

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



⊗ www.hrmars.com ISSN: 2222-6990

The Factors Influencing Green Purchase Intention on Green Product among Malaysian Consumers

Norraeffa Md Taib, Noorain Mohd Nordin, Zarinah Abu Yazid, Shahreena Daud, Rose Shamiza Badrul Hisham

To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v12-i6/13987

DOI:10.6007/IJARBSS/v12-i6/13987

Received: 13 April 2022, Revised: 17 May 2022, Accepted: 30 May 2022

Published Online: 07 June 2022

In-Text Citation: (Taib et al., 2022)

To Cite this Article: Taib, N. M., Nordin, N. M., Abu Yazid, Z., Daud, S., & Hisham, R. S. B. (2022). The Factors Influencing Green Purchase Intention on Green Product among Malaysian Consumers. *International Journal of Academic Research in Business and Social Sciences*. *12*(6), 473 – 482.

Copyright: © 2022 The Author(s)

Published by Human Resource Management Academic Research Society (www.hrmars.com)

This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non0-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: http://creativecommons.org/licences/by/4.0/legalcode

Vol. 12, No. 6, 2022, Pg. 473 – 482

http://hrmars.com/index.php/pages/detail/IJARBSS

JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at http://hrmars.com/index.php/pages/detail/publication-ethics



INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



⊗ www.hrmars.com ISSN: 2222-6990

The Factors Influencing Green Purchase Intention on Green Product among Malaysian Consumers

Norraeffa Md Taib, Noorain Mohd Nordin, Zarinah Abu Yazid, Shahreena Daud, Rose Shamiza Badrul Hisham

Faculty of Business and Management, Universiti Teknologi MARA, Cawangan Melaka

Abstract

Nowadays, the environment has increasingly turned into a vital issue for all people. Protecting and preserving the resources and environment existing around the world can be regarded as one of the biggest challenges most businesses and consumers are facing. Consumer behaviour changes to be more aware of the environment and interested in buying green products. Therefore, this study aims to determine the factors between environmental knowledge, environmental attitude, government initiative and eco-label that influencing the green purchase intention on green products among consumers in Malaysia. This study was quantitative in the form and questionnaires distributed to collect information from respondents based on the sample size of 145 respondents and use convenient sampling method. The data obtained through questionnaires is analyzed and evaluated by correlation and regression testing. Most of the results show low and moderate relationship on green purchase intention. Finally, limitation of study was also recognized and identified after the research is done. There are recommendations to the industry practitioner and the correspondent for future research to be conducted for better understanding in future.

Keywords: Green Purchase Intention, Green Product, Environmental Knowledge, Environmental Attitude, Government Initiative, Eco-Label.

Introduction

Environmental protection issues have been receiving the attention of society as well as many countries around the world (Ho et al., 2020). Nowadays, Asian countries become the primary target market by international marketers due to the increase of environmental awareness and the purchasing power of Asian consumers (Noor et al., 2012). Besides that, behaviour of consumers as well as industry in production and marketplace has also been changed due to the increasing awareness on environmental issues (Barber et al., 2012). However, the local and international marketers are facing difficulties in developing adequate and effective marketing strategies caused by lacking information related to the green purchase intention of the consumers in that country (Aman et al., 2012).

In Malaysia, green products are difficult to get, and they might be costly in some supermarkets. Evidence reveals that customers ignore the benefits of green products due to the difficulty in finding stores that sell them, as well as the products' comparatively high prices (Al'azmi, 2017). Therefore, marketers have begun to develop green marketing tactics to assist

Vol. 12, No. 6, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

consumers in finding environmentally friendly products and delivering product at reasonable price. This method is likely to increase consumers' desire to buy green products, since consumer will be motivated to acquire green products that are easy to find and obtain at a reasonable price. According to Latip et al (2021) a lack of consumer confidence in green products poses a problem for shoppers buying these goods. In Malaysia, majority consumers do not use green products. This situation provides an opportunity for the government, marketers, and the mass media to attempt to make people aware of the advantages of green products through promotions and campaigns (Rezai et al., 2013). This situation shows that an additional effort is required to increase the Malaysian consumers' consumption on green products. The increase in public concern and awareness regarding the environment's well-being and safety has led the consumers to consider environmental issues in their purchases and pay attention to green products has increased the demand for these products. Therefore, this study highlighted the factors influencing green purchase intention on green product among Malaysian consumers.

