Implications of automotive product sustainability on young customers’ purchase intention in developing countries: an experimental approach

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Abstract. Manufacturing of sustainable products is on a high demand in order to attain a global responsible consumption and production pattern. Among the emerging efforts of various manufacturing companies, production of sustainable vehicles takes a special attention due to its massive impacts to the world’s sustainability dimensions. Meanwhile, youngsters in developing countries are interesting prospective customers for automotive products because their mysterious characteristics and potential to contribute to the future sustainability. The research investigated the connectivities between automotive products sustainable designs and young customers purchase intention in Indonesia, using an experimental workshop. Empirical results have shown that each dimension has a significant effect to the youngsters’ preferences, although with different levels.

Keywords: purchase intention, sustainable products, automotive, customer behaviour

1. Introduction
Since the responsible consumption and production pattern has become one of the pillars for a global sustainability, sustainable product development has been a concern for manufacturing industries in recent years [1,2]. Therefore, paradigm in product development area has shifted to a direction with more environmental and social considerations in developing new products, which subsequently are mentioned as sustainable products. Several methods to design these sustainable products have been proposed and have led to the creation of new products in many aspects of human life [3-5]. Among these aspects, transportation vehicles one of the most common example where sustainability concept has been widely implemented due to its significant impact to the environment and society [6-9].

As the sustainable vehicles are proliferating in markets around the world, responses obtained in different countries may vary. The most significant gap can be seen in developed countries and developing countries, due to disparities found in the customer behaviour [10]. These disparities may come from different level of education and prosperity, so that the awareness level of sustainability also differs. Regarding the size of markets in developing countries is unneglectable [11], it is crucial to develop more understanding about correlations between customers’ behavior and sustainable automotive products in developing countries to develop further strategies directing to the global sustainability.

Furthermore, we agree that strategic policies of related industries should be made based on observations through young people in age 18 – 30 [12-13]. As one of the reasons, young customers buying intention toward sustainable products reflects the opportunity of sustainable living style in the
future [14-15]. We have seen how these young people give great influence in consumption pattern during these years, and this millennial behavior is still moving extremely fast, sometimes to unpredictable directions. Further, regarding the millennials as potential market for automotive products in the future, it is essential for the designers to pay attention on what attracting them to purchase sustainable cars or motorcycles. By taking the triple bottom line (TBL) as the dimensions of sustainability [16], it is interesting to find whether the environmental concern, the social impact, or economic reasons affect the young customers most in taking the purchase decision. Therefore this study focuses on discussion about how young customers in a developing country (Indonesia as a case study) respond to products’ sustainability dimensions (TBL) in a manner of purchase intention. The results can provide useful resources for the designers and other interested scholars to understand young customer behavior in designing sustainable products for developing countries with similar characteristics.

2. Literature Review

2.1. Automotive Product Sustainability

Sustainability in one product is assessed through all its life cycle, considering several category / dimension of sustainability. These dimensions are subsequently divided into criteria reflecting more specific condition (table 1). Since this research discusses sustainability in customer’s perspective, criteria discussed in this research are limited to those only with direct benefits to the customer.

| Category          | Criteria                                      | Criteria’s code | References |
|-------------------|-----------------------------------------------|-----------------|------------|
| Environmental      | Global warming and ozone depletion            | E1              | [6,17,18]  |
| Impact            | Toxicity and pollution to the environment     | E2              | [6,17,18]  |
|                   | Scarcity of resources                         | E3              | [6,17,18]  |
| Social Impact      | User’s Health                                 | S1              | [6,17,18]  |
|                   | User’s Safety                                 | S2              | [6,17,18]  |
|                   | User’s Comfort (vibration, noise)             | S3              | [6,17]     |
|                   | User’s Mobility (performance and durability)  | S4              | [6,17,18]  |
| Economic Impact   | Operating Cost                                | M1              | [6,17,18]  |
|                   | Maintenance Cost                              | M2              | [6,17,18]  |
|                   | Used product value                            | M3              | [17,18]    |

References about vehicle sustainability assessment methods are not many, however several studies have been accomplished to develop the methods. Each methods present different criteria, although having similarities. Ungureanu [6] proposed a framework consisting six category, constituting triple bottom line with functionality, manufacturability and recyclability as additional points. Functionality had many similar functions with social criteria, while manufacturability and recyclability sub criteria can be categorized in environment criteria. Shuaib et al [18] still used TBL in his method, which can be used for general products, to score the product’s sustainability index. Salvado [7] also used TBL in his work, generating sustainability index using analytic hierarchy process. Meanwhile, Jasinski [17] argue resource impact as another criteria inspite of TBL, because automotive products are recognized as one of the most resource-consuming products used by the society. However, it is assumed from the
customers’ point of view, resource consumption also means environmental sake. For practical reasons, criteria used in this discussion uses basic TBL in product operating phase.

