

Why Do Consumers Participate in Ecological Boycott? An Exploratory Study Using Means-End Chains Analysis

Thanh Hoai, Nguyen¹, Hai Quynh, Ngo², Pham Ngoc Nha, Ngo³, Gi-Du, Kang⁴

^{1,2,3,4}Department of Business Administration, Soongsil University, 369 Sangdoro, Dongjak-gu, Seoul 156-173, Korea

Abstract: *Ecological boycott has been grown during the past years, and hence it becomes important to understand this field better. One of the key aspects in ecological boycott context that has not been sufficiently considered is consumers' motivation. While motivations for economic, religious, social, political boycotts have previously been investigated, the motives for ecological boycott participation require further investigation. A methodologically inflexible exploration of boycotting motives can thus provide useful answers for why consumers participate in ecological boycott. Based on the theoretical foundation of means-end chain analysis, the current study aims at investigating the motives underlying the participate of ecological boycotting by interviewing Vietnamese consumers who participated in ecological boycott in recent years. While previous researches on boycott motivations have focused only on different single boycott motives, the current study uses a means-end approach and laddering technique that enables a hierarchical link between motives to be investigated, thereby effectuating an understanding the subtleties of ecological boycott behavior and salient dimensions in consumers' cognitive process. The findings would expect to support for the company's response strategies minimizing negative impacts as well as for boycotting organizers calling for consumers' boycott participation.*

Keywords: ecological boycott, motivation, means-end chain

1. Introduction

Boycott popularity has increased during the past years. Boycott actions have been stimulated by increasing consumers' attention to corporate social responsibility (Klein, Smith, and John 2004) and are often used as one of the most effective movements punitive companies that engage in practices judged unethical or unjustified (Friedman 1999). A consumer boycott is an attempt by one or more parties to achieve certain objectives by urging individual consumers to refrain from making selected purchases in the marketplace (Friedman, 1985). There is a range of research literature related to consumer boycotts. Some research has explored how firms can respond once a boycott occurs (Easley and Lenox, 2006). There are papers that show historical overviews of boycotts and depict examples of actual boycotts (Braunsberger and Buckler, 2011), and give different classifications of boycotts (Cruz et al., 2013). Additional some papers identify strategies that companies can use in order to protect themselves against boycotts or apply socio-psychological theories to demonstrate and explain the influences of a boycott and the factors that lead to consumers' decision to participate in a boycott (Innes, 2006). Boycotts are also increasingly popular in the Asian region including Vietnam, especially ecological boycott. Ecological boycott occurred when consumers perceive that a company is operating in a harmful way towards the environment (Cruz et al., 2013). Therefore, withholding to purchase products that are seen as environmentally harmful can be a way for consumers to protect the environment as well. Since 2010, there are numerous cases of boycotts that were motivated by environmental issues committed by firms in Vietnam (e.g., Vedan company, Formosa company). One of the highly relevant aspects in ecological boycott context that has not been sufficiently taken into account is consumers'

motivation.

The present study will focus on applying the Means-End theory and laddering technique that enable a hierarchical link between constructs to be explored and recorded inductively, thereby effectuating an understanding of ecological boycott behavior through an expression of valued outcomes that are personally meaningful. It can give valuable insights by stimulating consumers to reflect on their participating motives in boycott behaviour. This is not only concerning from an academic point of view, but can also be considerable information for companies to explain consumer behavior and serve their market better. In addition, consumer boycott organizers can use this information to engage consumers better with their campaigns.

2. Literature Review

2.1 Boycott motivation

Studies also focus on a consumers' motivations to participate in a boycott. Across these studies, several motivations to boycott participation were explored. These include the perceived success likelihood of a boycott, a consumer's susceptibility to normative influences, the costs associated with the boycott such as availability of substitutes or preference for boycotted products (Sen et al., 2001), instrumental and clean hand motivations (Kozinets and Handelman, 1998; Klein et al., 2002), the desire for social change (Kozinets and Handelman, 1998), self-enhancement, the perceived egregiousness of the company's actions (Akpyomare et al., 2012; John & Klein, 2003, Klein et al., 2004; Abdul-Talib & Abdul-Latif, 2015), consumer nationalism (Shoham et al., 2006; Tian & Pasadeos, 2008), ethnocentrism (Balabanis et al., 2001), and involvement of the consumer with the boycott cause (Albrecht et al., 2013). Some studies have focused on studying religious beliefs as a

motivation for individuals to participate in consumer boycotts (Flurry, and Parker, 2011; Al-hyari et al., 2012). Expressing emotions is a motivation to participate in a consumer boycott (Klein et al., 2002; Ettenson & Klein, 2005; Smith & Li, 2010). While motivations for economic, religious, social, political boycotts have previously been investigated, the motives for ecological boycott participation require further investigation.

