Green Innovative Product and Its Effects on Environmental

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Abstract. The presence of green innovative product (GIP) is observed to influence consumers’ purchasing decisions as they become more ecologically aware of the effects caused by conventional products’ consumption to the environment. This article reviews the concept behind GIP and its effect on consumer’s behavior. The article focuses on the meaning and classification of GIP and on how it affects consumer’s behavior in terms of their satisfaction, environmental attitude and also purchase. Several issues that arise for customer when they consume GIP will be raised. The article will also address why the industry such as oil and gas needs to cater to the need for GIP and provide basic guidelines on how this is achieved without too much difficulty. The insights are expected to help build our understanding on the importance of GIP to be researched and on the potential of its commercial value that encourages consumers to repeat purchase after consuming it. In addition, the insights may give an idea for government and the industry in forming and formulating appropriate policies as well as increasing public’s environmental sensitivity. The article implies the important connection between GIP and individual’s identity as well as their ecological beliefs.

Keywords - Satisfaction, Environmental Attitude, Purchase, Green Innovative Product

1 Introduction

This article discusses the concept of green innovative product (GIP) and of its effect on consumer’s satisfaction, environmental attitude and purchase behavior. The article starts with a brief introduction on GIP, followed by literature review linking the concept of GIP to consumer’s environmental attitude, satisfaction, and behavior and ends with a conclusion of the discussion.

Green consumption is usually related to environmentally responsible consumption where consumers consider the environmental impact of purchasing, using, and disposing of various products, or using various green services (Follows & Jobber, 2000). Today, many industries have reorient their operations to meet their businesses and stakeholders’ demand for green product consumption. The demands have led corporate decision makers facing increasing public sensitivity, stricter regulations, and growing stakeholder pressure that are all focused on preserving the natural environment (Chang, 2011). Mainly, encouragement for consumers to consume environmentally friendly (or green)
products is attributed to the world’s attention to existing global environmental problems (Choi & Fielding, 2013). More customers have shifted their preferences towards choosing products and services that are more environmentally friendly (Leonidou, Katsikeas, & Morgan, 2013); and more decisions are made due to the benefits and uses offered by the green products (Cherian & Jacob, 2012).

While the consumer’s shift towards green product purchase and consumption meant that a segment of green consumers is found, many companies find it difficult to turn this newfound segment opportunity to their advantage; particularly because they struggle to make green products available, to ensure sales locations accessible and to offer affordable price of the green products as per demanded by the green consumer segment. These limitations cause consumers to feel that they are not given maximum opportunity to consume green products (Hur, Woo, & Kim, 2015). As companies continue their effort to increase consumer awareness on sustainable, environmentally friendly products and services, they believe that offering consumers with green innovative product (GIP) is how they can meet up with current consumer desires (Wong & Wong, 2014). It is important to note the difference between green product and GIP. In brief, green product refers to a product designed with reduction usage ability of natural resources and that it can be recycled (Ariffin et al., 2016). On the other hand, green innovative product (GIP) is the end result marketers get when they focus on combining environmental conservation practices at every stage of their creation of goods and services (Dagher & Itani, 2012). Thus, we can briefly conclude that GIP is an upper or specific version of green product as the GIP stresses on finding the innovation that can be applied on the whole process of producing the green product. This is why the product is now known not as the green product but green innovative product. Green consumption, green product and GIP are very much encouraged to ensure sustainable development is achieved globally.

2 Literature review
2.1. Understanding the concepts of Green Product, Green Innovation and Green Innovative Product

Many definitions on green product have been found in the literature. Ariffin et al.’s (2016) definition for example refers to a product that is designed to reduce usage of natural resources; and which can be recycled (Ariffin et al., 2016). Another definition found refers to it as a product related to decisions and actions with aim to protect or benefit the natural environment by saving energy and/or resources and reducing pollution and waste (Danjelico and Pujari 2010). As can be seen, the two definitions are quite similar since protection of the environment is considered the key function of green products. Some examples of green products on the market are household items produced with post-consumer plastic or paper, recyclable or reusable packaging, energy-saving light bulbs and detergents containing materials that can be biodegradable, not polluting and free of synthetic dyes or perfumes (Tan, 2011), including fuel-efficient vehicles, organic food, health products (Rungie, Uncles, & Laurent, 2013; Hur, Woo & Kim, 2015). According to Hur, Woo & Kim (2015), marketing of green products requires strategic (e.g. contribute to the development of effective promotional strategies of environmentally considered products, specifically hybrid cars) and tactical (e.g. packaging, labelling) approaches. For instance, strategically, companies can choose to use green product design techniques (Baumann et al. 2002) while tactically, companies can decide on how they should package and label the products in ways that are more environmentally friendly (Hur, Woo & Kim, 2015). Importantly, a product can be green as long as it is focused on being environmentally friendly, either in piecemeal or wholesome package. The tendency to minimize impact on the environment has resulted in the evolution of green innovation studies.