2.2. Product Sustainability and Consumers’ Purchase Intention
Purchase intention of customers is a measuring value for predicting future sales of a certain product, although it is not the only factor to be considered in marketing [19]. Researches related to the field are enormous with different aims and approaches, and those which relates to product sustainability are sufficiently provided as well. Understanding customer purchase intention is a crucial part of planning future sustainability, because achieving sustainable consumption pattern also partially means selling sustainable products to as many customers as possible around the world.

The problem is, although the sustainable products sales trend recently shows an inclination [20-21], its percentage among other conventional products trend is still low. Customer’s reluctancy mostly comes from unawareness, lack of information and poor habits toward sustainability (Tang 2008). However, by increasing customer’s perceived value of the product and knowledge about related risks, customer’s purchase intention is aimed to be higher [22]. While knowledge is wished to be obtained by education and advertisements, products’ perceived value should be build integrated in the product design [23]. Incorporating sustainability dimensions in a product requires a comprehensive design method, which is limited by several boundaries including technology availability, customer behaviour considerations, ruling policies and the effects of the design to sustainability dimensions. Though the process is surely more complex and more cost demanding than the old conventional product design methods, applying these sustainable methods is a necessity to attain excellence in nowadays competitive markets [24].

Correlations between product sustainability dimensions and customer’s purchase intention has been investigated in prior studies, and some of them are given here. Chen [25] investigated whether an eco-motorcycle design affect consumers’ purchase intentions in Taiwan. The research has proven that customer’s knowledge holds significant role in increasing purchase intention. Toppinen [26] found that consumer’s preferences to sustainable wood products in Finnish should be divided into dimensions: environment and social. Park [27] has proposed a concept using the TBL framework to conceive customer’s perception in fashion industry.

Many studies have been conducted in developed countries, while consumers in developing countries are recognized having different characteristics than those who live in developed countries [28]. A few samples of studies conducted in developing countries related to the discussion are mentioned here. Handriana [29] examine three groups constituting professionals, housewives and young people in Indonesia as a developing country. All groups showed positive response to green products, even each has different level of familiarity. Interesting participants in this research were the young people, which represented potential of future sustainability in developing countries. They seem to have more interest in global issues. For instance, in comparison to housewives, young people are more familiar and having higher buying intention to green products. However, Shamsi [30] found that the customer’s educational backgrounds is the most significant aspect in determining the response to green products. It is affected by the amount of information gained by the prospective customers, and how this information interact with the customer’s knowledge related to sustainability.

3. Methods
3.1. Hypotheses Development
Ghazali et al [31] investigated cultural influences on green product preferences in Indonesia. Among the cultural traits presented, authors found the salient factors influencing the market are uncertainty avoidance and long-term orientation. Further, it can be concluded from the discussion that the society has pragmatical point of view about green products, referring to money savings oriented. This is supported by Lim [32] who revealed that economic incentive has significant influence in Malaysian antecedents’ purchase intention, while the environmental issue does not. Chen [33] found that perceived monetary value could highly seduce consumers to buy green products, but environmental awareness was also considered by consumers in purchase decision making. However, this pragmatical
In prior researches, it has been found that young consumers in Malaysia prefer to consider social dimension (health and safety) in comparison to affordability. From another study, Kowang [35] stated functionality of vehicles influences youths’ purchase intention significantly in Malaysia, reflecting the youngsters have high preferences to the engine performance and the vehicles durability. It shows that youngsters relatively have attention to social dimension sustainability like health, safety and products functionality. This behavior is easily understood as consumers’ basic consideration in buying products, also applied for older community. For instance, in certain types of product, health concern engaged with sustainability issue, got the highest attention from prospective customers in an online market website [36]. While Hung [37] found that vehicle safety awareness among consumers is very high more than economic reasons, which can influence their buying intention to the related products. These findings might lead to a hypotheses that social dimension would be the top reason for young customers to buy green vehicles. While economic dimension might be the less consideration, since the respondents in the proposed workshop would be assumed financially adequate to buy the variant models.

