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This research analyzed the influence of non-demographic factors to Indonesian consumers’ attitude towards green products. Furthermore, this research also investigated the relationship between consumers’ attitude and the intention to purchase green products. This research used questionnaire data from 350 respondents selected by judgemental sampling. Data was analyzed using regression method. The research found that only five out of six non-demographic factors tested were proven to influence the Indonesian consumers’ attitude towards green products. Based on their magnitude of influence, the five factors are altruism, perceived consumer effectiveness, collectivism, perceived benefit, and environmental knowledge. Meanwhile, the interpersonal influence, another factor tested, was not proven to affect the consumers’ attitude towards green products. Consumers’ attitude towards green products also influence consumers’ intention to purchase those products.

Keywords: green products, purchase intention, non-demographic factors

INTRODUCTION

Environmental issues have gained great attention from business as well as in public life throughout the world; even have become part of global problems (Gurusamy et al, 2013). Environmental damage have brought a long-term impact that is able to disturb the viability of the society and the next generation (Anand, 2013). In addition to the impact on public health, environmental damage also causes economic loss. Due to significant impacts of the environmental issues, immediate solutions is required. Besides the government, the business sector is also expected to participate in finding solutions for environmental issues (Bonini et al, 2008; Sharma et al, 2013). One of the contributions from business sector to solve environmental issues is the green marketing concept. Green marketing is defined as all activities designed to provide and facilitate the fulfillment of consumers’ needs or wants with minimum environmental damage (Polonsky, 1994).

The green marketing concept can be implemented through various ways, one of which is green products development. Green products are defined as products made by environmentally friendly technology so that the adverse impacts on the environment are minimum (Gurusamy et al, 2013). Currently, green products have been available at the market, but the consumption rate is still low (Bonini and Oppenheim, 2008). The trend is certainly contrast to the increasing of consumer awareness towards environmental. This is also supported by the find-
ing from the research that is done by Kalafatis (1999) and Gardyn (2003). In their research, Kalafatis (1999) and Gardyn (2003) found that consumers with good environmental awareness were not necessarily having intention to purchase green products. Therefore, researches to find the factors that influence purchase intention of green products are important.

At the early period, many researches investigated the influence of socio-demographic factors to purchase intention of green products. However, those researches provided inconsistent results so that the use of socio-demographic factors was deemed less relevant (Diamantopoulos, 2003). Later, researchers began to use non-demographic factors such as ecological and personal factors. The usage of non-demographic factors in the researchers have more consistent findings. Since non-demographic factors are considered more relevant compared to demographic factors, more researches with non-demographic factors are needed to reinforce and enrich previous findings.

In terms of geographical area, many researches in the past were performed in European and American countries. It is because the consumers in those countries were deemed having a good environmental awareness (Diamantopoulos, 2003; Cheah and Phau, 2011; Khare, 2014). Consequently, findings from the previous researches have a strong European-American nuance. The researches on consumer from different countries or cultures might be give different findings. Therefore, research expansion on consumers in different countries or cultures is considered as an appropriate step (Cheah and Phau, 2011). Developing countries, mainly Asian countries, are seen as the opportunity to widen the research scope since the consumers’ awareness towards the environment in these countries is increasing (Khare, 2014). There is a lot of researches related to purchase intention towards green products have been done on consumers in Asian countries, such as China (Chan, 2001; Tang et al, 2014), Korea (Kim, 2011; Seo-Yeon Jang et al, 2015; Youl-ha, 2012), India (Khare, 2014; Manaktola & Jauhari, 2007; Siringi, 2012), Hongkong (Chan, 2000; Lee, 2008), and Taiwan (Yi-Chung, Huang et al, 2012; Chuan-Lu et al, 2013; Yu-Shan Chen and Ching Hsun Chan, 2012; Shwu-Ing Wu and Jia-Yi Chen, 2014).

