
Green Purchasing Behavior Analysis of Government Policy About Paid Plastic Bags

Muhammad Khoiruman^{1*} and Aris Tri Haryanto¹

¹STIE AUB, Department of Management, Surakarta, Indonesia

*Correspondence to: Muhammad Khoiruman, STIE AUB, Department of Management, Jalan Mr Sartono 46 Nusukan, Surakarta 57135, Indonesia.
E-mail: khoiruman@stie-aub.ac.id

Abstract: This research will be conducted to know: 1) The influence of green perceived value to consumer green trust to use plastic bag after the policy of using plastic bag paid at modern retail store in Surakarta. 2) The influence of green perceived risk to consumer green trust to use plastic bag after the policy of using plastic bag paid at modern retail store in Surakarta. 3) The effect of green trust on green purchase behavior of consumers to use plastic bags after the policy of using plastic bag paid at modern retail store in Surakarta. The study was conducted in modern retail stores (Alfamart, Indomart and Superindo) in Surakarta using 200 respondents who shop at the modern retail store. A model that can be used to measure green purchasing behavior in the use of paid plastic bags using four interrelated variables: green perceived value, green perceived risk, green trust and green purchasing. Data analysis using Structural Equation Model (SEM). The result of analysis and discussion showed that green perceived value have positive and significant effect to green trust, green trust has positive effect on green purchasing, but green perceived risk has no significant effect to green trust.

Keywords: paid plastic bag, green perceived value, green perceived risk, green trust and green purchasing, modern retail outlet.

Article info: Received 17 January 2017; revised 25 March 2017; accepted 29 March 2017

Recommended citation: Khoiruman, M. & Haryanto, A. T. (2017). Green Purchasing Behavior Analysis of Government Policy About Paid Plastic Bags. *Indonesian Journal of Sustainability Accounting and Management*, 1(1), 31–39.

DOI: 10.28992/ijsam.v1i1.25

Introduction

Seeing the problems that threaten the sustainability of the environment, the society is increasingly required to have a pattern of consumption of goods and services that do not have a negative impact on the environment to full fill basic human needs or commonly referred to as sustainable consumption (sustainable consumption). Seyfang (2007) defines sustainable consumption is rising up the environmental policy menu, as a strategy to achieve more sustainable development which requires widespread changes in behavior at all levels of society to reduce the environmental impacts of consumption.

Public awareness and government policy through regulation or legislation is needed to maintain environmental sanitation including community awareness to reduce the use of plastic bags in the life of Indonesian society. Campaigns for reducing the use of plastic bags have been started by local agencies in various Indonesia, one of which was recorded since October 2010 under the name of Diet Plastic Pouch by

Greeneration Indonesia in Bandung. Then in 2015 comes the 'Movement of Indonesia Diet Plastic Bag' is a national association that has a mission to invite people to be more wise in using plastic bags. Diet has the meaning of 'BIJAK in consuming', this campaign aims to reduce the use of excessive plastic bags. IPB students also pioneered the plastic bag reduction movement by campaigning the use of reusable bags to a number of ASEAN countries through the ASEAN Reusable Bag Campaign.

Public awareness to preserve the environment will be able to run and achieve its objectives if supported by government policy through regulations or legal standard and the will of companies that produce or use plastic bags in their business activities. The Minister of Environment and Forestry has issued Circular Letter No. SE-071/Men LHK-II/2015 on waste management measures and Circular Letter of Directorate General PSLB3 No. SE-06/PSLB3-PS/2015 dated December 17, 2015 anticipating the establishment of a pay-plastic bag policy on modern retail businesses to governors, mayors, regents and businesses. The circular is supported by the Association of Indonesian Retail Entrepreneurs (APRINDO) who tested the application of plastic bags in modern retail per February 21 to June 2016 in 22 cities in Indonesia namely Jakarta, Bandung, Bekasi, Depok, Bogor, Tangerang, Surakarta, Semarang, Surabaya, Denpasar, Palembang, Medan, Balikpapan, Banjarmasin, Makassar, Ambon, Papua, Jayapura, Pekanbaru, Banda Aceh, Kendari, and Yogyakarta. Prepaid plastic bags used in modern retail outlets are environmentally friendly plastic bags that can minimize the impact on the environment. The environmentally friendly raw materials are polyethylene (PE) Degradable Grade Asrene. The material will decompose after exposure to hot weather, sunlight or pressure within 1 to 2 years used for the manufacture of shopping bags, wrapping, and similar applications.