Meanwhile, environmental impact consideration is still unfamiliar for several market segments, the youngsters have recognized the issue quite well [24]. This is because young customers are widely opened to new information and affected easily by media [38]. For these millennials, getting a comprehensive understanding about environmental issues is not a difficult thing to do since there are many advertisings related to environmental issues in media recently. In prior researches, it has been clarified that a better level of knowledge is considered to increase the purchase intention on eco products among young customers [30]. In addition, Setyawan [39] found that even though currently for most Indonesian adolescents environmental issues have not been a main topic in their mind, their purchase intention to green products might increase significantly by applying adequate information delivery. These findings are similar with Zhang’s research [14] in China with green houses as the purchasing objects. He acclaimed that young customers in China are willing to buy green houses as long as they get sufficient explanation about urgency of the green products. According to these findings, the following hypotheses are proposed.

**H1**: Social dimension of sustainability has a significant impact to young customers purchase intention and it has higher impact in comparison to other dimensions.

**H2**: Environmental dimension of sustainability has a significant impact to young customers’ purchase intention which is lower than the social dimension, but higher than economic dimension.

**H3**: Economic dimension of sustainability has significant impacts to young customer’s purchase intention, but has the lowest influence compared to other dimensions.

### 3.2. Workshop as an Experimental Tool

Relation between sustainable features in automotive product and customers’ purchase intention should be examined by eliminating influences from other factors outside the variables such as brand loyalty, pricing, etc. For this research, it is decided to enroll experimental research, in form of a workshop. Experimental method have been used widely in measuring consumer’s behavior to sustainable products in various way. Some of them measured the customer’s willingness to pay [40-41]. The method is acclaimed to decrease the bias possibility due to the preliminary treatments to the participants because it consists explanation session from the researchers. In this case, there are two main subjects to be described to the respondents at the beginning of the workshop, which are a brief explanation of sustainability concept and the characteristics of the product models used in the research.

As the experiment object, motorcycle variants were chosen as the product models to be presented in the workshop due to their wide usage among youngsters in Indonesia. Three imaginary motorcycles with different characteristics were developed to be explained to the respondents in a certain sequence (table 2), then the respondents were asked to fill questionnaires related to the products (Q1) and their intention to buy them (Q2). There are 10 questions in each questionnaire constituting the sustainability criteria as listed in table 1. Likert scale 1 to 5 was used to analyze whether the respondents are strongly agree, agree, normal, disagree or strongly disagree with the statements.
Each motorcycle variant represents excellence in environmental, social and economic dimension respectively, so that the respondents’ purchase intention to each variant should depict the respondents’ preferences to sustainability dimensions. Other factors which might effect the respondents decision, such as the bike shape, brand, price, colors, are set to be flexible according to the respondents’ taste.

| Criteria’s  | Performance Defined | Criteria’s  | Performance Defined | Criteria’s  | Performance Defined |
|------------|---------------------|------------|---------------------|------------|---------------------|
| Variant 1  |                      | Variant 2  |                      | Variant 3  |                      |
| E1         | Excellent           | E1         | Poor                | E1         | Poor                |
| E2         | Excellent           | E2         | Poor                | E2         | Poor                |
| E3         | Excellent           | E3         | Poor                | E3         | Poor                |
| S1         | Poor                | S1         | Excellent           | S1         | Poor                |
| S2         | Poor                | S2         | Excellent           | S2         | Poor                |
| S3         | Poor                | S3         | Excellent           | S3         | Poor                |
| S4         | Poor                | S4         | Excellent           | S4         | Poor                |
| M1         | Poor                | M1         | Poor                | M1         | Excellent           |
| M2         | Poor                | M2         | Poor                | M2         | Excellent           |
| M3         | Poor                | M3         | Poor                | M3         | Excellent           |

During the workshop, respondents should be grouped into classes, where each class should contain at least 30 respondents for the sake of measurement validity. These classes are required to avoid the testing factor where a certain sequence in explaining things in a workshop might have effects to the respondents’ responses. In avoiding such a phenomena, in each class the products explanation sequences would be set differently. Figure 1 is presented as a model to understand how the workshop would be conducted.

![Figure 1. The Experimental Workshop Model](image_url)

Workshops in these classes were conducted simultaneously with the same materials and questionnaires, only with different respondents and sequence of product explanation. Since Q1 and Q2
questionnaire each contains 10 questions, thus totally there are 303 respondents’ responses for the three variant models. These data subsequently are analyzed by using statistical tools to reveal the respondents purchase intention to each variants.