Additionally, these studies focus on a few specific motivations that do not give a full explanation of the ecological boycott behavior. Consumer motivations are a complex object of study as they are assorted, they vary by individual, and are affected by their environment. Even those boycott motivations can influence each other. Consumers have diverging motives to participate in a ecological boycott and they tend to have multiple motivations for participation as well. Thus, it is essential that there is a classification of these motivations and then examine the relationship between them and their influence on the consumer boycotts (John & Klein, 2003). Qualitative research methods could be used to explore consumer motivations for ecological boycotting more in depth. By interviewing a selected group of consumers participated in ecological boycotts, a deeper understanding on the motivations to this boycott could be sought. With a qualitative study method, the potential to discern underlying boycott motivations is greater. Therefore, this study note argues that the Means-End Chain is a useful method that can be applied to conceive the subtleties of boycott behavior and significant dimensions in their thinking. This is important for identifying the unique values that consumers bring with them into a ecological boycott.

2.2 Means-End Chain Theory

As consumers often do not consciously think about the motivation underlying their behavior, the challenge that researchers are faced with is uncover motivation. A method that has found prevalent acceptance for exploring motives is means-end chain analysis (e.g., Pieters et al., 1995; Wagner, 2007).

Means-end chain (MEC) analysis is a qualitative method for examining individuals' general cognitive structures in decision making (Aurifeille and Valette-Florence, 1995). This method derives from the psychology of personal constructs by Kelly (1955), who stated that people make sense of the world by assorting its aspects into a set of hierarchically arranged level, of which the most abstract ones stimulate behaviour and the more specific ones correspond to behavioural options. The concept was presented into consumer behavior research by Gutman (1982) where the hierarchical degrees were delineated as attributes, consequences and values, and where the discovered links between them detect the selection of attributes when making purchases. Means are objects' attributes in which people appoint. Ends are appreciated states of being such as security, fun, and achievement. In that sense, each MEC describes "a sequence of causal implications—an attribute implies a consequence which implies a value" (Mulvey et al., 1994).

Additionally, the MEC method is also related to Expectancy Value Theory (Fishbein and Ajzen, 1975; Rosenberg, 1956), which offers that consumers' attitude towards and assessment of an offer base on the expected performance of that offer regarding the underlying motives, and on the value adhered to each motive. Therefore, the study suggests that MEC theory has related and possible application in boycott research. In a boycott context, MEC analysis can thus be used to explore the cognitive linkages between boycott attributes, different consequences elicited through boycott participation, and consumers' personal values. The underlying assumption is that such a hierarchical frame is a Illustration of the different goals and motives underlying consumers' boycott decision making (Pieters et al., 1995; Rifkin, 1985). This takes into account that consumer behavior is affected by the pursuit of different goals. An advantage of the MEC approach is therefore that it takes into account motives at different hierarchical levels, thereby differentiating between lower-order functional and psychosocial motives, and higher-order motives involving several of the former (Mooradian and Olver, 1996). This would allow researchers to deeper understand the uncovered motives in the consumers' boycott decision making.

2.3 Laddering Technique

The most ordinarily used technique to evolve information within the MEC method is laddering that focuses at evoking respondents' means-end structures by examining for a number of ladders, feedbacks with an increasing level of abstraction, by the repeated question "why is it important to you?" (Grunert & Grunert, 1995; Reynolds & Gutman, 1988). With the expressed goal of inducing sets of linkages between the attributes (A), consequences (C), and values (V), these discriminations at the divergent levels of abstraction, illustrated by the A-C-Vs, give more personally related ways in which objects are grouped and categorised. From a brief table called Implication Matrix, major connections can be displayed graphically as a figure in the form of a hierarchical value map (HVM). The purpose of this stage is to try to avoid crossing lines, giving connection to the map that is structural in nature and exhibits the linkages across levels of abstraction, and adding appreciably to its interpretation (Reynolds & Gutman, 1988). The important condition imposed then is that the completed HVM must represent a considerable number of the associations based on the raw laddering data. Gengler and Reynolds (1995) suggest that the minimum threshold value should be more than 70%, with an average number regularly between 75 and 85%. Researchers have argued that HVMs are helpful for improving marketing strategies (Olson & Reynolds, 2003). Other researchers have applied HVMs to compare cognitive structures between groups of consumers in different countries (Bredahl, 1998; Grunert, 1997; Grunert et al., 2001). HVMs have also been accepted to understand brand persuasion (Reynolds, Gengler, & Howard, 1995) and are apparently useful for making new products by resolving the so-called consumer black box of stimulating and unexplored new utility areas. Generally, the means-end chain method and the laddering technique appear suitable for examining how consumers link the boycott attribute to underlying motives and values.