Researches in the Indonesian context are still limited, whereas Indonesian consumers are the potential target market of green products. Increasing middle-up class segment (McKinsey, 2014) and increasing campaign on living environment are the indications for that. With Indonesia’s potential as a market for green products, sufficient knowledge on relationship between consumers’ behaviour with green product is needed. An understanding on factors that influence purchase intention of Indonesian consumer towards green product is very important. Therefore, researches on influence of non-demographic factors on purchase intention towards green products in Indonesia are deemed worth doing. This research will identify non-demographic factors that influence Indonesian consumers’ attitude towards green products and investigate the relationship between Indonesian consumers’ attitude and their purchase intention towards those green products.

**LITERATURE REVIEW**

Researches on purchase intention towards green product become a certain interest to researchers, especially after it was found out that high awareness of environmental issues does not necessarily influence purchase intention towards green products. Most of previous researches used Theory of Reasoned Action (Ajzen, 1991) and Theory of Planned Behaviour (Ajzen, 1991) to describe this phenomena.

**Influence of Attitude on Purchase Intention**

Theory of Reasoned Action (Ajzen, 1991) explained that intention is an indication of how much the willingness of an individual to try something and how much effort that is exerted to do that (Ajzen, 1991). In addition, Theory of Reasoned Action also stated that the stronger
intention of an individual, the larger possibility that the individual will do that action (Ajzen, 1991). In Theory of Reasoned Action, it is also explained that intention is a function of two variables which are the individual’s attitude towards behaviour and subjective norms. Ajzen (1991) explained that attitude toward certain behaviour is a result of assessment or evaluation that given by an individual to the behaviour, whether the behaviour is deemed favourable and unfavourable. Ajzen (1991) improved his theory and provided a new theory called Theory of Planned Behaviour. The difference between Theory of Planned Behaviour (Ajzen, 1991) and Theory of Reasoned Action (Ajzen, 1991) is the addition of another factor as the determinant of intention. Perceived behavioural control is the additional factor in Theory of Planned Behaviour making this theory different with the previous theory.

Though it has some differences, both Theory of Reasoned Action (1975) and Theory of Planned Behaviour (1991), state that the more positive or favourable an individual’s attitude towards a thing, the stronger the individual’s intention to do the thing.

Various researches using Theory of Reasoned Action (Ajzen, 1991) successfully confirmed that consumers’ attitude and subjective norms influence consumers’ intention towards green products (Pau & Cheah, 2011; Soonthonsmai, 2001; Chan, 2001;). Usage of Theory of Planned Behaviour (Ajzen, 1991) in some researches also give similar results in which the three factors, which are consumers’ attitude, subjective norms, and perceived behavioural control influence purchase intention towards green products (Haryanto, 2014; Jang, 2015; Kalafatis et al., 1999; Tang et al., 2014; Wu & Chen, 2014). There are some researches, however, which do not use all factors in the theory to explain purchase intention towards green products. Like other researches, results obtained from those researches also confirmed the finding that consumers’ attitude influences purchase intention towards green products (Haryanto, 2014; Chan, 2011; Cheah & Pau, 2011; Tang et al., 2014).

Factors Influencing Consumers’ Attitude

In the previous researches, various factors are tested to find out whether those factors influence consumers’ attitude towards green products. Those factors can be divided into some categories, which are personal factors, ecological factors, and other factors.

Personal Factors

There are some factors that is classified as personal factors such as consumer effectiveness, altruism, and collectivism. According to Oliver (2007), perceived consumer effectiveness is a representation of an individual’s belief that the action he/she does will be sufficient to make a difference and to create a change. Previous researches also had been done to analyze the influence of perceived consumer effectiveness factor on consumers’ attitude towards green products. Those researches were done in various consumers’ contexts, such as consumers in America (Straughan & Roberts, 1990), consumers in Egypt (Mostafa, 2007), consumers in Portugal (Akehurst et al., 2011), and consumers in Chinese (Tang et al., 2014). Although being done in different consumer’s contexts, those researches are succeeded to confirm that perceived consumer effectiveness factor influence consumers’ attitude towards green products.