4. Results and Discussions

The experimental workshop has been conducted in August 2019, where 101 respondents were involved. The profiles of the respondents are given in table 3.

Table 3. Respondents Profiles

| Respondents Profiles | Freq | %   |
|----------------------|------|-----|
| Gender               |      |     |
| Male                 | 59   | 58.4|
| Female               | 42   | 41.6|
| Education Level      |      |     |
| High School          | 42   | 41.6|
| Bachelor             | 45   | 44.5|
| Master               | 14   | 13.9|
| Age                  |      |     |
| 18 – 21              | 51   | 50.4|
| 22 – 26              | 40   | 39.6|
| 27 – 30              | 10   | 10  |

An experimental work requires less respondents in comparison to a full survey work. It has relatively stronger internal validity, though it suffers weaker external validity [35]. KMO and Bartlett’s tests have been implemented to the data and have confirmed that the measuring instrument has fulfilled the threshold level (KMO > 0.5; all factor loadings > 0.5; Bartlett’s should be significant with p < 0.05). In addition, by analyzing communalities and factor loadings, it is described that each dimension of TBL has specific significant effect to the customer purchase intention. Therefore for each dimension’ the cronbach’s alpha has been counted and validated above the required level (Cronbach’s alpha > 0.7). The results are given in table 4.

Table 4. Validity and Reliability Tests Results

| Measurements                  | Kaiser-Meyer-Olkin sampling adequacy tes | Bartlett’s Test of Sphericity |
|-------------------------------|------------------------------------------|-------------------------------|
|                               | 0.793                                    | Approx Chi Square             |
|                               |                                          | 3129.217                      |
|                               |                                          | Df                            |
|                               |                                          | 45                            |
|                               |                                          | Sig                           |
|                               |                                          | 0.000                         |
| Cronbach’s alpha (environmental dimension) | 0.919                                   |                               |
| Cronbach’s alpha (social dimension) | 0.970                                   |                               |
| Cronbach’s alpha (economic dimension) | 0.896                                   |                               |

Once the validity and the reliability of the instruments has been validated, it is essential to ensure that the respondents’ perception to the presented products is correct. Questionnaire Q1 has been
provided for this intention, then a manipulation check using T-test, means value and significancy has been enrolled to reveal the perception. As the result, most of respondents clearly understand the characteristics and the excellences of each variant. For examples, the respondents confirmed that variant 1 is the best for its environmental dimension characteristics while the variant 2 has the best performance in social dimension, and so on. All data have significancy below 0.05, so it is considered that the respondents’ perception is sufficient. It is assumed that the experimental workshop method is an appropriate approach to reveal young customers behavior due to its ability to clarify the problems to the audience at the beginning of the workshop. Thus the measurement of their purchase intention should be more valid under this condition, as on Table 5.

Subsequently, the respondents’ profiles should be examined whether these factors affect the purchase intention or not. There are three classifications in the profiles which should be noticed: age, education level and gender. Using crosstabulations and chi square tests for the 3 classifications versus the 3 variants, data in table 5 has been collected. It shows that none of these classification has a noticeable effect to the respondents’ purchase intention, because it requires value under 0.05 for the asymptotic significance to be considered as significant. While other studies proposed that difference in education background should affect customers preferences, it is assumed that a brief good explanation as conducted in the workshop could eliminate this knowledge limitation among the respondents [33, 40-41].

The connectivities between the product sustainability dimensions to the young customers’ purchase intention has been investigated on data collected through questionnaire Q2, using univariate analysis of variance. By using between-subject tests and multiple comparisons based on Tukey HSD and Bonferroni methods, the results clarify that all sustainability dimensions have specific effects to the
customers’ purchase intention, although with different level. It is shown by the significance value, with all value are below 0.05. This result should be a good sign that sustainable motorcycles might have better responses from Indonesian customers in the future.

Furthermore, the analysis from homogenous subset reveals that the social dimension has the highest implication on the purchase intention, followed by the environmental and economic dimension respectively. The results fulfill the hypotheses, where the young customers do not focus on financial benefits from the products, but they prefer to satisfy their personal needs first and contribute to the environmental issues instead. Overall, the sustainability dimensions in the automotive product models have affected the young customers’ purchase intention by 61% compared to other reasons. This result validates the hypotheses described in previous section (table 6).