3. Methods

3.1 Sampling

Because of the exploratory nature of the study, we used a convenience sample. Vannoppen, Huylenbroeck, Verbeke, and Viaene (1999) suggest that convenience samples are accepted in the laddering research method. A criterion is that respondents should be willing to answer and they understand the ecological boycott well.

Reynolds and Gutman (1988) indicate that a pool of 50-60 respondents gives the opportunity to address the research questions by assessing several different answers during the development of the hierarchical value map. Thus, the participants for this study were 57 Vietnam consumers. The respondents were men or women between 20 and 50 years, who participated for ecological boycotts in recent three years.

3.2 Data collection

Laddering is a commonly technique accepted to develop means-end chains. The purpose of the technique is to identify the links between attributes, consequences and values (Reynolds & Gutman, 1988). The laddering interviews were performed over the end two months of 2017. Before the 57 ladder interviews we carried out 5 pilot interviews in order to test the interview guide. Because of ensuring that respondents could ease and have their interviews in a comfortable environment, the interviews have been performed at locations that respondents have offered in Vietnam.

Using a laddering technique, participants attended individual interview sessions from 30 minutes to 1 hour. Each respondent was individually asked by a trained researcher. After collection of the demographical data, the researcher interviewed each respondent to recognize motives of their boycott participation that they felt were most considerable. And then, follow-up questions are asked in order to understand why specific attributes are important. Respondents were advised that there are no wrong or right answers. The series of questions continues until the respondent reveals a value or could no longer give any further information (Klenosky & Saunders, 2007).

3.3 Data Analysis

Coding of the data and content analysis was implemented according with the related literature (Kassarjian, 1977; Reynolds & Gutman, 1988). After accomplishing the interviews, the material had to be analyzed to establish so called content codes. Each code is labeled as an attribute, consequence, or value, and then all data are assorted into elements. The analysis of laddering data relates summarizing the vital aspects of the respondents by a standard content analysis approach into a framework displaying the predominant connections among attributes, consequences and values. Based on Gengler and Reynolds (1995), Veludo-

de-Oliveira, Ikeda, and Campomar (2006) described the laddering analysis process as follows:

- Data reduction;
- Content analysis of the aspects which previously selected;
- Summary of relations in content codes, generating an implication matrix (IM) of all paired relationships;
- Development of a map to significant represent the key conclusion of the study, the hierarchical value map (HVM).

4. Results

4.1. Content Analysis

In analyzing the large number of feedbacks to the triadic assorting and laddering tasks, the first step was to develop a careful content analysis of all evoked concepts. For this task, we based on a set of codes to summarize concepts with similar meaning. The content analysis results comprised extraction of eleven attributes, fifteen consequences, and ten values (as shown in Table 1).

Table 1: Content codes and frequencies

Attribute	Frequency	Consequence	Frequency	Value	Frequency
A01 Environment Concern	41	C01 Distinct Feelings of Guilt	38	V01 Social Recognition	44
A02 Boycott Message	38	C02 Moral Obligation	40	V02 Feel Good	6
A03 Reference Group's Influence	42	C03 Attract Large Number of Participants	35	V03 Security	13
A04 Fight Targeted Company	39	C04 Express Emotion	34	V04 Health	5
A05 Ease of Participation	21	C05 Persevere Environment	34	V05 Quality of Life	2
A06 Be Useful	18	C06 Social Pressure	41	V06 Sustainability	43
A07 Non-violent	14	C07 Perceived Success	27	V07 Accomplishment	33
A08 Try New Thing	8	C08 Desire for Social Change	39	V08 Meaning in Life	37
A09 Transparent	4	C09 Positive	35	V09 Self-enhancement	40
A10 The Credibility of the Leader	6	C10 Make a Contribution	17	V10 Stimulation	10
A11 Challenge	5	C11 No Blameworthy Consequences	13		
		C12 Make a Difference	9		
		C13 Inspiring Sharing	7		
		C14 Learn More Something	7		
		C15 Avoid Health Problem	8		