Akehurst et al., (2011) gave definition that altruism is attentive attitude towards social welfare.
Relationship between altruism and consumers’ attitude towards green products was initially analysed by a theory called Schwartz Norm – Activation Model of Altruism (Schwartz, 1977). The theory states that responsibility to avoid environmental damage will be formed if an individual realizes that action he/she does will have a consequence on other people or the society (Schwartz, 1977). Research on the relationship between altruism and consumer’s attitude towards green product had been done with different consumers contexts, such as researches on consumers in America (Straughan & Roberts, 1995), consumers in Egypt (Mostafa, 2006), and consumers in Portugal (Akehurst et al., 2011). Those researches has similar finding that altruism influence consumers’ attitude towards green products.

Meanwhile, collectivism is a value that emphasized that group’s interests and objectives are deemed more important than personal objectives, so people is expected to participate and cooperate in groups (Triandis, 1989). Previously, there are some researches had been done to investigate the influence of the collectivism on consumers’ attitude towards green products, for example researches on consumers in China (Chan, 2001), consumers in Canada (Laroche et al., 2001), and consumers in Australia (Cheah & Phau, 2012). Although having different consumers’ contexts, those researches has consistent results that collectivism is confirmed as the influencing factors to consumers’ attitude towards green products.

**Ecological Factors**

Environmental knowledge is the factor that is categorized as ecological factor. Sanchez and Lafuente (2010) gave an understanding that environmental knowledge is parameter used to measure the amount of information related to environmental issues that is owned by a person. Other researches also use ecoliteracy as a term that has similar meaning with environmental knowledge. Ecoliteracy is defined as the ability of person to identify and recognize various symbols, concepts, and behaviours that is related to environment (Cheah & Phau, 2012; Laroche, 2001). Previous researches are also done to analyzed the influence of environmental knowledge on consumers’ attitude towards green products. Those researches had been done in various consumers’ contexts like consumers in China (Chan, 2001) and consumers in Australia (Cheah & Phau, 2012). Though those researches has different consumers’ context, the same finding is obtained. The result of the previous researches has confirmed that environmental knowledge influences consumers’ attitude towards green products.

**Interpersonal Factors**

Interpersonal factor are also called interperson al influence. Interpersonal factor depicts influence of convincing persuasive actions done by a social group, aiming to influence a person to do certain action (Cheah & Phau, 2011). Various researches aiming at finding out influence of the interpersonal influence on consumers’ attitude towards green products also had been done in various consumers contexts such as consumers in Hongkong (Lee, 2008), consumers in Australia (Cheah & Phau, 2011), and consumers in India (Khare, 2014).

**Other Factors**

Perceived benefit is classified as others factors. Wu and Chen (2014) give definition of perceived benefit as a perception on quality and functions of a product and consumers’ expectation on their need’s fulfillment through the product usage. Some researches use functional attribute as the another term that has similar meaning with perceived benefit.

The idea that in selecting a product, consumers do not only consider environmental aspect of the product, but also long-term benefits given by the product to consumers become a basis of assumption that perceived benefit influence consumers’ attitude towards green product (Haryanto, 2014). The assumption was later investigated through some researches in various consumers’ context, such as consumers in...
Spain (Hartmann, 2005), consumers in Taiwan (Wu & Chen, 2014), and consumers in China (Tang et al., 2014). In Indonesia, Haryanto (2014) also did the similar research to identify the influence of perceived benefit to consumers’ attitude towards green product.