The success of government policy to invite environmentally conscious people at the very high level of use of plastic bags in their lives needs to be studied further in a study on green purchase behavior, which is a consumer consideration of the associated environmental attributes or characteristics of a product in their purchasing process, mainly refers to purchasing behavior related to environmentally friendly products or organic products (Yan, 2013). Green Purchase Behavior is a continuation of the global consumerism movement that begins with consumer awareness of its rights to secure a viable, safe, and environmentally friendly product. While consumers who have environmental awareness is often also called green orientation. Consumer awareness concerning the quality of the environment and the preservation of natural resources on living conditions will ensure the balance and sustainability of nature and its environment. Recently, the problem caused by exploitation of natural resources and environment has experienced an increase in Indonesia (Gunardi et al., 2016; Rokhmawati & Gunardi, 2017).

Wu & Chen (2014) defines green marketing as all activities designed by the company in order to meet human needs by reducing adverse impacts on the environment. Irandust & Bamdad (2014) define green marketing as a marketing strategy that supports the environment by creating benefits to the environment, based on what consumers expect.

Peter & Olson (2010) argue that purchasing decisions are a process of integration that combines knowledge to evaluate two or more alternative behaviors and choose one of them. There are seven components of the purchasing structure that are decisions about product type, form, brand, sales, product quantity, time of purchase, and mode of payment (Swastha & Irawan, 2008). Green purchasing is a purchasing decision based on environmental principles. Green purchasing is the practice of applying environmental criteria to the selection of products or services to be purchased.

Trust is a commitment of a particular party to another in a transactional relationship, which is based on a belief that the person he or she believes will fulfill all its obligations well, as expected (Adji & Samuel, 2014). Chen (2010), states that green trusts are as a willingness to rely on a product, service or brand based on beliefs or expectations resulting from credibility, good deeds and skill on environmental performance.

Chen & Chang (2012), defines green perceived value as the overall assessment of the consumer for all the benefits received and what is sacrificed based on the desires of the environment. Chen & Chang (2012), stated that there is a positive relationship between green perceived value to consumer green trust in environmentally friendly products. The result is based on the fact that to consumers who already know the information on the benefits to be gained from the use of a product will create a trust and interest in the product. The same is also stated Pratama (2014), the results of his research get a positive relationship between green perceived value to consumer green trusts on Philips LED lights.

According to Bolton & Drew (1991), it says that green perceived value is represented as a net profit from the overall assessment of consumers through the evaluation of products or services. So, any benefit that consumers receive from consuming an organic product that will have a good impact on the consumer or become a profit in the can from consuming the product is as a perceived value of the product.

Green purchase behavior represents a complex form of ethical decision-making behavior and is considered a type of socially responsible behavior. As a socially responsible consumer, the green consumer takes into account the public consequences of his or her private consumption and attempts to use his or her purchasing power to bring about social change (Moisander, 2007). Green purchasing is most often measured as green purchase intention and behavior. Green purchase intention refers to consumers' willingness to purchase green products. Intentions capture the motivational factors that influence green purchase behavior of consumers (Ramayah et al., 2010).

Based on the background, researchers want to do research on public awareness to reduce the use of plastic bags after the government's policy of imposing paid pocket bags for modern retail stores. This research is important to do because it aims to determine the effectiveness of the policy towards changes in consumer purchasing behavior oriented to environmental sustainability.

This research will be conducted to know: 1) the influence of green perceived value to consumer green trust to use plastic bag after the policy of using plastic bag paid at modern retail store in Surakarta. 2) the influence of perceived risk to consumer green trust to use plastic bag after the policy of using plastic bag paid at modern retail store in Surakarta. 3) The effect of green trust on green purchase behavior of consumers to use plastic bags after the policy of using plastic bag paid at modern retail store in Surakarta.

Methods

This research was conducted in modern retail store in Surakarta (Alfamart, Indomart and Superindo) and population in this research is the people of Surakarta city who shop at modern retail store with the number of respondents as much as 200. The model used to measure green purchasing behavior in this study used four interrelated variables: green perceived value, green perceived risk, green trust and green purchasing as seen in the figure 1.