There are two types of green innovation research. The first type defines green innovation as the company’s ability to evaluate green commitments such as saving the environment from pollution, saving energy, and recycling useless materials (Chen, 2008), while the latter treats green innovation as a corporate environmental process through energy savings, pollution prevention, waste recycling, green product design, and environmental management (Chang, 2011). Furthermore, green innovation consists of new or modified processes, practices, systems and products that benefit the environment
and contribute to environmental sustainability (Oltra, 2009). The current study defines green innovation as a new or modified product and process, including technological, managerial, and organizational innovation, which helps maintain the surrounding environment. In addition, due to increasing customer concerns about environmental protection, environmental management has become an important part of strategic planning in many organizations (Choi & Fielding, 2013). Environmental regulations can lead to situations that can provide ease and firmness regarding the environment where it can reduce pollution and show that green innovation must be treated differently from other innovative tactics because it not only produces spillover effects for research and development efforts but also external effects positive, that is improvement in the environment (Pa, 2017).

2.2 The output of green innovation is green innovative product (GIP).

As earlier described, green innovative product (GIP) is the product that resulted from the efforts of combining environmental conservation practices at each and every step of producing goods and services (Dagher & Itani, 2012). Chang (2011) explains how environmental factors (e.g. material use, energy consumption, environmental impact) are considered by marketers in the green innovation process as products are modified and created with certain quality so that the GIP can reduce negative environmental impacts during the product’s life cycle. Green innovation is critical to production of GIP. Guoyou et al. (2013) consider green innovation as an instrument for improving company’s environmental management process, and is very much related to the changes (technologically, organizationally, socially, or institutionally) to be made in order to reduce environmental burden (e.g. pollution). Green innovation shows a hierarchical structure in the industry where the results show that product innovation and processes are important and interesting phenomena and enable companies to better anticipate changes in consumer preferences and harmonize green product innovation initiatives with consumer values, thus enabling industries with quickly innovate based on market demand to gain a competitive advantage (Lin, Chen, & Huang, 2014). Through GIP then, company would achieve competitive advantage and build respectful company’s image (Wong, 2012). Companies can offer and communicate GIP’s environmental related customers’ preferences and perceived product values to differentiate GIP from conventional products. As Chan et al. (2015) explain, consumers must be made aware that consuming GIP has an advantage over conventional product; traditionally, evaluation applied on product efficiency and impact on the environment do not consider the output produced by the consumption that consequently worsen environmental performance but with the consumption of GIP, environmental performance will be improved as well as reduce costs (Chan et al., 2015). Lin et al.’s (2013) empirical study of the automotive industry in Vietnam for example showed positive effect of green innovative product (GIP) on company’s performance. The same study also reported of GIP’s important role in influencing consumer behavior (i.e. perception consumer, satisfaction, willing to pay) and hence company’s performance (Lin et al., 2013). Chen and Burns (2006) state that solutions cannot be achieved without action and support from government, industry and consumers. Green Innovative product (GIP) must be directly related to environmental regulations or policies, so that green innovation product (GIP) can lead to good environmental performance and are the right media to change and improve environmental performance (Chang, 2011).