**METHODS**

**Conceptual Framework and Hypothesis**

The conceptual framework used purchase intention towards green products as dependent variable. Purchase intention towards green products is determined based on an intervening variable which is consumers’ attitude towards green products. Consumers’ attitude on green products is determined through six independent variables, which are environmental knowledge, interpersonal influence, perceived consumer effectiveness, altruism, and perceived benefit. Additionally, perceived product necessity is expected to give moderating effect on the relationship between consumers’ attitude on green products and purchase intention towards green products. Based on the conceptual framework that has been built (Figure 1), there are 8 hypotheses that is able to be developed, which are:

**H1:** Environmental knowledge influences Indonesian consumers’ attitude towards green products

**H2:** Interpersonal affect Indonesian consumers’ attitude towards green products

**H3:** Collectivism influences Indonesian consumers’ attitude towards green products

**H4:** Perceived consumer effectiveness influences Indonesian consumers’ attitude towards green products

**H5:** Altruism influences Indonesian consumers’ attitude towards green products

**H6:** Perceived benefit influences Indonesian consumers’ attitude towards green products

**H7:** Indonesian consumers’ attitude towards green products influences purchase intention towards green products

**H8:** Perceived product necessity moderates the relationship between Indonesian consumers’ attitude towards green products and purchase intention towards green products.

**Sample Size and Data Collecting Technique**

The research used data from 350 respondents. Some criterias are applied to determine the suitable respondent. The first criteria is the person is Indonesian citizen, non-Indonesian
citizen who live in Indonesia is not allowed to participate as the respondent. Second, the respondent must live in Jakarta, supported with the ownership of identity card of Jakarta area. The last criteria is the age of respondent must be in the range of 18-40 years old. In addition, sampling technique used in this research is non-probability sampling with judgemental method. The questionnaires are distributed directly to be filled-in by appropriate respondents. Some respondents are also filled-in the questionnaire through the electronic link.

**Research Instrument**

The research instrument used is a questionnaire. The questionnaire is divided into three parts, which are screening parts, main parts, and demographic profile. The screening part is a beginning part that consists of various questions to identify whether respondent candidates meet all requirements needed in this research. Meanwhile, the main part consists of questions that is related with variables used in this research. The main part consists of 10 sub-parts, which are environmental knowledge sub-part (6 questions), interpersonal influence sub-part (8 questions), collectivism sub-part (3 parts), purchase intention towards green products sub-part (3 questions), perceived product necessity sub-part (measurement of necessity level using 14 product types and the intention to purchase the products if available as green products). The last part of this questionnaire is demographic profile. This part contains identification of respondents’ demographic profiles that consist of occupation, education level, expenditure level, and gender.

**RESULT AND DISCUSSION**

**Respondents’ Profiles**

Profiles of respondents are differentiated through various demographic characteristics, such as residence area, group age, gender, expenditure level, occupation level, and education level.

**Reliability Test and Validity Test**

Measurement of reliability level is done using Cronbach’s Alpha parameter that is deemed as sufficient parameter to assess reliability in various researches. If the value of Cronbach’s Alpha is above 0.70, then the reliability is in acceptable level (Sekaran & Bougie,
Since in this research, Cronbach’s Alpha for each variable is more than 0.70, so the reliability of measurement is acceptable. Validity test is done using factor analysis, the method to examine the construct validity. This method was also used in previous researches (Cheah & Phau, 2011; Wu & Chen, 2014). Kaiser (1958) in Wu and Chen (2014) recommended that validity of measurement is deemed good if KMO is above 0.50, eigenvalue more than 1, factor loadings value more than 0.50, and total cumulative variance is above 50%. Since all those criteria are fulfilled in this research, so the validity level of measurement is perceived to be good.

**Product-Moment Correlation Testing**

Correlation calculation aims to find out the strength and closeness of linear relationship between two variables. The calculation of product-moment correlation is depicted into one coefficient called product-moment correlation, symbolized with “r” (Malhotra, 2010). Based on the result of correlation calculation in this research, there are four things obtained. First, there are four variables that have a positive correlation with consumers’ attitude towards green products, which are collectivism (r=0.216**), perceived consumer effectiveness (r=0.326**), altruism (r=0.354**), and perceived benefit (r=0.162**). Second, there is a positive correlation between environmental knowledge and consumers’ attitude towards green products, although the correlation between these two variables is not as strong as the correlations in the previous variables (r=0.126*) since correlation is only significant at level α=0.10. Third, interpersonal influence variable does not have a significant correlation with consumers attitude towards green products. Fourth, there are positive correlation between consumers’ attitude towards green products and purchase intention towards green products (r=0.343**).

