

Characteristic and Preferences of Green Consumer Stratification As Bases to Formulating Marketing Strategies of Ecolabel-Certified Furniture

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Abstract

International furniture markets certify ecolabel has been growing, but the domestic market has not yet developed. Unfortunately, because these products have two advantages that ensure environmental sustainability and promote a furniture market. This study was expected to open and developed the domestic market for ecolabel-certified furniture. The aim of this study was to develop marketing strategies for ecolabel-certified furniture on each of green consumer stratifications. Consumer stratification was conducted to group a wider market. This grouping was meant to make the marketing strategies drawn up can be used appropriately. The formulation of the marketing strategies for ecolabel-certified furniture was done through an analysis of consumer preferences over the strategies in question. The components used were: satisfaction, safety, socialization, and sustainability, as well as government policies which could open markets. The respondents were 408 potential consumers in Jakarta and its surroundings. The method used was purposive and convenience sampling, in which the survey was conducted at exhibitions and showrooms. Ward Method, Stepwise Discriminant Analysis and Biplot Analysis were used to generate consumer stratifications. Before that, reliability tests were conducted using Crombach Alpha method. In addition, data was explored and reduced using Component Principle Analysis. Preference analysis was performed using the method proposed by Thurston Case V. This study results four stratifications of green consumers. There were similarities and differences in preference on each of the stratification of the component of green marketing strategy as well as the marketing strategies of furniture-certified ecolabel for the targeted consumers.

Keywords: Green Consumer Segmentation, Green Marketing Strategies, Furniture, Jakarta, Indonesia

Introduction

According to Hidayat (2011), the furniture industry in the second quarter of 2011 was an industry with the highest contribution to the achievement of growth of Gross Domestic Product (GDP) (12, 15%). However, according to Tjahyono (2011) the national furniture market share in 2010 was dominated by China's furniture (20-30%) within the passage of ASEAN-China Free Trade Agreement (AC-FTA). He predicts in the coming years China's market share will be increasing or there will be decreasing in national market share. Therefore, the increase in national furniture market share and prevention of the influx of furniture from AC-FTA countries needs to be done. One of these is conducted by developing of innovative and specific furniture which is certifying ecolabel. If ecolabel-certified furniture could be promoted and become a national consumer requirement, there are two advantages will be gained. First, it can be barrier of influx furniture from abroad, particularly furniture that is uncertified. Second, reduce the environmental damage particularly forest in Indonesia which is constitute of the lung of the world, considering the ecolabel-certified furniture using wood materials that has been registered or certified origin

Ecolabel-certified furniture is furniture that has got a written verification and has passed the CoC certification process. There are two kinds of certification: Sustainable Forest Management (SFM) and Chain of Custody (COC). The certifications are aimed to assess the management of forests owned by public, companies or countries. The certification uses the criteria that are established by the assessor agencies, e.g. Forest Stewardship Council (FSC), Program for the Endorsement of Forest Certification (PEFC), Indonesia Ecolabelling Institute (LEI), and the legislation applicable in global forestry i.e., the legal verification system of timber (Prabhu, et.al., 1999).

The development of certified furniture company in Indonesia is due to the demands for ecolabel-certified furniture which comes from the international market, particularly Europe and the USA. To develop this industry in national market, increasing production should be supported by growth of demand from nationwide consumers. Therefore to deal with it, green marketing strategies that can adopt consumers' desire are needed. Existing as each group of consumers has different alignments on environmental sustainability.

However, the green marketing strategy cannot increase the market share of ecolabelled products or green products (Rex et al., 2007; Peattie and Crane, 2005). The main reason is setting a target market that is limited only to consumers who have sided with environmental sustainability. In accordance with the opinion of Rex et al. (2007), the target market needs to be expanded more than the target market that is defined by earlier researchers which is potential target market. The determination of the broader market can only be done by green consumers that refer to the concept of marketing strategy delivered by Kottler (1991). Segmentation of a broader market target needs to be done, so that manufacturers can penetrate the market appropriately adjusted to customer segmentation.

Based on the above issue, the research questions are: How are green consumer

stratifications developed in Jakarta? How does consumer preferences for each stratification fit green marketing strategies and government policies? What are the appropriate marketing strategies for each of the stratification of the green consumer?