2.3 Consumer’s value, environmental attitude, satisfaction and purchase

Consumer value is defined as an interactive relativistic preference experience, where experience is service quality and tangible benefits as a means of adding differential value to product or service offerings (Peattie & Charter, 2003). Regarding market demand, behavior and awareness in industries that implement green innovation practices or invest in environmental management prevent higher air pollution, use of chemicals and actions that can damage the environment. Meanwhile, Hur, Woo & Kim, (2015) explained that consumer value has an influence on environmental motivation by evaluating products and product choices in buying hybrid cars in America. Furthermore Paul & Rana, (2012) states that motivation is based on understanding environmental awareness which is described in five dimensions; environmental knowledge, environmental values, environmental attitudes, desire to act and concrete actions. On the one hand, pro-environment motivation shows how consumers make green purchases, such as green food consumption among Muslim consumers and non-Muslim consumers in Malaysia by following a strict diet that complies with religious dietary laws. Meanwhile
ecological awareness factors and preferences affect consumers to buy green products. So that it becomes easy for ecologically conscious consumers to include green products in routine purchases and feel satisfied with the green product. Even consumers buy a green product if the overall satisfaction of the green product is more than non-green products but their satisfaction levels vary for different attributes. Furthermore, the concept of customer satisfaction itself, seeking an understanding of the motivation to buy "green products". Based on the influence of demographic factors, it further explores buyer socio-demographic moderation on the relationship between value and customer satisfaction (Hur, Woo, & Kim, 2015). Given the limited influence of customer satisfaction in purchasing green innovative product (GIP), where satisfaction is an important dimension for buyers. How should consumers consume green innovative product (GIP) be accompanied by environmental attitude as a manifestation of repeat buying behavior. That is, giving the expected value to buyers increases their satisfaction and thus the possibility of repeat purchases (Mittal & Kamakura, 2001).

Consumer satisfaction in consuming environmentally friendly products expresses social responsibility through the willingness to buy green products. More specifically, about consumers' willingness to make repeat purchases, as well as environmentalists or often called environmental attitudes. "Pro-social" and socially conscious consumer behavior, is responsible for environmental protection (Wells, Ponting, & Peattie, 2011). From a social marketing perspective, green consumption reflects the motivational tendency of individual consumers (Lee, 2009) and underlines social dilemmas, where individuals, communities, and environmental interests have different opinions and arguments (Schuitema & de Groot, 2015). This article focuses on identifying which value dimensions are significantly related to repeat buyer satisfaction on innovative green products. By focusing on the values underlying the assessment of satisfaction, environmental attitude, this research is intended to provide a better understanding of repeat buyers of green innovative product (GIP) and attitudes of environmentally conscious consumers.

2.4 Customer Value Satisfaction

Following the theory developed by Sheth et al. (1991), consumer choice is based on various dimensions of value, each dimension of value makes a different contribution to the chosen situation. For example, a consumer may be more influenced by utility features (for example, product, price, promotion, place), or social tendencies (for example, socially desirable consumption), depending on their level of importance. Therefore, customer value is considered as "the difference between the total benefits and the total sacrifice consumers feel when buying a product or service." The total benefits of products are a combination of product attributes and are the result of consumers using products (Monroe, 1990). Meanwhile, total sacrifice is what consumers must let go of to get the product purchased. By identifying the benefits and costs of products, consumers not only consider performance or functional aspects but also social and emotional factors as well (Sheth, Mittal, & Newman, 1999; Sweeney & Soutar, 2001). Emotions are translated as customer satisfaction where overall customer evaluation of performance and supply (Fallis, 2013). Then according to According to Chang et al. (2016), satisfaction is the evaluation of consumption experiences which refers to a series of affective (emotional) responses that arise specifically during a consumption experience (e.g., happiness, pleasure, peace, joy, and enthusiasm). This overall satisfaction has a strong positive influence on customer loyalty intentions in various product and service categories (Chen & Chang, 2013). Because overall evaluations are built over time, satisfaction usually mediates the effect of product quality, service quality, and price or equality of payments for loyalty (Chang et al., 2016). It also contains a significant affective component, created through the use of repeated products or services (Gallarza, et al., 2016).

In the context of services, overall satisfaction is similar to evaluating overall service quality. Seyed Shahin Sharifi (2014) considers satisfaction to be an affective response, centered on comparing product results with several standards set before buying, and measured during or after consumption. There are two types of emotions, positive and negative. Chang et al. (2016) also shows that positive and negative emotions can exist at the same time because customers have a zone of tolerance in emotions, where negative emotions do not affect positive emotions. Emotional values refer to feelings or affective statements of customers either experiencing or anticipating experiences when they
estimate a company's products or services (Barlow & Maul, 2000). Positive experience through consumption of products can affect customer satisfaction. Historically, satisfaction has been used to explain loyalty as a behavior (for example, the possibility of repurchasing and recommending). However, Verhoef (Ladhari, Souiden & Dufour, 2017) argues that longitudinal data that combines surveys with subsequent behavior should be used to establish a causal relationship between perception and behavior. For example, López & Sánchez, (2014).) Discover the positive effects of overall customer satisfaction on the duration of relationships for customers and Moriuchi & Takahashi, (2016). shows positive overall satisfaction with the use of customer service. In the study of large-scale hybrid customers, Ozaki and Sevastyanova, (2011), showed a strong non-linear approach, the effect of customer satisfaction on the basis of behavior, such as that the functional form of satisfaction with repurchasing increased marginally. They also found a retention-satisfaction relationship in all customer characteristics. On the basis of this research, we expect customer satisfaction to have a significant influence on customer retention that varies across customers.