Literature Review

Purchase Intention on Green Product in Malaysia

Nowadays, people are more interested to buy green products due to the increase in environmental awareness. Studies performed by Cheah (2009); Chen and Chai (2010) found that there is an increase demand for green products in Malaysia. This is supported by a previous study as increased awareness will generally contribute to organic food purchase intention (Wang et al., 2019). Furthermore, Ayub et al (2018) showed that environmental consciousness is the most significant factor to influence consumer purchase intention towards organic food product in Malaysia.

Norazah and Norbayah (2019) revealed that awareness of green marketing, corporate social responsibility, product image, and corporate reputation are significantly associated with consumer purchase intentions of green products. Meanwhile, study by Abdullah et al (2020) on green skincare products among Malaysian consumer, revealed that environmental concern and attitude towards green skincare product displayed a significant effect on the intention among Malaysians to purchase green skincare products. In facts, the study indicate that purchase intention exhibited a significantly positive effects on the purchase of the green skincare.

Razmi and Harun (2019) revealed that attitude towards green purchase in Malaysia is the key determinant that influences consumers' purchase intention, followed by perceived consumer effectiveness, health consciousness, attitude toward environment and lastly social influence. While Mokan et al (2018), based on their study among Malaysian Consumer in Johor, found that knowledge, eco-label and social influences were positively significant with consumer purchase intention on green products.

Theory of Reasoned Action (TRA)

The conceptual model for this research was adopted from (Mei et al.,2012). This model was partly based on the Theory of Reasoned Action (TRA). TRA is used to argue that consumer's attitudes and subjective norms towards environment issues can influence their behavior and action towards green purchase (Fishbein and Ajzen, 1975).

Vol. 12, No. 6, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

Environmental Knowledge

According to Zsoka et al (2013), environmental knowledge is a term which is used to signify knowledge and awareness regarding environmental issues and solutions. It is also the knowledge of facts and relationships that affect the environment, which may lead to environmental concern of an individual (Maichum et al., 2016).

Past studies have demonstrated clashing outcomes regarding the impacts of environmental knowledge on green purchase intention. Mostafa (2009); Jaiswal and Kant (2018) found that environmental knowledge has a significant influence on the purchase intention of the eco-friendly product. Another research discovered that environmental knowledge and awareness has a significant direct effect on managers' green behaviour (Safari et al., 2018). In contrast, other literature showed that environmental knowledge does not significantly impact on green purchase intention (Ahamad & Ariffin, 2018). A similar study by Yogananda and Nair (2019), found that environmental knowledge had an insignificant relationship to intent to purchase green food products.

Environmental Attitude

Environmental attitude is one of the variable that should be considered in determining the intention of consumer in purchasing green product. Environmental attitude is defined as learned predisposition to respond consistently favorable or unfavorable manner with respect to the environment (Rashid, 2009).

In recent years, customers have had positive attitudes about green consumption (Xu et al.,2020, Yadav and Pathak, 2017). In order to understand the behavior of ecologically conscious consumers, environmental attitude has been identified as one of the primary and most important antecedent variable that determine subsequent purchase intention and behavioral action of green consumer (Chen and Tung, 2014, Perrea et al., 2014, Prete et al., 2017). Based on Khoiriyah (2018), health consciousness, environmental attitude and value orientation have significant and positive effect on attitude toward green product and then attitude toward green product affects the willingness to pay. Putria et al. (2014) also discovered that environmental attitude has a positive and significant effect on the willingness to buy.

In terms of green product purchasing intention, Ebru (2018) determined that, environmental concern has a meaningful impact on environmental attitude and green product purchasing intention, and environmental attitude has a meaningful impact on green product purchasing intention. Verma and Chandra (2018) found Indian consumers' environmental attitude to be most important determinant of green hotel visit intention. Meanwhile, Singh and Verma (2017) reported that Indian consumers' favorable environmental attitude has significantly positive effect on purchase intention for organic food product.