The Concept of Segmentation, Preferences and Green Marketing Strategy

Segmentation variables have been determined based on the consideration of the authors and the preliminary research. Segmentation process performed using post hoc approach or behavioral segmentation. The segmentation variables are real activity, interest, attitude (Sumarwan, 2002; Straughan et al. (1999), knowledge (Laroche, 2002; Jensen et al., 2004; Sudarmadi et al., 2001), and consciousness (David, 2007). Do Paco et.al. (2009) defines demographic and behavioral factors as determining variables on green consumer segmentation in their research. Devinney (2010) describes two approaches: prior segmentation and behavior segmentation. The green marketing strategy based on green consumer segmentation is built by Grant (2007).

Demographic variables and price sensitivity are not used in determining the stratification of consumer. This approach is different from the approaches taken by Do Poco (2010) which uses demographic variables in addition to behavior variables. It is also different from the approach taken by D'Souza (2007) which uses price sensitivity variable.

Consumers who are the object of this research are green consumers who are potentially purchasing green products and figuring that all consumers can attempt to purchase certified furniture. This approach is different from approaches taken by Laroche et al. (2002), Grant (2007) and Thompson (2009) which is stratifying the consumer from the existing green consumers.

Preferences variables for green marketing strategies are based on the components of green marketing strategies (Wasik, 1999); satisfaction, safety, socialization, and sustainability. Government policy variables include tax subsidies (Nyborg, 2011) and interest rate subsidies. Determination of the variables of green marketing strategies components is based on prior research and key factor of each component adapted to ecolabel specification-certified furniture.

Satisfaction components consist of price (Vlosky et.al., 1998; Karki 2000; Jensen et.al., 2004; Anderson et.al., 2005; Aquilar et.al., 2006), quality (Anderson et al., 2004; Aquilar et al., 2006), design (Ottman, 1998; Karki, 2000; Purnomo et al., 2007) and type of label (Karki, 2000; Teisl, 2003; Anderson et al., 2004; Archer et al., 2005). Safety component is components of a product that can provide good impact to environmental sustainability and environmental safety. Components of Socialization in this research are advertisement (Rex et al., 2006; Archer et al., 2005; D'Souza, 2005; Connors, 2002), exhibition, and interactive advertising (Ottman, 1998; D'Souza, 2004; Archer et al., 2005; Sudarmadi et al., 2001). Component of sustainable is factors of marketing strategies that can support business continuity and environmental sustainability. In this research components of sustainability used are international

institution of accreditation and national institution of accreditation. Both LEI and FSC are international and national institutions of accreditation, respectively.

According to Nyborg (2011), to increase consumption of green products, it must be supported by tax policy taking the consumer’s side. Therefore, one of the attribute of government policy used in this research is reduction of purchase tax. Another variable is interest rate cuts of purchasing ecolabel-certified furniture on credit.

The concept of the consumer stratification, preference analysis on green marketing strategies, government strategies, and green marketing strategies are presented in the following image (Figure 1). To clarify Figure 1, it is described as follows: Consumer stratification is formed by the grouping of consumers based on psychographic and behavioral variables. Each consumer stratification is determined its preference towards stimulant of green marketing strategies that consist of strategies of satisfaction, safety, socialization and sustainable. It is also determined the preferences on each consumer stratification towards government policies that benefit consumer. In addition, it is conducted demographic analysis on each consumer stratification. Marketing strategy of ecolabel-certified furniture is conducted based on characteristic and preference on each consumer stratification towards green marketing strategies, government policy components and demographic analysis.