4.2. The implication matrix

Following content analysis, an implication matrix (IM) was developed that demonstrates the total linkages between each pair of discovered concepts. The IM rows and columns show the links between Attribute-Consequence-Value, and the figures in the table reveal the links between variables (as shown in Table 2). Next, we selected a cut-off value to decide which relations should be shown on the map. Grunert, Beckmann, and Sorensen (2001) argue that a cut-off point of between 3 and 5 is usually adapted for a sample of 50-60 participants. Gengler and Reynolds (1995) suggested that the cutoff is usually 5% of participants. Thus we included any link in the HVM for which the total number of associations is greater than or equal to three (5% x 57 subjects = 2.85, rounded to 3). Thus, the links referred less than three times are not displayed in the hierarchical value map.

Table 2: Implication Matrix

4.3. The hierarchical value map (HVM) of ecological boycott motivation

An HVM outlines the links across levels of abstraction for all the respondents (Reynolds and Gutman, 1988), and this study shows the reasons as to why Vietnamese people are motivated to participate in ecological boycott (Figure 1).

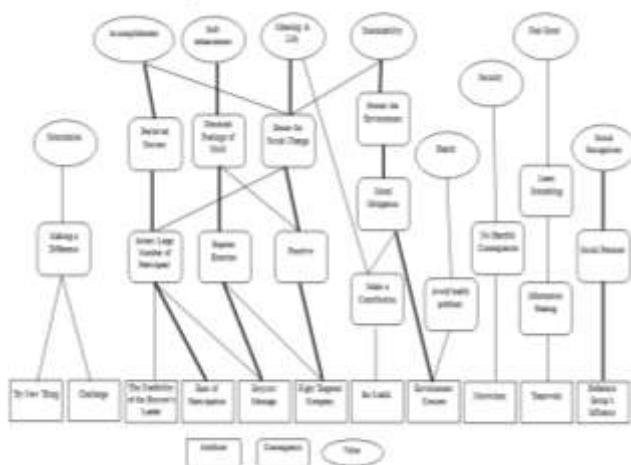


Figure 1: The HVM of ecological boycott motivation

The thicker the line, the more times the relation were referred by the respondents. As a result, these thicker lines represent the key MECs. Five key MECs emerged from the data analysis, giving insights into the motivations of Vietnamese consumers for ecological boycott. Each of the five key MECs are discussed below.

4.3.1. Primary path analysis

Figure 1 shows the important linkage paths of consumer participating ecological boycott in Vietnam. The following explains the major five paths respectively. Each of the five key paths are discussed below.

a) Ease of Participation (A05) - Attract Large Number of Participation (C03) - Perceived Success (C07) - Accomplishment (V07)

The first path was labelled “Ease of Participation - Attract Large Number of Participation - Perceived Success - Accomplishment”. Consumers can easily join in boycotts

without asking for any conditions. Ease of participation is attractive to the large number of participant because consumers do not need to spend much money and time for the boycott. Consumers normally believe that a larger number of people are able to achieve more than a single person. This means that a large number of people boycotting are more likely to have an influence on the respective company and lead to change than a single boycotting consumer. People generally have a trend to be positively engaged in successful events as they enjoy being the member of a successful group. Therefore, if a consumer thinks that a boycott will be successful, he or she will be more willing to participate in that boycott. High perceived success of the boycott will create sense of accomplishment for consumers.

b) Boycott Message (A02) – Express Emotion (C04) – Diminish Feelings of Guilt (C01) – Self-enhancement (V09)
 The second path also found that an individual’s motivation to engage in a boycott is affected by pro-boycott message frame that demonstrates the likelihood of boycott success. Through this boycott message, consumers can express their emotions. The results revealed that participants not only expressed a desire to participate in boycott activities as a means of reflecting their ethical beliefs and values, but they also described the emotive aspects. In some cases, the consumers indicated the motivational role of negative emotions in influencing their boycott choices. Many participants stated that they tended to participate boycotts because of feelings of disgust. Consumers might participate in a boycott simply to express their anger about the egregious behavior. This notion means that emotions have an crucial role in influencing and motivating boycott choice. Consumers would feel guilty if they did not participate in the boycott, and want to do that in order to avoid the feeling of guilt. It leads to the intrinsic value that could be gained is self-enhancement. Self-enhancement motivations can also motivate consumers to participate in boycotts to avoid the feeling of guilt resulting from engaging in marketing transactions with the targeted companies.