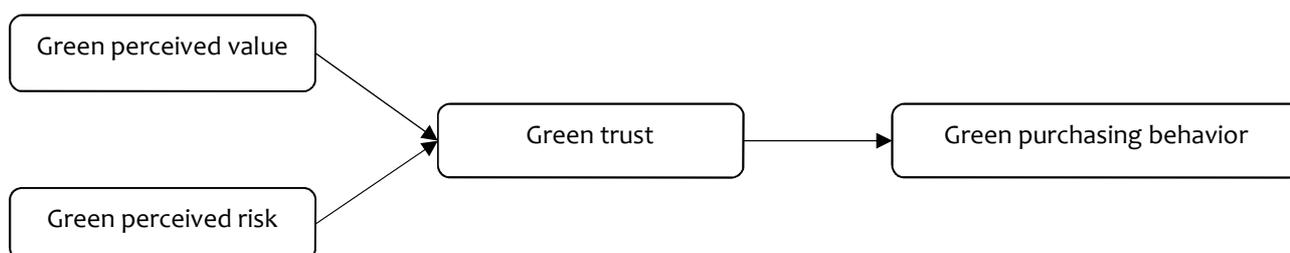


Figure 1 Green Purchasing Behavior Model

Data analysis in this research using Structural Equation Model (SEM) a multivariate analysis technique which is a combination between factor analysis and regression analysis (correlation), which aims to examine the relationships between variables that exist in a model, either inter-indicator with the construct or relationships between constructs. SEM is used to perform confirmatory analysis. A model is based on a theory, then test whether the model is acceptable or rejected.

Results and Discussion

The result of AMOS output in this study yields a degrees of freedom value of 50 (positive), it indicates that the model belongs to the category of over identified because it has a positive degrees of freedom value. Therefore, data analysis can be continued in the next stage.

Table 1 Computation of Degrees of Freedom (Default Model)

Number of distinct sample moments:	78
Number of distinct parameters to be estimated:	28
Degrees of freedom (78 - 28):	50

Next is done back measurement model. The result as shown in the figure 2.

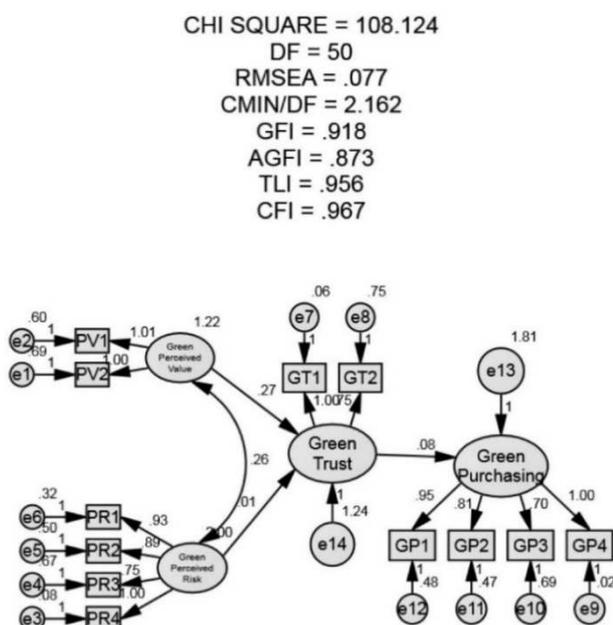


Figure 2 Full Model Structural

The loading factor value of all indicators in the model is shown in Table 2. Based on the table it turns out all the indicators have a loading factor whose value is more than 0.50. Thus, all indicators are declared valid. Therefore, the model is said to be fit. The result of SEM model calculation as shown in Figure 2 gives the index of goodness of fit as shown in Table 3.

Based on Table 3 it can be seen that the RMSEA, GFI and TLI test criteria show fit results while the AGFI and CMIN/DF criteria show poor fit. But it can be concluded that model testing performed to produce a good confirmation of the factors dimensions and causality relationships between factors. Thus, the model is acceptable.

Table 2 Indicator Loading Factor Value After Re-Estimation

Construct	Indicator	Code	Loading Factor
Green Perceived Value	Benefit compared to environmental sustainability	PV1	1.01
	Price compared to environmental sustainability	PV2	1.00
Green Perceived Risk	The incidence of waste issues when using the product	PR1	0.93
	The emergence of flood problems when using the product	PR2	0.89
	The emergence of soil pollution problems when using the product	PR3	0.75
	Destructive consumer image if purchased product	PR4	1.00
Green Trust	Trust the reputation of the product on the environment	GT1	1.00
	Trust the product safety on the environment	GT2	0.75
Green Purchasing Behavior	Buy products because consumers care about the environment	GP1	0.95
	Consumers buy products because of environmentally friendly products	GP2	0.81
	Consumers buy the product because the low price.	GP3	0.70
	Reluctance to use products other than paid plastic bags	GP4	1.00

Based on the test results obtained that the green variables perceived have a direct positive effect on the green trust variable of 0.256 with the value of p-value 0.003. At the level of confidence 0.05 means the influence of these variables is significant because the value of p-value is smaller than 0.05. The result of the analysis shows that green perceived value has positive and significant effect to green trust, it means that the higher the consumer's evaluation of all the benefits received and what is sacrificed based on the concern for the environment, the consumer's trust on the importance of the plastic bag paid for the environment will be increasing.