Research Methodology

There were 408 respondents interviewed in this study. Data collection or sampling technique used was convenience sampling. Convenience sampling is a part of non-

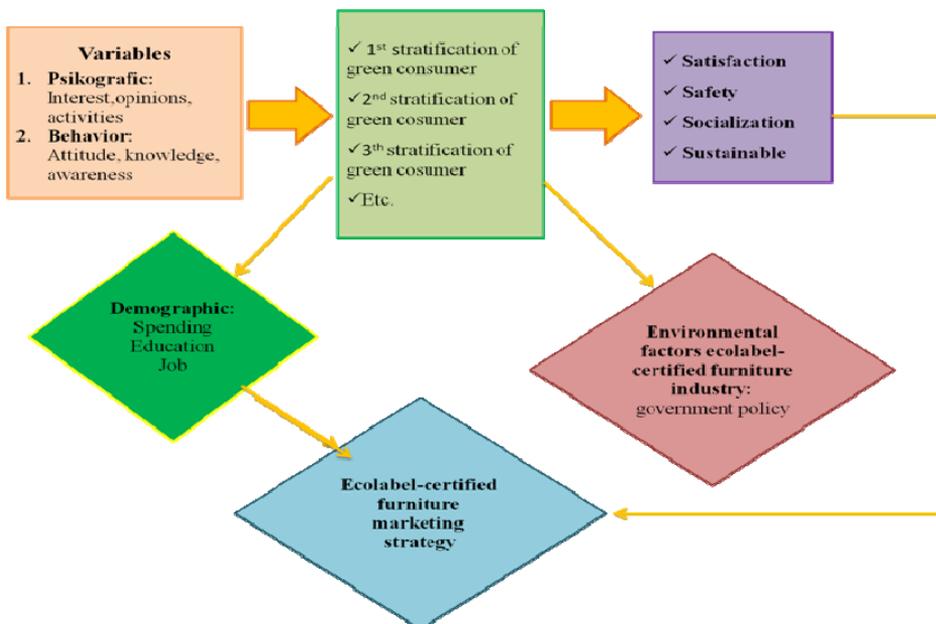


Figure 1. The concept of the consumer stratification, preference analysis on green marketing strategies, government strategies, and green marketing strategies

probability sampling in which the technique provides the opportunity for some members of the population easily to be elected as sample. Some considerations in determining the sampling technique were: first, the difficulty in finding respondents who represent the population. Secondly, prior studies showed that the research related to consumer behavior could be done with non-probability sampling, especially for purposive sampling (Chieh, 2003; Noknoi et al., 2009; Ravichandran et al., 2010). Thirdly, the geographical distribution of the target population was not known, thus resulting the unavailability of interest to owners, potential owners, as well as the population. Weakness of this method is the value or the percentage of the sample limited the generalization. Furthermore, recruitments of the respondents were performed at exhibitions and showrooms. Interviews were conducted on respondents who are willing to be informant.

To ensure that the data obtained had a certain reliability level and that the results of the analysis provide a sufficiency level of consistency, the reliability tests was performed using the statistical Crombach Alpha. The test criteria used was 0.6 (Vincent, 2005). Segmentations were carried out through several stages of reduction dimensions with Component Principles Analysis (PCA). Firstly, segmenting the data using Ward's method; secondly, it was classified based on a distinctive functions using Stepwise Discriminant Analysis; and lastly, identifies the segments that had been formed using Biplot analysis. In addition to segmenting, PCA was also used to reduce the dimensions of 46 variables. These reductions are essentially building new variables with distinctive characteristics; these new variables are orthogonal and generated from the largest to the smallest. To get the segmentations of green consumers, further step was segmenting them using Ward's method (Hierarchical Cluster Analysis) or Hierarchical method. In the initial analysis of this method the number of segments formed could not be determined. However, it can be seen through the dendrogram which is based on the results of merging distance resulting from this analysis.

To ensure the membership of each segment resulted from cluster analysis then it was performed a classification using discriminant analysis. The method used was Stepwise Discriminant Analysis with the criterion F (in) 0.05 and F (out) 0.05. It meant, that the segmentation was considered significant in explaining group differences if it had a maximum error of 5%. Meanwhile, if the error rate exceed 10 % then it clearly would be excluded from inter-segment (Siswadi and Suharjo, 1999).

Furthermore, to identify and to analyze the segments that had been formed then it was used the Biplot Analysis (Siswadi & Suharjo, 1999). The analysis was conducted based on 16 variables that significantly explained the segments which correspond to the result of discriminant analysis. However, before identification, the variables were grouped based on several aspects, i.e. knowledge or opinions, interests, and activities related to environmental sustainability. Biplot analysis can also be used to describe the characteristics of the segment that was formed in greater depth. The data used was behavior that related to environmental sustainability which was reflected in using and purchasing environmentally friendly products. It was used for consumer products and certified furniture. Respondents' reason to purchase the green products was considered

as indicator of environmental sustainability awareness.