c) Fight Targeted Company (A04) – Punitive (C09) – Desire for Social Change (C08) – Meaning in Life (V08)
 The third key path, displayed in the figure, focuses on consumers’ interests in company that harm the environment. Participants take action against the targeted company to punish it by boycotting its products/services. It can also be expressed in consumers’ desire to change behavior of society. By participating in a boycott, a consumer can aim to change the behavior of the boycott target and voice the opinion of the consumer on correct conduct regarding the boycott issue. They think that doing so leads to support other companies for environmental protection. It is also considered to be important for enhancing life’s meaning when consumers satisfy their need for the things they are interested in.

d) Environment Concern (A01) – Moral Obligation (C02) – Protect the Environment (C05) – Sustainability (V06)
 Environment concern appears to be an significant attribute for consumers. They think that environmental concerning is very important because they are inhabitants of this planet. They want to participate the ecological boycott to support

the environment cleaner for the planet to survive. Participants feel they have a responsibility and moral obligation to do that because it's essential to protect the environment. They have to do everything they can to help the environment and reduce companies' negative impact. Environmental protection itself is mainly combined with the core value of sustainability so that they can enjoy their lifestyle on planet for as long as possible.

e) Reference Group's Influence (A03) – Social Pressure (C06) – Social Recognition (V01)

Findings suggest that consumers' boycotting decisions are strongly influenced by their reference groups. It derives from the participants likely forming their expectations on the basis of extrinsic rewards, such as social recognition rather than inherent values and beliefs. Consumers want esteem from others and are concerned about their image in the eyes of other people. As boycott functions collectively, social pressures can have a meaning strength to affect consumers' decision to boycott with the cause of the boycott. This could be more appropriate in Eastern cultures (ie. Vietnam) as the importance on collectivistic values is accented and it outweighs individualistic values. Participants think that they achieve the goal of personal through exhibiting competence according to social standards and thereby attaining social approval.

4.3.2. Other paths analysis

Several other ladders are also provided but their frequencies are low. According to the respondents, when they participate in the ecological boycott, they work as a team. In this process, participants can make friendships within the team. They believed that they had gained a lot of knowledge and experience from the team. The respondents pointed out that through the information sharing; they were able to better understand the contents of boycotting, company, environment issues. This had in turn boosted knowledge. It makes them feel good emotionally to be able to be strong.

One of the other characteristics of boycott that respondents refer to is non-violent. The boycotts usually take place in peace, and thus it avoid taking risks and don't lead to harmful consequences. Respondents seek safety for themselves and their families. So the security value is one of the reasons they decide to participate in the boycott.

Some of participants think that boycott is useful to make a contribution for society. It is moral obligation and make their lives more meaningful. Environment concerns are associated with consequence related to avoid health problems, and thus providing better health for respondent.

Respondents also think that boycott provides challenge and new experience. They feel excited when they participated. They believe that boycotts are effective and that their actions can make a difference in outcomes, by influencing change in the target company's practices or on the ethical treatment of the environment. And then, they hope to attain stimulation value when they participate in the boycott.

5. Conclusions

In summary, the main goal of the study was to shed light on ecological boycott' motives and personal values in general. The findings illustrate some motivations that appear to be in consumers' minds when participating in the ecological boycott. Those results can be of particular significance for companies, boycott organizers, but also to the consumers themselves.

The results of this paper raised many new questions to which future research could look for answers. Especially the relationships between boycott motivations could be studied further to understand how these affect each other. Possibilities to create profiles of different ecological boycotters could be looked into. To further study and validate the motivations to boycott, motivations specific to ecological boycotts could be added into quantitative study and analysis. With qualitative research methods, where the study of a phenomenon is made in-depth, the plausible amount of observations is limited and thus a quantitative study method with a large amount of observations would allow the researcher to make conclusions on the most relevant motivations of consumer to participate in ecological boycotts. In addition, the study was conducted in Vietnam, and applications of the results to other cultures may be limited. National culture could affect consumers boycott behaviour and motivations and this possibility can be investigated by future research.