5. Conclusion
An investigation to young customers’ purchase intention to sustainable vehicles has been conducted using an experimental workshop in Indonesia. Three motorcycle models with specific characteristics have been used to test the preferences of 101 respondents. As the result, it can be seen that young customers in Indonesia have main interests on social dimension criteria in purchasing a motorcycle, constituting health, safety, comfort and product functionality considerations. Oppositely, these young customers put economic dimension, including used product value, operational and maintenance cost as the lowest consideration. One can argue that the condition is caused by the assumption made at the beginning of the workshop, where the respondents were assumed financially adequate. Thus the respondents’ preference may differ in the real life condition, when facing economical boundaries. On the other side, environmental dimension considerations may have a good opportunity to be highly considered by customers in the future, regarding good education and advertisements about the urgency of taking care of the nature. Even in developing countries, environmental issue shall be a good added value for products to attract more customers, because the awareness of sustainability among youngsters have been existed.

Acknowledgments
This research is funded by DIPA Faculty of Engineering University of Lampung, Indonesia. Authors thank all related parties contributing to the research, especially to Zaky Abyan Farhain as the authors’ research assistant in conducting the workshop.

References
[1] Myklebust O 2006 Sustainable Industrial System Intelligent Strategies in Product Design, Manufacturing and Management (207): 637 – 642
[2] Clark G, Kosoris J, Hong L N, Crul M 2009 Design for Sustainability: Current Trends in Sustainable Products Design and Development Journal of Sustainability I: 409 – 424
[3] Vinodh S, Rathod G, 2010 Integration of ECQFD and LCA for Sustainable Product Design, Journal of Cleaner Production 18:833 – 842
[4] Hassan M F, 2011 Methodology for Sustainable Product Design: A Review and Direction of Research International Conference on Mechanical and Manufacturing Engineering Malaysia
[5] Kobayashi H, 2015 Perspectives on Sustainable Product Design Methodology Focused on Local Communities Proceedings of EcoDesign International Symposium
[6] Ungureanu C A, Jawahir I S, Das S 2007 Development of a Sustainability Scoring Method for Manufactured Automotive Products: A Case Study of Auto Body Panels Proceedings of IMECE USA
[7] Salvado M F, Azevedo S G, Matias J C O, Ferreira L M 2015 Proposal of a Sustainability Index for the Automotive Industry Journal of Sustainability (7): 2113 – 2144
[8] Drohomeretskii E, da Costa S E G, de Lima E P, Neves T R O 2015 The Application of Sustainable Practices and Performance Measures in the Automotive Industry: a Systematic Literature Review Engineering Management Journal (27)1: 32 – 44
[9] Vaz C R, Rauen T R S, Lezana A G R 2017 Sustainability and Innovation in the Automotive Sector: a Structured Content Analysis *Journal of Sustainability* 9

[10] Tamura T, Kobayashi H, Umeda Y 2016 Requirements for Design Methodology for Local Oriented Manufacturing in Developing Countries *Procedia CIRP* 40: 431-436

[11] OECD 2012 Green Growth and Developing Countries – A Summary for Policy Makers

[12] Naderi I, Steenburg E V 2018 Me First, and then The Environment: Young Millennials as Green Consumers *Business Faculty Publications Fairfield University*

[13] Palupi T, Sawitri D R 2018 The Importance of Pro-Environmental Behavior in Adolescent *EDP Sciences*

[14] Zhang L, Chen L, Wu Z, Zhang S, Song H 2018 Investigating Young Consumers’ Purchasing Intention of Green Housing in China *Journal of Sustainability* 10

[15] Zahid W, Dastane O 2016 Factors Affecting Purchase Intention of South East Asian Young Adults towards Global Smartphone Brands *ASEAN Marketing Journal (8)1*: 66 – 84

[16] Ellkington J, 1999 Cannibal with Forks: Triple Bottom Line of 21st Century Business *Capstone*

[17] Jasinski D, Kirwan K, Meredith J 2016 A Comprehensive Framework for Automotive Sustainability Assessment *Journal of Cleaner Production* (135): 1034 – 1044

[18] Shuaib M, Severs D, Zhang X, Badurdeen F, Rouch K E, Jawahir I S 2014 Product Sustainability Index (ProdSi) *Journal of Industrial Ecology* (18)4: 491 – 507

[19] Morwitz V 2012 Consumers’ Purchase Intentions and their Behavior *Foundations and Trends in Marketing* (7) 3: 181-230