2.5 Environmental Attitude

Environmental attitudes can be defined as an assessment of the value of individual environmental protection (Eze and Ndubisi, 2013). In consumer attitudes show that most individuals act according to attitude. Pa, (2017) states that concern for the environment is a strong attitude towards environmental preservation. Attitudes are defined as lasting positive or negative feelings about a person, object, or problem. Actually, this refers to information that someone has about individuals, objects, or problems (Dagher & Itani, 2012).

The social psychology literature on behavioral research has shaped attitudes as important predictors of behavior, behavioral intentions, and explanatory factors of variance in individual behavior (Barbrossa & Pastore, 2015). In many studies both of these factors have been found to be important / significant predictors from consumer pro-environment behavior, for example, the level of individual concern for environmental problems has proven to be a useful predictor of environmentally conscious behavior, namely recycling behavior (Tsai et al., (2015); Thieme et al. (2015), and green purchasing behavior (Yadav & Pathak, 2016; Ariffin et al., 2016). Barbaro et al. (2015) in their previous study showed that the presence of pro-environment attitudes does not always lead to pro-environment actions; others show a weak relationship between attitudes towards the environment and behavior of women are more dominant than men (Petratos and Damaskou, 2015).

Purchasing activities on green products provide learning about a caring behavior in the environment. Where this strengthens green identity through healthy lifestyles and environmental protection (Goh et al. (2016). Furthermore, consumer behavior in green products must focus on environmentally friendly attributes and health benefits. Environmental protection can be emphasized in repurchase behavior (Beasley, Shank & Shank, 2017) The information and consumer experience of a product influences the level of purchase. With information and consumer experience, we can identify the extent to which consumers can ensure the privileges of products they do not use (Li et al., 2017), allowing consumers to do or consume products based on uses and benefits. In this study, environmentally conscious consumers can be defined as consumers who are the environment of their personal consumption or who try to use their power to make environmental changes as evidenced by buying behavior (Sloan and Bodey, 2015) Interrupted in that, the increasing amount of information available about a product or service can increase the willingness to make a purchase so that it has an impact on good service (Li et al., 2017).

2.6 Purchase

According to Agyeman, (2014), green purchasing behavior refers to the consumption of products that are good or beneficial to the environment, can be recycled or can be maintained and are sensitive or responsive to ecological problems. Choi & Fielding, (2013) reveals that to behave environmentally friendly reflects social awareness around saving and advancing Earth's natural resources, preserving and protecting for the sake of civilization. Consumers are becoming increasingly aware of environmental problems and this has increased the demand for ecological products. If consumers have a good attitude towards the environment, consumers are more likely to buy environmentally friendly
products. Continuous awareness of environmental problems in turn can change consumer attitudes and intentions to buy hijab products. The behavior of consumers buying green products has become an important concept in the marketing literature. Previous research has revealed that consumers with buying behavior in green products show a higher level of actual purchases than consumers who indicate that they have no intention to buy (Goh et al., 2016). (Baidya & Ghosh, 2014) also supports this by showing that buying behavior represents what consumers think will be consumed. Furthermore, the behavior of certain objects is estimated by purchasing to do environmental attitude thus, purchasing positively influences the probability of consumers' decisions and skip the environment in buying green products.

2.7 Repeat Purchase

Instrumental learning theory can be applied to develop strong relationships with independent and environmentally friendly products. Repeated purchases can be linked to green innovative products through satisfaction, as well as environmental attitudes. Consumers often buy environmentally friendly products must be valued through programs that recognize "green consumers". Green consumers must be approached by companies to share their product experiences with other consumers. This will generate awareness about green products. Incentives in the form of services on innovative green products can be provided through customer satisfaction to encourage consumers through environmentally friendly attitudes and this will also encourage consumers to make repeat purchases on innovative green products.