Government Initiative

Government initiative refer to initiative taken by the national government or the support given by the national government (Diekmeyer, 2008). Recently, the role of government or policy maker in encouraging people to consume green product is undeniable. The study of Tummers (2019) have highlighted how governments can influence in changing the citizen's behavior and suggest that government can employ policy instruments such as incentives, information campaigns, bans, mandates and nudges can change the individual behavior. Based on Jaiswal and Kant (2018), Indian consumers' attitude to sustainable and green

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS AND SOCIAL SCIENCES

Vol. 12, No. 6, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

products is significantly positive, driving their purchase intention; however, policy makers' intervention is required to make consumers more aware about green product.

A study has emphasized the role of external factors such as the role of government and media exposure to shape consumer's environmental attitude and product attitude (Chen et al., 2018). The study also find that the role of government has positively influenced the attitude for the green products in the belt and road countries of Asia. Similarly, Hiller Connel (2011) held the view that government policies are instrumental in predicting the environmental attitude of consumers.

Eco-label

According to Tang et al (2004), eco-label can be defined as a mean of information tool that usually utilized logo to convey information to consumers on the environment implications of buying such product.

A study by Rashid (2009) found that awareness of eco-label has a positive effect between knowledge of green product and consumer's intention to purchase. Another study by Kong et al (2014) reported that eco-label had positive significant influences on green purchase intention. The findings also revealed that eco-label and green product value made the largest contribution in influencing green purchase intention among consumers. In a more recent study, Waris and Hameed (2020), found that knowledge of eco-labels has positive influence on purchase intention of energy-efficient home appliances. In contrast, eco-label failed to show significant relationship to green purchase intention among Malaysian consumers (Mei et al., 2012).

Research Methodology

Data had collected from the sample using the validated and reliable research instrument. After the data had collected, they had analysed using correlation and multiple regression analysis. Correlation analysis was used to determine the relationship between the independent and dependent variables, while multiple linear regression analysis was used to determine the contributions of each of the significant predictors or independent variables towards the dependent variable.

Target populations of this study are Malaysian consumers who buy green product. This population is chosen because of the significant role and impact it has on buying intention towards green product that exist in the market. From this statement, 145 respondents have been chosen to represent the total population. For this research, the sampling method that will be use by researcher is convenience sampling under non-probability technique. The research instrument that has been use in this study is questionnaire. The questionnaires that have used in this research study will be classified into two sections and other several parts. First, Section A comprises the demographic background of the respondents. It consists of gender, age, race, occupation, income level and highest-level education of the respondents. Next, Section B is aimed to examine and evaluate the dependent variable and independent variable. The sources of the constructed instrument used on this research study were adopted from Mei et al (2012) for green purchase intention, environmental knowledge, environmental attitude, government initiative and eco-label. The data were analysed using the SPSS for reliability test and the Cronbach's Alpha coefficient of reliability was derived. The reliability index Cronbach's Alpha of the instrument for green purchase intention was 0.870 while for independent variables which consist of environmental knowledge (0.877), environmental attitude (0.580), government initiative (0.580) and eco-label (0.499).

Vol. 12, No. 6, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

Findings

The study identified a relationship among the factors (environmental knowledge, environmental attitude, government initiative and eco-label) with the green purchase intention. In achieving this, Pearson correlation coefficients between each pair of variables had examined. As shown in Table 1, environmental knowledge (r = 0.300) at the level of significance were positively with weak relationship with green purchase intention. While the environmental attitude (r = 0.484) and government initiative (r = 0.494) with (p = 0.000) which is less than 0.05 indicates that there was significance positively with moderate relationship. Eco-label result showed (r = 0.181) that there was significance with weak relationship. This result shown the independent variable of environmental knowledge, environmental attitude, government initiative and eco-label had significantly affected the dependent variable with the green purchase intention.