**Hypothesis Testing**

Two regression methods is used in hypothesis testing, linear regression to examine H1- H7 and hierarchical moderated regression to examine H8 (Cheah & Phau, 2011; Sharma, 1995). Based on hypothesis testing that is obtained in this research, there are only five factors that significantly influence Indonesian consumers’ attitude towards green products. Based on strength of the influence, those five factors are altruism.
(b=0.354, t-stat=7.089), perceived consumer effectiveness (b=0.281, t-stat=5.484), collectivism (b=0.216, t-stat=4.145), perceived benefit (b=0.162, t-stat=3.075), and environmental knowledge (b=0.126, t-stat=2.371).

Altruism is the factor with the strongest influence to Indonesian consumers’ attitude towards green products. Indonesian consumers give a great attention to social issues. It is also impacted their attitude toward a product. In general, Indonesian consumers have a positive image towards the products that is claimed as environmentally friendly product and give contribution to the environment, one of them is green product (Nielsen, 2014).

Meanwhile, influence of perceived consumer effectiveness is highly depending on consumers profiles. Younger consumers with high education level tend to have higher level of perceived consumer effectiveness. Different from perceived consumer effectiveness, collectivism is not depend on consumers profile and deeply-rooted in Indonesian consumers (Hofstede, 2000). Indonesian consumers think that individual contribution in order to achieve the commonwealth as the important things. One of the way to give contribution to society is through selecting products that give less damage to environment and perceived positive by the society.

Perceived benefit is also seen as the influencing factor to Indonesian consumers’ attitude towards green products, although the strength of influence given is not as much as the three previous factors. Less-influence of perceived benefit is possible to be driven by current perception of Indonesian consumers toward green product. Currently, Indonesian consumers perceived that green product has similar function

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Table 4. The Result of Hierarchical Moderated Regression

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Mean</th>
<th>Necessity (N)</th>
<th>Attitudes (Att)</th>
<th>N × Att</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand phones</td>
<td>4.16</td>
<td>0.527*</td>
<td>0.558</td>
<td>-0.487</td>
<td>0.306*</td>
</tr>
<tr>
<td>Shirts (T-shirts)</td>
<td>4.12</td>
<td>0.610</td>
<td>0.560</td>
<td>-0.439</td>
<td>0.432</td>
</tr>
<tr>
<td>Shampoo</td>
<td>4.02</td>
<td>0.304</td>
<td>0.124</td>
<td>-0.069</td>
<td>0.104</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>4.00</td>
<td>0.490</td>
<td>0.152</td>
<td>-0.019</td>
<td>0.267</td>
</tr>
<tr>
<td>Freezers</td>
<td>3.86</td>
<td>0.514</td>
<td>-0.068</td>
<td>0.230</td>
<td>0.306</td>
</tr>
<tr>
<td>Personal Computers</td>
<td>3.74</td>
<td>0.607</td>
<td>0.176</td>
<td>-0.043</td>
<td>0.385</td>
</tr>
<tr>
<td>Kitchen Appliances</td>
<td>3.70</td>
<td>0.607</td>
<td>0.176</td>
<td>-0.043</td>
<td>0.391</td>
</tr>
<tr>
<td>Light Drink</td>
<td>3.26</td>
<td>0.635</td>
<td>-0.195</td>
<td>0.190</td>
<td>0.424</td>
</tr>
<tr>
<td>Jewelry</td>
<td>3.25</td>
<td>0.448</td>
<td>0.020</td>
<td>-0.034</td>
<td>0.200</td>
</tr>
<tr>
<td>Cosmetics</td>
<td>3.22</td>
<td>0.558</td>
<td>-0.027</td>
<td>0.119</td>
<td>0.313</td>
</tr>
<tr>
<td>Toilet Tissues</td>
<td>3.19</td>
<td>0.724</td>
<td>-0.058</td>
<td>0.154</td>
<td>0.554</td>
</tr>
<tr>
<td>Greeting Cards</td>
<td>2.22</td>
<td>0.643</td>
<td>0.019</td>
<td>0.093</td>
<td>0.419</td>
</tr>
<tr>
<td>Hairdressing</td>
<td>2.45</td>
<td>0.643</td>
<td>-0.065</td>
<td>0.161</td>
<td>0.413</td>
</tr>
<tr>
<td>Products</td>
<td>2.70</td>
<td>0.605</td>
<td>-0.002</td>
<td>0.046</td>
<td>0.381</td>
</tr>
<tr>
<td>Shopping Bags</td>
<td>2.70</td>
<td>0.000</td>
<td>0.971</td>
<td>0.328</td>
<td></td>
</tr>
</tbody>
</table>