Researchers argue that the effects of repeat purchases may depend on the habit of consuming or buying green products (Baidya & Ghosh, 2014). Many studies have empirically examined the relationship between environmental attitudes and repeat purchases (Chiu, Hsu, Lai, & Chang, 2012; Li et al., 2017), and the relationship between satisfaction and repeat purchase (for example, Chen, Liang, & Xie, 2016). Overall, the purpose of this study was to examine affective antecedents (satisfaction), environmental attitudes to repurchase.

2.8 Consumer Area in Making repeat Purchase

In relation to developing learning instruments to develop strong relationships with green innovative products on satisfaction, as well as environmental attitudes and making repeat purchase decisions. Where, repeat purchases can be positioned using 4Ps by linking to innovative green products. Consumers often buy and make repeated purchases of environmentally friendly products in this case green innovative product (GIP), must be appreciated through programs and campaigns to recognize what is meant by "green consumers". "Green consumers" must be approached by companies to share product experiences with other consumers. This will generate awareness and environmental attitudes about innovative green products. The incentive in encouraging consumers to consume green innovative product (GIP) is done by introducing green innovative product (GIP) through 4Ps so that consumers can feel satisfaction/dissatisfied with the product consumed.

3 Conclusion

Based on a comprehensive literature review, these articles provides a comprehensive collection of consumer behavior in consuming and making purchases or repeat purchase on innovative green products. This is considered as the basis of consensus among the actors involved such as; government, industry, and individuals in creating innovative products about consumer behavior in making purchase or repeat purchases. Therefore, the satisfaction and attitude of the consumer environment is an invaluable resource in shaping buying behavior. Furthermore, it was concluded that evaluation of consumer satisfaction and environmental attitudes are both important in determining the behavior of innovative green products. It seems that the environmental behavior of consumers in particular, plays an important role as a mediator between satisfaction and purchase or repeat purchases.

Furthermore, the results obtained illustrate the importance of investigating the antecedents of satisfaction and environmental attitudes to make predictions of behavior with regard to willingness to buy back green innovative product (GIP). Therefore, this article emphasizes the fact that satisfaction,
environmental attitudes and environmental purchases must be incorporated into psychological and social resources in shaping consumer behavior. The high level of involvement of individuals with innovative green products is shown by the attitude of the environment to influence their choices regarding consumer assessment and satisfaction in consuming innovative green products.

In conclusion, consumer satisfaction, environmental attitudes have an important role in shaping purchase or repeat purchase behavior of green innovative product (GIP). Where the results are obtained from the benefits and results obtained for consumers and the environment. This study aims to explain the newly created sustainability for environmental attitudes on green consumer behavior (consisting of green consumer behavior) based on the behavior provided in this article. This is a longitudinal contemporary study because it validates the findings of previous studies.