Table 1
Pearson Correlation Coefficient Environmental Knowledge, Environmental Attitude,
Government Initiative and Eco-Label

Variables	R-value	Result	
Environmental knowledge	0.300	Weak Relationship	
Environmental attitude	0.484	Moderate Relationship	
Government initiative	0.494	Moderate Relationship	
Eco-label	0.181	Weak Relationship	

As shown in Table 2, the results of regression analysis of the four independent variables which are environmental knowledge, environmental attitude, government initiative and eco-label regressed against dependent variable which is green purchase intention. Based on the table, the value for environmental knowledge is ($\beta=0.130$) with ($\rho=0.078$) and eco-label is ($\beta=0.119$) with ($\rho=0.090$) which are more than 0.05. It indicated that there was no significant relationship between environmental knowledge and eco-label with green purchase intention. While, the value for environmental attitude is ($\beta=0.267$) with ($\rho=0.003$) and government initiative is ($\beta=0.285$) with ($\rho=0.001$) which are less than 0.05. It shown that there was significant relationship between environmental attitude and government initiative with green purchase intention.

Based on Table 2, the value of R² = 0.331 that indicates that 33.1% of the variance determinants of the green purchase intention is influenced by independent variables of this study which are environmental knowledge, environmental attitude, government initiative and eco-label. Consequently, 66.9% of the variance is influenced by another variable. From this table, government initiatives were the most significant predictor variable that contribute to the green purchase intention with the value of Beta Coefficient (0.285) or 28.5% and significant at 0.000. Followed by environmental attitude with the value of Beta Coefficient (0.267), environmental knowledge (0.130) and eco-label (0.119). From this result, Malaysian consumers prefer government initiative to preserve and safe the environment, decrease the pollution towards nature and overcome global warming effect.

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS AND SOCIAL SCIENCES

Vol. 12, No. 6, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

Table 2
Regression Analysis Summary for Effectiveness Online Learning

Variables	Standardized Coefficient (β)	Sig.	R ²
(Constant)		0.000	0.331
Environmental knowledge	0.130	0.078	
Environmental attitude	0.267	0.003	
Government initiative	0.285	0.001	
Eco-label	0.119	0.090	

Conclusion

The outcomes of the current study and the previous study were discovered to be comparable and different throughout this research investigation. Various results can be the result of a variety of factors. This study has been conducted among Malaysian consumers to identify the factors that influencing green purchase intention on green products. According to the findings, environmental knowledge, environmental attitude, and government action are independent variables that have a significant association, however eco-label has no significant relationship with green purchase intention. These findings introduce new insights from the Malaysia landscape. It reconfirms that Malaysian still unaware about the present of eco-label and consumers who are unaware about green living will stay unconcerned about the environment. Despite of that, the government's initiative in acquiring green items has a highest correlation value. It serves a critical role in protecting our planet from environmental problems. Customers' green trust in businesses must be improved. Consumers will only trust green products if the products are truly beneficial in their daily lives. Then, the companies can hire an endorser or celebrity as a spokesperson in persuading others to raise awareness of green purchase intention can be nurtured. With these results, it is reasonable to suggest the government to do more to promote a green and healthy lifestyle through social media and advertising campaigns. To this end, It will also assist consumers in developing a good attitude toward green products to preserve the global environment for future generations.

Acknowledgement

The author would like to thank the Universiti Teknologi MARA Cawangan Melaka and coauthors that have helped in conducting and completing this research.

Corresponding Author

Norraeffa Md Taib

Universiti Teknologi MARA, Cawangan Melaka, Malaysia

Email: norraeffa@uitm.edu.my

References

Abdullah, A. M., Noorshella, C. N., Naeem, H., & Noor, R. Z. (2020). Predicting the Purchase Intention and Behaviour towards Green Skincare Products among Malaysian Consumers. Sustainability, Vol 12 (24),1-18.

Ahamad, N. R., & Ariffin, M. (2018). Assessment of knowledge, attitude and practice towards sustainable consumption among university students in Selangor, Malaysia. *Sustainable Production and Consumption*, 16, 88-98.