References

- [1] Abdul-Talib, A. N., & Abdul-Latif, S. A., "Antecedents to Willingness to Boycott among Malaysian Muslims," *Emerging Research on Islamic Marketing and Tourism in the Global Economy*, pp. 70-106, 2015.
- [2] Akpoyomare, O. B., Adeosun, L. P. K., Ganiyu, R. A., Vargas-Barraza, J. A., & Suarez, M. L. G., "Consumer motivations for participation in boycotts," *Business and Management Review*, 2(9), pp. 1-8, 2012.
- [3] Albrecht, C. M., Campbell, C., Heinrich, D., & Lammel, M., "Exploring why consumers engage in boycotts: Toward a unified model," *Journal of Public Affairs*, 13(2), 2013.
- [4] Al-Hyari, K., Alnsour, M., Al-Weshah, G., & Haffar, M., "Religious beliefs and consumer behaviour: from loyalty to boycotts," *Journal of Islamic Marketing*, 3(2), pp. 155-174, 2012.
- [5] Balabanis, G., "Surrogate boycotts against multinational corporations: consumers' choice of boycott targets," *British Journal of Management*, 24(4), pp. 515-531, 2013.
- [6] Braunsberger, K., & Buckler, B., "What motivates consumers to participate in boycotts: Lessons from the ongoing Canadian seafood boycott," *Journal of Business Research*, 64(1), pp. 96-102, 2011.
- [7] de Paula Andrade Cruz, B., Pires Jr, M., José, R., & Dutt Ross, S., "Gender difference in the perception of guilt in consumer boycott," *Revista Brasileira de Gestão de Negócios*, 15(49), 2013.

- [8] Ettenson, R., & Gabrielle Klein, J., "The fallout from French nuclear testing in the South Pacific: A longitudinal study of consumer boycotts," *International Marketing Review*, 22(2), pp. 199-224, 2005.
- [9] Friedman, M., "Consumer boycotts in the United States, 1970–1980: Contemporary events in historical perspective," *Journal of consumer affairs*, 19(1), pp. 96-117, 1985.
- [10] Friedman, M., *Consumer boycotts: Effecting change through the marketplace and the media*. Psychology Press, 1999.
- [11] Gengler, C. E., Klenosky, D. B., & Mulvey, M. S., "Improving the graphic representation of means-end results," *International Journal of Research in Marketing*, 12(3), pp. 245-256, 1995.
- [12] Grunert, K. G., & Grunert, S. C., "Measuring subjective meaning structures by the laddering method: Theoretical considerations and methodological problems," *International journal of research in marketing*, 12(3), pp. 209-225, 1995.
- [13] Innes, R., "A theory of consumer boycotts under symmetric information and imperfect competition," *The Economic Journal*, 116(511), pp. 355-381, 2006.
- [14] Klein, J. G., Smith, N. C., & John, A., "Why we boycott: Consumer motivations for boycott participation," *Journal of Marketing*, 68(3), pp. 92-109, 2004.
- [15] Kozinets, R. V., & Handelman, J., "Ensouling consumption: A netnographic exploration of the meaning of boycotting behavior," *ACR North American Advances*, 1998.
- [16] Leppard, P., Russell, C. G., & Cox, D. N., "Improving means-end-chain studies by using a ranking method to construct hierarchical value maps," *Food quality and preference*, 15(5), pp. 489-497, 2004.
- [17] Sen, S., Gürhan-Canli, Z., & Morwitz, V., "Withholding consumption: A social dilemma perspective on consumer boycotts," *Journal of Consumer research*, 28(3), pp. 399-417, 2001.
- [18] Smith, M., & Li, Q., "The boycott model of foreign product purchase: an empirical test in China," *Asian Review of Accounting*, 18(2), pp. 106-130, 2010.
- [19] Swimberghe, K., Flurry, L. A., & Parker, J. M., "Consumer religiosity: Consequences for consumer activism in the United States," *Journal of Business Ethics*, 103(3), pp. 453-467, 2011.
- [20] Reynolds, T. J., & Gutman, J., "Laddering theory, method, analysis, and interpretation," *Journal of advertising research*, 28(1), pp. 11-31, 1988.
- [21] Van Rekom, J., & Wierenga, B., "On the hierarchical nature of means-end relationships in laddering data," *Journal of Business Research*, 60(4), pp. 401-410, 2007.

Hai Quynh, Ngo received M.S. degrees in Danang University of Economics in 2010. She is now doctoral student at School of Economic, Soongsil University, Korea.

Pham Ngoc Nha, Ngo received B.S. degrees in Danang University of Economics in 2014. She is now master student at School of Economic, Soongsil University, Korea.

Dr. Gi-Du, Kang received his B.S, MBA, and Ph.D from Chung-Ang University, Korea. He received another Ph.D. from University of Illinois at Urbana-Champaign, USA.

Author Profile

Thanh Hoai, Nguyen received the B.S. and M.S. degrees in Danang University of Economics in 2008 and 2013, respectively. She is now doctoral student at School of Economic, Soongsil University, Korea.