References
[1] Agyeman, C. M. (2014). Consumers ’ Buying Behavior Towards Green Products: an Exploratory Study. International Journal of Management Research and Business Strategy, 3(1), 188–197.
[2] Ariffin, S., Yusof, J. M., Putit, L., & Shah, M. I. A. (2016). Factors Influencing Perceived Quality and Repurchase Intention Towards Green Products. Economics and Finance, 37(16), 391–396.
[3] Baidya, M., & Ghosh, G. (2014). An empirical investigation of repeat buying behavior of customers of two brands in India. Journal of Indian Business Research, 6(3), 255–268.
[4] Barbarossa, C., & Pastore, A. (2015). Why environmentally conscious consumers do not purchase green products A cognitive mapping approach. Qualitative Market Research: An International Journal, 18(2), 188–209.
[5] Barlow, J., & Maul, D. (2000). Emotional Value. San Francisco, Ca: Berrett-Koehler.
[6] Baumann, H., Boons, F., & Bragd, A. (2002). Mapping the green product development field: engineering, policy and business perspectives. Journal of Cleaner Production, 10, 409–425.
[7] Beasley, F. M., Shank, M. D., & Shank, M. D. (2017). The Effect of Price Promotions on Repeat Purchase Behavior The Effect of Price Promotions on Repeat Purchase Behavior, 6491 (May).
[8] Chang, C.-H. (2011). The Influence of Corporate Environmental Ethics on Competitive Advantage: The Mediation role of Green Innovation; Springer Science & Business Media B.V.: Berlin, Germany; pp. 361–370.
[9] Chan, H. K., Yee, R. W. Y., Dai, J., & Lim, M. K. (2015). The moderating effect of environmental dynamism on green product innovation and performance. International Journal of Production Economics.
[10] Chang, S.-H., Chih, W.-H., Liou, D.-K., & Yang, Y.-T. (2016). The mediation of cognitive attitude for online shopping. Information Technology & People, 29(3), 618–646.
[11] Chen, Y.-S. (2008). The driver of green innovation and green image—Green core competence. J. Bus. Ethics, 81, 531–543.
[12] Chen, Y.-S.; Lai, S.-B.; Wen, C.-T.(2006). The influence of green innovation performance on corporate advantage in taiwan. J. Bus. Ethics. 67, 331–339.
[13] Chen, Y.S., Chang, C.H. (2013).Towards green trust: the influences of green perceived quality, green perceived risk, and green satisfaction. Manag. Decis. 51(1), 63–82.
[14] Cherian, J., & Jacob, J. (2012). Green marketing: A study of consumers’ attitude towards environment friendly products. Asian Social Science, 8(12), 117–126.
[15] Choi, A. S., & Fielding, K. S. (2013). Environmental attitudes as WTP predictors: A case study involving endangered species. Ecological Economics, 89, 24–32.
[16] Dagher, G. & Itani, O. (2012). The influence of environmental attitude, environmental concern and social influence on green purchasing behavior. Review of Business Research, 12 (2),104-111.
[17] Danjelico, R. M., & Pujari, D. (2010). Mainstreaming green product innovation: why and how
companies integrate environmental sustainability. *Journal of Business Ethics*, 95, 471–486.

[18] Fallis, A. . (2013). Education Service Experience: From The Aspects of Students’ Satisfaction and Loyalty. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.

[19] Follows, S.B. and Jobber, D. (2000), “Environmentally responsible purchase behaviour: a test of a consumer model”, *European Journal of Marketing*, Vol. 34 Nos 5/6, pp. 723-46.

[20] Gallarza, M. G., Ruiz-Molina, M. E., & Gil-Saura, I. (2016). Stretching the value-satisfaction-loyalty chain by adding value dimensions and cognitive and affective satisfactions: A causal model for retailing. *Management Decision*, 54(4), 981–1003.

[21] Guoyou, Q., Saixing, Z., Chiming, T., Haitao, Y., Hailiang, Z., 2013. Stakeholders' influences on corporate green innovation strategy: a case study of manufacturing firms in China. *Corp. Soc. Responsib. Environ. Manag.*, 20 (1), 1–14.

[22] Goh, S. K., Jiang, N., Faiz, M., Hak, A., & Tee, P. L. (2016). International Review of Management and Marketing Determinants of Smartphone Repeat Purchase Intention among Malaysians: A Moderation Role of Social Influence and a Mediating Effect of Consumer Satisfaction. *International Review of Management and Marketing*, 6(4), 993–1004.

[23] Hur, W.-M., Woo, J., & Kim, Y. (2015). The Role of Consumer Values and Socio-Demographics in Green Product Satisfaction: The Case of Hybrid Cars. *Psychological Reports, 117*(2), 406–427.

[24] Ladhari, R., Souiden, N., & Dufour, B. (2017). The role of emotions in utilitarian service settings: The effects of emotional satisfaction on product perception and behavioral intentions. *Journal of Retailing and Consumer Services*, 34 (September 2016), 10–18.

[25] Li, X., Hitt, L. M., Zhang, Z. J., Li, X., Hitt, L. M., & Zhang, Z. J. (2017). Product Reviews and Competition in Markets for Repeat Purchase Products Product Reviews and Competition in Markets for Repeat Purchase Products, 1222 (May).

[26] Lin, R. -J., Tan, K. -H., Geng, Y., ., 2013. Market demand, green product innovation, and firm performance: evidence from Vietnam motorcycle industry. *J. Clean. Prod*. 40, 101–107.

[27] Lin, R.-J., Chen, R.-H., & Huang, F.-H. (2014). Green innovation in the automobile industry. *Industrial Management and Data Systems, 114*(6), 886–903.

[28] Lee, K., (2009) Gender differences in Hong Kong adolescent consumers’ green purchasing behavior. *Journal of Consumer Marketing*, 26, 87 – 96.