- Al'azmi, M. A. H. B. (2017) Faktor Yang Mempengaruhi Niat Pembelian Produk Hijau Dalam Kalangan Pengguna Di Lembah Klang Malaysia. Available online: http://psasir.upm.edu.my/id/eprint/76145/1/FPAS%202018%2025%20-%20IR.pdf
- Aman, A. H. L., Harun, A., & Hussein, Z. (2012). The influence of environmental knowledge and concern on green purchase intention the role of attitude as a mediating variable. *British Journal of Art and Social Sciences*, 7 (2), 145 167.
- Ayub, H. A., Naziman, N. M., Hayati, Y., & Faizal, M. (2018). Factors influencing young consumers' purchase intention of organic food product. *Advances in Business Research International Journal (ABRIJ)*. 4(1). 17-26.
- Barber, N., Kuo, P. F., Bishop, M., & Goodman, R. (2012). Measuring psychographics to assess purchase intention and willingness to pay. *Journal of Consumer Marketing*, 29 (4), 280 292.
- Cheah, C. M. (2009). A study on consumers green purchasing intention. Master Thesis. Malaysia: College of Business, University Utara Malaysia.
- Chen, C. C., Chen, C. W., Tung, Y. C. (2018). Exploring the consumer behavior of intention to purchase Green products in Belt and Road Countries: An empirical analysis. Sustainability, 10,854.
- Chen, T. B., & Chai, L. T. (2010). Attitude towards the environment and green products: Consumers Perspective. *Management Science and Engineering*, 4, 27-39.
- Diekmeyer, P. (2008). Bribery in public procurement: protecting your company from corruption.
- Onurlubas, E. (2018). The Mediating Role of Environmental Attitude on the Impact of Environmental Concern on Green Product Purchasing Intention. *Emerging Market Journal*, Vol 8(2).
- Hameed, I., & Waris, I. (2018). Eco-labels and Eco-conscious consumer behavior: the mediating role of green trust and environmental concern. *Journal of Management Sciences*, *5*(2), 86-105.
- Connel, H. K. Y. (2011). Exploring consumers' perceptions of eco-conscious apparel acquisition Behaviors. *Social Responsibility Journal*, 7, 61-73.
- Ho, T. N., Bui, A. T., Nguyen, V. D., Dao, T. K., & Nguyen, N. D. (2020). Analyzing the impact of FDI and urbanization on CO2 emission in Vietnam. *International Journal of Business and Globalisation*, 12, 1–19.
- Jaiswal, D., & Kant, R. (2018). Green purchasing behaviour: a conceptual framework and empirical investigation of Indian consumers. *Journal of Retailing and Consumer Services*, 41, 60-69.
- Khoiriyah S. (2018), Attitude toward green product, willingness to pay and intention to purchase. *International Journal of Business and Society*, vol.19, 620-628.
- Kong, W., Harun, A., Sulong, R. S., & Lily, J. (2014). The influence of consumers' perception of green products on green purchase intention. *International Journal of Asian Social Science*, 4(8), 924-939.
- Latip, M. S., Newaz, F. T., Latip, S. N., May, R. Y., Rahman, A. E. (2021) The Sustainable Purchase Intention in a New Normal of COVID-19: An Empirical Study in Malaysia. *J. Asian Finance. Econ. Bus*, *8*, 951–959.
- Chen, M., & Tung, P. (2014). Developing an extended Theory of Planned behavior model to predict Consumers' intention to visit green hotels. *International Journal Hospitality Management*, 36, 221-230