Table 3 Goodness of Fit Index

Criteria	Result model	Critical value	Conclusion
RMSEA	0.077	≤ 0.08	Fit
GFI	0.918	≥ 0.90	Fit
AGFI	0.873	≥ 0.90	Poor Fit
CMIN/DF	2.162	$1.063 \leq 2.00$	Poor Fit
TLI	0.956	≥ 0.90	Fit

Consumer assessment of paid plastic bags sold in modern retail stores will shape consumer confidence that the product is an environmentally friendly product. This condition is formed because: 1) Consumers believe that the paid plastic bags provided by Alfamart, Indomart and Superindo are products that are truly

environmentally friendly. 2) Consumers are aware and believe that the benefits of using a paid plastic bag will reduce environmental damage, materials made for paid plastic bags will break down so as not to pollute the soil that is detrimental to the future of the environment. 3) Consumers are aware and believe that the price of plastic bags is much cheaper than the benefits for the environment in the future. 4) Consumers also believe that other benefits derived from this policy are the use of money from the sale of plastic bags to pay for various environmental saving programs.

Based on the above conclusions, the following suggestions are developed: 1) Government as policy maker, to improve the information to the public through various media so that the public increasingly understand the dangers of using plastic and the importance of plastic bags paid as an environmentally friendly substitute products 2) Transparent use of money from the sale of plastic bags paid for environmental rescue program, this will increase the consumer's assessment of the perceived value due to the use of a plastic bag. 3) Plastic bags paid by Alfamart, Indomart and Superindo are products that are really environmentally friendly to avoid cheating by the modern retail outlet to replace with ordinary plastic bags in order to increase profits. Violent legal action should be treated for this kind of cheating.

Based on the test results obtained that the green variables perceived have a direct positive effect on the green trust variable of 0.010 with p-value value 0.950. At the level of confidence 0.05 means the influence of these variables is not significant because the value of p-value greater than 0.05. Thus, it can be concluded that the second hypothesis is not proven and insignificant.

Communities consider that paid plastic bags have a small risk of good environmental sustainability. The perceived risks consumers make when purchasing plastic bags are paid include: 1) Functional risk: the risk that the plastic bag is paid does not have the performance as expected, for example cannot decompose on the ground so that the environment. 2) Physical risk: the risks to self and others that can be caused by the product such as plastic bag containing substance which is dangerous when used or contaminate luggage when exposed to heat. 3) Financial risk: a risk on a product that does not match its price, to keep the environment in the future society is expected to sacrifice, e.g. buy environmentally friendly plastic bags at a certain price, the plastic bag paid is considered too high then the public will assume that the risk of not using a plastic bag paid is not worth the price.

The results show that green perceived risk has no significant effect on the meaning that consumers already have good information about the plastic bag paid and consider the product is environmentally friendly with the level of risk to damage the small environment. This condition makes the unexpected consequences that consumers want to avoid when buying and using the product (green perceived risk) of plastic bag products paying no significant effect on green trust.

Based on the test results obtained that the variable green trust has a direct positive effect on the green purchasing variable of 0.315 with a value of p-value 0.002. At the level of confidence 0.05 means the influence of these variables is significant because the value of p-value is smaller than 0.05. Thus, it can be concluded that the third hypothesis is proved and significant.

Green purchase behavior can be interpreted into an action consume consumable products, beneficial to the environment and respond to environmental concerns. Green purchase behavior is a pro-environmental attitude that refers to purchasing and consuming products that have minimal impact on the environment.

The purchase of a paid plastic bag is influenced by consumer confidence that the product is good for the future of the environment. Consumers purchasing paid plastic bags are influenced by: 1) Consumers care about the environment, they believe that the product is an environmentally friendly product. 2) The consumer believes that the price paid for the paid plastic bag is cheaper than the benefits of the product for a better environment in the future. 3) Consumers believe that the paid plastic bag products provided by modern retail stores are truly eco-friendly products.