[20] Srivastava M, Malik K, Kumar R 2016 Consumers’ Readiness for Green Products and Its Effect on Sustainable Development *Amity Journal of Marketing. ADMAA* 1(1): 93 – 104

[21] Kim H, Lee C W 2018 The Effect of Customer Perception and Participation in Sustainable Supply Chain Management: A Smart Phone Industry Study *Journal of Sustainability. MDPI* 20

[22] Chen H C, Lin M H 2018 A Study on The Correlation Among Product Design, Statistics Education, and Purchase Intention – A Case of Toy Industry *EURASIA Journal of Math. Science and Technology Education*. 14(4): 1189 – 1195

[23] Yen H Y, Lin P H, Lin R 2014 Emotional Product Design and Perceived Brand Emotion *International Journal of Advances in Psychology (IJPAP)* 3(2): 59-66

[24] Seuring S 2010 Supply Chain Management for Sustainable Products *Business Strategy and The Environment*: 471 – 484

[25] Chen H S, Tsai B K, Hsieh C M, 2017 Determinants of Consumers’ Purchasing Intentions for the Hydrogen-Electric Motorcycle. *J. Sustainability* 9

[26] Toppinen A, Toivonen R, Valkeapaa A, Ramo A K 2015 Consumers Perception of Environmental and Social Sustainability of Wood Products in the Finnish Market *Scandinavian Journal of Forest Research* 28(8): 775-783.

[27] Park H, Kim Y K 2016 An Empirical Test of The Triple Bottom Line of Customer-Centric Sustainability: The Case of Fast Fashion *Fashion and Textiles (3)25*

[28] Kobayashi H, Fukusige S 2018, A Living-Sphere Approach for Locally Oriented Sustainable Design, *Jnl Remanufactur*

[29] Handriana T, 2016 Mapping of Green Buying Perception in Developing Country *Mediterranean Journal of Social Sciences. MCSER Publishing Italy* (7)3: 19 – 30

[30] Shamsi M S, Siddiqui Z S 2017 Green Product and Consumer Behavior: An Analytical Study *Journal of Pertanika. Universiti Putra Malaysia Press*

[31] Ghazali I, Rashid S H A, Dawal S Z M, Tontowi A E, Aoyama H, Ghazilla R A R 2018 Green Product Preferences with Respect to Cultural Influences: Empirical Study in Indonesia *Int. J. Of Automation Technology* (12)6: 842 – 852

[32] Lim Y J, Perumal S, Ahmad N 2019 The Antecedents of Green Car Purchase Intention Among Malaysian Consumers *European Journal of Business and Management Research* (4)2

[33] 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 *J. Sustainability* 10
[34] Lian S B, Yoong L C 2019 Assessing the Young Consumers’ Motives and Purchase Behavior for Organic Food: An Empirical Evidence from A Developing Nation *International Journal of Academic Research in Business and Social Sciences* (9): 69 – 87

[35] Kowang T O, Samsudin S A, Yew L K, Hee O C, Fei G C, Long C S 2018 Factors Affecting Car Purchase Intenton Among Undergraduates in Malaysia *International Journal of Academic Research in Business and Social Sciences* 8(8): 80 – 88

[36] O’Rourke D, Ringer A 2015 The Impact of Sustainability Information on Consumer Decision Making *J. of Industrial Ecology*

[37] Hung N J, Yazdanifard R 2015 The Study of Vehicle Safety Aspects Influencing Malaysian Urban Consumer Car Purchasing Behavior *International Journal of Management Accounting and Economics* (2): 913 – 924

[38] Artsanti R, Soemarno, Yanuwiardi B, Djati M S 2018 Millenial’s Preferences on Triple Bottom Line: Effect of The Corporate Social and Environmental Publicity on The Reputation, Attitude, and Intention to Work at a Company *Research on Humanities and Social Sciences* (8)18

[39] Setyawan A, Noermijati N, Soenaryo S, Aisjah S 2018 Green Product Buying Intentions Among Young Consumers: Extending The Application of Theory of Planned Behavior *Problems and Perspectives in Management* (16): 145 – 154

[40] Michaud C, Llerena D 2010 Green Consumer Behavior: An Experimental Analysis of Willingness to Pay for Remanufactured Products *Business Strategy and The Environment* Wiley Online Library

[41] Cagalj M, Haas R, Morawetz U B 2016 Effects of Quality Claims on Willingness to Pay for Organic Foods *British Food Journal* 118 (9)