- Maichum, K., Parichatnon, S., & Peng, K. C. (2016). Application of the extended Theory of Planned Behavior Model to investigate purchase intention of green products among Thai consumers. *Sustainability*, 8(1077), 1-20.
- Mei, O. J., Ling, K. C., & Piew, T. H. (2012). The antecedents of green purchase intention among Malaysian consumers. *Asian Social Science*, 8(13), 248-263.
- Noor, M. N. A., Mat, N., Mat, N., Jamaluddin, C. Z., Salleh, H. S., & Muhammad, A. (2012). Emerging green product buyers in Malaysia: Their profiles and behaviours.
- Mokan K. V., Lee, T. C., & Bhoyar, M. R. (2018). The Intention of green products purchasing among Malaysian Consumers: A case study of Batu Pahat, Johor. *Indian Journal of Public Health Research & Development*, Vol.9, No. 10
- Mostafa, M. M. (2009). Shades of green: a psychographic segmentation of the green consumer in Kuwait using self-organizing maps. *Expert Systems with Applications*, *36*(8), 11030-11038.
- Norazah, M. S., & Norbayah, M. S. (2019). Correlations Between Awareness of Green Marketing, Corporate Social Responsibility, Product Image, Corporate Reputation, and Consumer Purchase Intention. *IGI Global Publisher of Timely Knowledge*, page 12.
- Putria D. S. A., Abidin, Z. A. (2014). The Effects of Green Products, Environmental Attitudes and Social Media Marketing on Willingness to Buy (Empirical Study on Stainless Steel Straws in Balikpapan). *Asia Pacific Journal Market*. Logist., 26(2) 296-314.
- Rashid, N. A. (2009). Awareness of eco-label in Malaysia's green marketing initiative. International *Journal of Business and Management*, 4(8),10
- Razmi, M. H., & Harun, R. (2019). Consumers' Intention to Purchase Green Products in Malacca, Malaysia. *MAEH Journal of Environmental Health*, 1(1), 44-49.
- Rezai, G., Teng, P. K., Mohamed, Z., Shamsudin, M. N. (2013) Going green: Survey of perceptions and intentions among Malaysian consumers. *Int. Bus. Manag*, *6*, 104–112.
- Rotherham, T. (1999). Selling Sustainable Development: Environmental Labeling and Certification Programs. University of Miami. Retrieved from: www.iisd.org/standards/pdf/miami paper final.pdf
- Safari, A., Salehzadeh, R., Panahi, R., & Abolghasemian, S. (2018). Multiple pathways linking environmental knowledge and awareness to employees' green behavior. *Corporate Governance*, 18(1), 81-103. https://doi.org/10.1108/CG-08-2016-0168
- Tang, E., Fryxell, G. E., and Chow, C. S. F. (2004). Visual and verbal communication in the design of eco-label for green consumer products. Journal of International Consumer Marketing. 16(4). 85-105. DOI 10.1300/J046v16n04_05.
- Tummers. (2019). Public policy and behavior change. *Public Administration Review*. 79, 925-930.
- Verma, V. K., Chandra, B. (2018). An application of theory of planned behavior to predict young Indian Consumers' green hotel visit intention. *J. Clean. Prod.*, 172, 1552-1162.
- Verma & Singh. (2017). Factors influencing Indian consumers' actual behavior toward organic food Products. *J. Clean. Prod.*, 167, 473-483.
- Wang, X., Pacho, F., Liu, J., & Kajungiro, R. (2019). Factors influencing organic food purchase intention In Tanzania and Kenya and the moderating role of knowledge. Sustainability (Switzerland), 11(209),1-18.
- Waris, I., & Hameed, I. (2020). An empirical study of purchase intention of energy-efficient home appliances: the influence of knowledge of eco-labels and psychographic variables. *International Journal of Energy Sector Management, 14*(6), 1297-1314.

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS AND SOCIAL SCIENCES

Vol. 12, No. 6, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

- Xu, X., Wang, S., & Yu., (2020). Consumer's intention to purchase green furniture: Do health consciousness and environmental awareness matter? *Science of the Total Environment*, 704.
- Yadav, R., & Pathak, G. S. (2017). Determinants of Consumers' Green Purchase Behavior in a Developing Nation: Applying and Extending the Theory of Planned Behavior. *Ecological Economics*, 134, 144-122.
- Yogananda, A. P., & Nair, P. B. (2019). Green food product purchase intention: Factors influencing Malaysian consumers. *Pertanika Journals of Social Science & Humanities*, 27(2), 1131-1144.
- Zsoka, A., Szerenyi, Z., Szechy, A., & Kocsis, T. (2013). Greening due to environmental education? Environmental knowledge, attitudes, consumer behaviour and everyday pro-environmental activities of Hungarian high school and university students. *Journal of Cleaner Production*, 48, 126-138.