*standardized regression parameter; *p-value; *R²(N x Att)
and qualities with the non-green product. Indonesian consumers also think that the ability of the green product to give minimum environmentally damaging impact as an additional advantage, but it does not add advantages obtained by consumers from the products.

The last factor that gives influence on Indonesian consumers’ attitude towards green products is environmental knowledge. In general, Indonesia consumers still have low environmental knowledge (Haryanto, 2014). At certain profiles, however, environmental knowledge is assumed to be better, such as at high education level.

Identification of moderating effect of perceived product necessity is done by using hierarchical moderated regression (Sharma et al., 1995). The hierarchical moderated regression was done separately for each product type that is tested in the research. Dependent variable is purchase intention of each product type if the product is available as green products. The independent variables involve three terms: level of product necessity (N), consumers’ attitude towards green products (Att), and interaction between perceived product necessity and attitude towards green products (N x Att). Moderation effect is indicated if the value of interaction between product necessity and consumers’ attitude towards green products (N x Att) is statistically significant (p-value < 0.05).

Based on the result of moderated regression, there is no indication that perceived product necessity moderate the relationship between consumers’ attitude towards green products and purchase intention towards green products. It is shown by insignificant p-value (not more than 0.05) for variable interaction between attitude and perceived product necessity (N x Att). The finding from the current research is different with the previous finding in which the perceived product necessity factor gave the moderation effect (Cheah & Phau, 2011). The difference is possible to be caused by low awareness of the availability of green product in the market. Indonesian consumers are still lack of information related to type of green products that is available in the market. As a consequence, consumers found difficulty in assessing purchase intention towards certain types of green products. The low awareness towards the availability of green products in the market is assumed to be caused by the lack of communication from the producers of the green product.

**CONCLUSION**

Based on the findings obtained in this research, it can be concluded that Indonesian consumers’ attitude towards green products are influenced by non-demographic factors which are altruism, perceived consumer effectiveness, collectivism, perceived product benefit, and environmental knowledge. Meanwhile, there is no significant influence from interpersonal influence on Indonesian consumers’ attitude towards green products. Compared to the other factors, altruism, perceived consumer effectiveness, and collectivism has stronger influence on Indonesian consumers’ attitude towards green products. Other than those findings, the research also found that consumers’ attitude towards green products influences purchase intention towards green products. In the context of Indonesia consumers, however, those two factors are not moderated by perceived product necessity.

This research also has some limitations that cause some of findings might not be applicable to describe the behaviour of overall Indonesian consumer. In terms of education level, majority of respondent of this research has diploma degree or bachelor degree, while Indonesian population consists of larger portion of high school graduated. Hence, some of the findings might not be able to describe their behaviour. Another limitation is seen in research coverage. This research only covers Jakarta, while Indonesia has variation behaviour across region.

For further researches in the future, there are two things that can be considered to enrich the existing information or knowledge. First, larger sample distribution is needed, especially sam-
ples from other cities, except Jakarta. Second, repetitive research is required to be done, at least in 6-months period, in order to re-validate the previous findings and obtain the new findings.

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