [32]. doi: <http://dx.doi.org/10.1016/j.techfore.2016.05.009>
- [33]. Soler, F., Gil, J.M., Sanchez, M.. 2002. Consumers' acceptability of organic food in Spain. *British Food Journal*, 104:670–687.
- [34]. Sun, Y. 2010. A new exploration of low carbon consumption in a low carbon economy era. *Journal of Shanxi Finance and Economics University*, 32(S2): 63-70.
- [35]. Tang, Y., Wang, X., & Lu, P. (2014). Chinese consumer attitude and purchase intent toward green products. *Asia-Pacific Journal of Business Administration*, 6(2), 84-96.
- [36]. Thøgersen, J. 1999. The ethical consumer: Moral norms and packaging choice. *Journal of Consumer Policy*, 22(4): 439-460.
- [37]. Thøgersen, J. 2011. Green shopping for selfish reasons or the common good? *American Behavioral Scientist*, 55(8): 1052-1076.
- [38]. Thøgersen, J., de Barcellos, M. D., Perin, M. G., & Zhou, Y. 2015. Consumer buying motives and attitudes toward organic food in two emerging markets. *International Marketing Review*, 32(3/4): 389-413.
- [39]. Ureña F, Bernabéu R, Olmeda M. 2008. Women, men and organic food: Differences in their attitudes and willingness to pay: A Spanish case study. *International Journal of Consumer Studies*, 32:18–26.
- [40]. Global Organics (2016, March 29). Category: Organic & sustainability, quality & certifications. Retrieved from
- [41]. <http://www.global-organics.com/post.php?s=2016-03-29-4-categories-of-organic-product-labels>
- [42]. AGPRO (2013, June 24). Global organic sales reach \$63 billion, U.S. is largest market. Retrieved from <http://www.agprofessional.com/news/Global-organic-sales-reach-63-billion-US-is-largest-market--212753341.html>
- [43]. Organic Trade Association (2016). Market analysis. Retrieved from <https://www.ota.com/resources/market-analysis>
- [44].