The result of the analysis shows that green trust has positive effect on green purchasing, meaning that the higher the consumer confidence of the importance of the plastic bag paid for the environment will increase the willingness of the community to purchase plastic bags in modern retail stores.

Based on the background, it can be identified several factors that affect green purchasing. All of these factors can be a driver or remove consumers to make a green purchase. Differences in behavior in the green purchase can be inferred by these factors. Most researchers report that consumers' high concern for environmental and social issues, and the functional and green attributes of products are the two major sets of motives that drive their green purchase behavior.

In this research, consumer confidence (green trust) is formed because consumers believe the benefits of purchasing a paid plastic bags will help the environment and the product's price is not problem than the future of a better environment. Research conducted by Makatouni (2002) also describes the concern and sense of responsibility towards environmental and social issues. Padel & Foster (2005) also discuss about the environment in the future will motivate the purchase of green products. Consumer attention to the environment is found to be related to the moral and ethical obligations of individuals and/or personal norms (Doran, 2009). It has been found that consumers' true moral obligations or personal norms related to environmental welfare might enhance the attitude-behavior relationship. On the other hand, consumers who show a positive attitude towards green products, but does not have a strong moral reputation of the improvement of the environment would probably not choose green products, especially if they have other product choices.

Consumer confidence that a paid plastic bag is safe for the environment is a factor that significantly affects the behavior of green purchasing. Reputation of products will increase consumer confidence, according to Tsakiridou et al. (2008) study of products with good functional and ethical attributes and high quality will make a strong motive to buy and is a necessary prerequisite for translating a positive attitude into actual purchasing action. On the other hand, poor quality and poor product attributes can lead to conflicts between personal consumer tendencies, and a sense of environmental and social responsibility, which can widen the gap in behaviors.

In this study price is not a barrier to consumers to be concerned about environmental improvements and social improvements, respondents are willing to pay a high price for the improvement of their environment, but in many other studies proves price becomes a factor that acts as an obstacle and increases inconsistencies between positive consumer attitude and actual green purchasing behavior. A study conducted by Vermeir & Verbeke (2008) and a study by Young et al. (2010) concluded that higher prices were reported as a significant barrier to purchasing environmentally friendly products. Companies generally charge high prices for green products on the other hand consumers are generally price sensitive, they are willing to buy environmentally friendly products but do not want to pay them for a higher price. Research by (Eze & Ndubisi, 2013) concluded that Consumers generally prefer green products at low prices and pay more attention to prices than green claims. So, if the price of the product is higher than their expectations, it will undermine the effect of their green attitudes and increase the gap in behaviors in green purchases.

It is clear from the discussion above that various factors motivate or hinder the behavior of green purchases and affect the translation of a positive attitude toward actual purchasing actions. However, further research is required in different or wider locations to determine the role of these factors and the extent to which they influence green buying behavior. But the findings in this study are expected to be good inputs for governments as policy makers to socialize policies with higher intensity and for modern retail outlets in setting their marketing strategies so they can convince them to buy eco-friendly plastic bag products.

Conclusion

Green perceived value has positive and significant effect to green trust, it means that the higher the consumer's evaluation of all the benefits received and what is sacrificed based on the concern for the environment, the consumer's trust on the importance of the plastic bag paid for the environment will be increasing.

Green trust has positive effect on green purchasing, meaning that the higher the consumer confidence of the importance of the plastic bag paid for the environment will increase the willingness of the community to purchase plastic bags in modern retail stores.

The results show that green perceived risk has no significant effect on the meaning that consumers already have good information about the plastic bag paid and consider the product is environmentally friendly with the level of risk to damage the small environment. This condition makes the unexpected consequences that consumers want to avoid when buying and using the product (green perceived risk) of plastic bag products paying no significant effect on green trust.

The research contributions to policymakers and modern retail stores are: 1) Government as policy maker, to improve the information to the public through various media so that the public increasingly understand the dangers of using plastic and the importance of plastic bags paid as an environmentally friendly substitute products. 2) Transparent use of money from the sale of plastic bags paid for environmental rescue program, this will increase the consumer's assessment of the perceived value due to the use of a plastic bag. 3) Plastic bags paid by Alfamart, Indomart and Superindo are products that are really environmentally friendly to avoid cheating by the modern retail outlet to replace with ordinary plastic bags in order to increase profits. Violent legal action should be treated for this kind of cheating.