[29] Leonidou, C. N., Katsikeas, C. S., & Morgan, N. a. (2013). “Greening” the marketing mix: Do firms do it and does it pay off? *Journal of the Academy of Marketing Science*, 41(2), 151–170.

[30] López-Mosquera, N., & Sánchez, M. (2014). Cognitive and affective determinants of satisfaction, willingness to pay, and loyalty in suburban parks. *Urban Forestry and Urban Greening*, 13(2), 375–384.

[31] Mittal, V., & Kamakura, W. A. (2001) Satisfaction, Repurchase Intent, And Repurchase Behavior: Investigating the Moderating Eff Ect Of Customer Characteristics. *Journal of Marketing Research*, 38, 131 – 142.

[32] Mohd Suki, N., & Mohd Suki, N. (2015). Consumption values and consumer environmental concern regarding green products. *International Journal of Sustainable Development & World Ecology*, 4509 (January 2016), 1–10.

[33] Monroe , K. B. (1990) *Pricing: Making Profit Table Decisions*. New York: Mcgraw-Hill.

[34] Moriuchi, E., & Takahashi, I. (2016). Satisfaction trust and loyalty of repeat online consumer within the Japanese online supermarket trade. *Australasian Marketing Journal*, 24(2), 146–156.

[35] Oltra, V.; Saint Jean, M. (2009); Sectoral systems of environmental innovation: An application to the french automotive industry. *Technol. Forecast. Social Chang.*, 76, 567–583. 42.

[36] Ozaki, R. and Sevastyanova, K. (2011), “Going hybrid: an analysis of consumer purchase motivations”, *Energy Policy*, Vol. 39 No. 5, pp. 2217-2227.

[37] Pa, A. (2017). Environmental knowledge and attitudes and behaviours towards energy consumption. *Journal of Environmental Management*, 197, 384–392.

[38] Paul, J., & Rana, J. (2012). Consumer behavior and purchase intention for organic food. *Journal of Consumer Marketing*, 29(6), 412–422.

[39] Peattie, K., & Charter, M. (2003). Green Marketing. *The Marketing Book*, 726–755.
[40] Rungie, C., Uncles, M., & Laurent, G. (2013). Integrating consumer characteristics into the stochastic modelling of purchase loyalty. *European Journal of Marketing, 47*(10), 1667–1690.

[41] Seyed Shahin Sharifi, M. R. E. (2014). The impacts of relationship marketing on cognitive dissonance, satisfaction, and loyalty. The mediating role of trust and cognitive dissonance. *International Journal of Retail & Distribution Management, 42*(6), 553–575.

[42] Sheth, J. N., Mittal, B., & Newman, B. I. (1999). *Customer Behavior: Consumer Behavior And Beyond*. Fort Worth, Tx: The Dryden Press.

[43] Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why We Buy What We Buy: A Theory Of Consumption Values. *Journal Of Business Research, 22*, 159–170.

[44] Sweeney, J. C., & Soutar, G. N. (2001). Consumer Perceived Value: The Development Of A Multiple Item Scale. *Journal Of Retailing, 77*, 203–220.

[45] Tan, B.-C. (2011). The Roles of Knowledge, Threat, and PCE on Green Purchase Behaviour. *International Journal of Business and Management, 6*(12), 14–27.

[46] Thiem, J., Royne, M. B., Jha, S., Levy, M., & Barnes McEntee, W. (2015). Factors affecting the relationship between environmental concern and behaviors. *Marketing Intelligence & Planning, 33*(5), 675–690.

[47] Tsai, C., Tsai, C., & Tsai, C. (2015). Impacts of Consumer Environmental Ethics on Consumer Behaviors in Green Hotels. Impacts of Consumer Environmental Ethics on Consumer Behaviors in Green Hotels. *7051*(September).

[48] Wong, S.K.S., 2012. The influence of green product competitiveness on the success of green product innovation: empirical evidence from the Chinese electrical and electronics industry. *Eur. J. Innov. Manag. 15* (4), 468–490.

[49] Wong, S. K., & Wong, S. K. (2014). The influence of green product competitiveness on the success of green product innovation. Empirical evidence from the Chinese electrical and electronics industry.

[50] Yadav, R., & Pathak, G. S. (2016). Young consumers’ intention towards buying green products in a developing nation: Extending the theory of planned behavior. *Journal of Cleaner Production, 135*, 732–739.