References

- Adji, J., & Samuel, H. (2014). Pengaruh satisfaction dan trust terhadap minat beli konsumen (purchase intention) di Starbucks The Square Surabaya. *Jurnal Manajemen Pemasaran*, 2(1), 1–10.
- Bolton, R. N., & Drew, J. H. (1991). A Multistage Model of Customers' Assessments of Service Quality and Value. *Journal of Consumer Research*, 17(4), 375–384. <http://doi.org/10.1086/208564>
- Chen, Y.-S. (2010). The Drivers of Green Brand Equity: Green Brand Image, Green Satisfaction, and Green Trust. *Journal of Business Ethics*, 93(2), 307–319. <http://doi.org/10.1007/s10551-009-0223-9>
- Chen, Y.-S., & Chang, C.-H. (2012). Enhance green purchase intentions. *Management Decision*, 50(3), 502–520. <http://doi.org/10.1108/00251741211216250>
- Doran, C. J. (2009). The Role of Personal Values in Fair Trade Consumption. *Journal of Business Ethics*, 84(4), 549–563. <http://doi.org/10.1007/s10551-008-9724-1>
- Eze, U. C., & Ndubisi, N. O. (2013). Green Buyer Behavior: Evidence from Asia Consumers. *Journal of Asian and African Studies*, 48(4), 413–426. <http://doi.org/10.1177/0021909613493602>
- Gunardi, A., Febrian, E., & Herwany, A. (2016). The implication of firm-specific characteristics on disclosure: the case of Indonesia. *International Journal of Monetary Economics and Finance*, 9(4), 379–387. <http://doi.org/10.1504/IJMEF.2016.080080>
- Irandust, M., & Bamdad, N. (2014). The role of customer's believability and attitude in green purchase intention. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 3(7), 242–248.
- Makatouni, A. (2002). What motivates consumers to buy organic food in the UK?: Results from a qualitative study. *British Food Journal*, 104(3/4/5), 345–352. <http://doi.org/10.1108/00070700210425769>
- Moisander, J. (2007). Motivational complexity of green consumerism. *International Journal of Consumer Studies*, 31(4), 404–409. <http://doi.org/10.1111/j.1470-6431.2007.00586.x>

- Padel, S., & Foster, C. (2005). Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food. *British Food Journal*, 107(8), 606–625. <http://doi.org/10.1108/00070700510611002>
- Peter, J. P., & Olson, J. C. (2010). *Consumer behavior and marketing strategy* (9th ed.). McGraw-Hill/Irwin.
- Pratama, M. A. (2014). Pengaruh green perceived value, green perceived risk dan green trust terhadap green purchase intention lampu Philips LED di Surabaya. *Calyptra: Jurnal Ilmiah Mahasiswa Universitas Surabaya*, 3(1), 1–20.
- Ramayah, T., Lee, J. W. C., & Mohamad, O. (2010). Green product purchase intention: Some insights from a developing country. *Resources, Conservation and Recycling*, 54(12), 1419–1427. <http://doi.org/10.1016/j.resconrec.2010.06.007>
- Rokhmawati, A., & Gunardi, A. (2017). Is going green good for profit? Empirical evidence from listed manufacturing firms in Indonesia. *International Journal of Energy Economics and Policy*, 7(4), 181–192.
- Seyfang, G. (2007). Growing sustainable consumption communities: The case of local organic food networks. *International Journal of Sociology and Social Policy*, 27(3/4), 120–134. <http://doi.org/10.1108/01443330710741066>
- Swastha, B., & Irawan, I. (2008). *Manajemen pemasaran modern*. Yogyakarta: Liberty.
- Tsakiridou, E., Boutsouki, C., Zotos, Y., & Mattas, K. (2008). Attitudes and behaviour towards organic products: an exploratory study. *International Journal of Retail and Distribution Management*, 36(2), 158–175. <http://doi.org/10.1108/09590550810853093>
- Vermeir, I., & Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics*, 64(3), 542–553. <http://doi.org/10.1016/j.ecolecon.2007.03.007>
- Wu, S.-I., & Chen, J.-Y. (2014). A Model of Green Consumption Behavior Constructed by the Theory of Planned Behavior. *International Journal of Marketing Studies*, 6(5), 119–132. <http://doi.org/10.5539/ijms.v6n5p119>
- Yan, X. (2013). *The research analysis of the green label's impact on the consumer purchase behavior*. Turku University.
- Young, W., Hwang, K., McDonald, S., & Oates, C. J. (2010). Sustainable consumption: green consumer behaviour when purchasing products. *Sustainable Development*, 18(1), 20–31. <http://doi.org/10.1002/sd.394>