The importance of demographic factors and the differences of each segment were tested using Chi-square method. After segmenting the consumer or stratifications of consumer had been being formed, an analysis of preference on each stratifications was conducted using Thurston Case V method (Maydew and Olivares 2004). The finding of these preferences was used to determine green marketing strategies that were appropriate on each consumer stratifications which had been formed. Those strategies could also be used to encourage the consumer towards the higher stratification in terms of their concern for the environment and their consciousness to purchase ecolabel-certified furniture.

The Result of the Research

Green Consumer Segmentation

Reliability tests conducted on the data produce a Cronbach Alpha value of 0.93 which mean that the data are reliable and a further analysis could be done. Principle Component Analysis (PCA) is resulted in 17 variables with 80% total diversity. Two respondents (number 211 and 252) are considered as outliers, so they are excluded in further analysis.

From 408 respondents interviewed, there are two respondents considered as outliers and 12 of them not completed their answer. Thus, there are only 394 respondents analyzed in this segmentation. Ward's method used result in four alternative segmentations, namely group 2, 3, 4, and 5. Based on identification of the shortest distance between groups, four segments were decided. 16 of 46 variables have been selected by Stepwise Discriminant Analysis method. Those variables are considered significant in distinguishing segments. The results showed that the numbers of each segment are: 162 in segment 1, 91 in segment 2, 77 in segment 3, and 64 in segment 4. Members of the segment formed by Ward's method are different from ones formed by discriminant analysis. In discriminant analysis, members on the verge of the boundary between segments were transferred into the appropriate segments.

The depth of the results of the Biplot analysis describing the characteristics of the formed segments has been presented in Figure 2, 3 and 4. Figure 2 is the result of Biplot Analysis of activities, interests and attitude. Figure 3 is Biplot analysis of purchase of environmental products. Figure 4 is Biplot analysis of the reasons why consumers purchase the furniture. Table 1 is given to explain figure 2 more clearly.

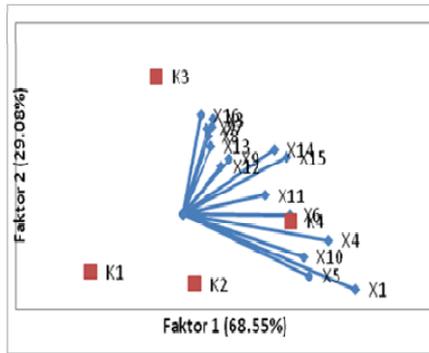
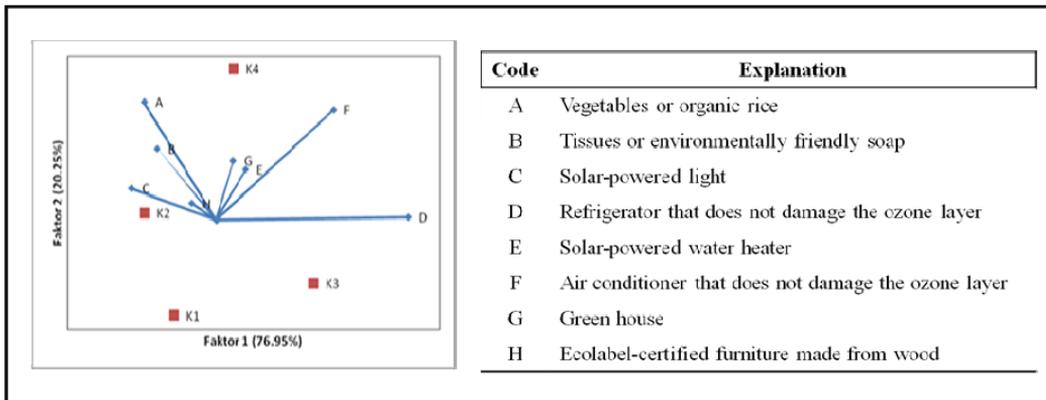


Figure 2. Biplot analysis of activity, interest, and attitude

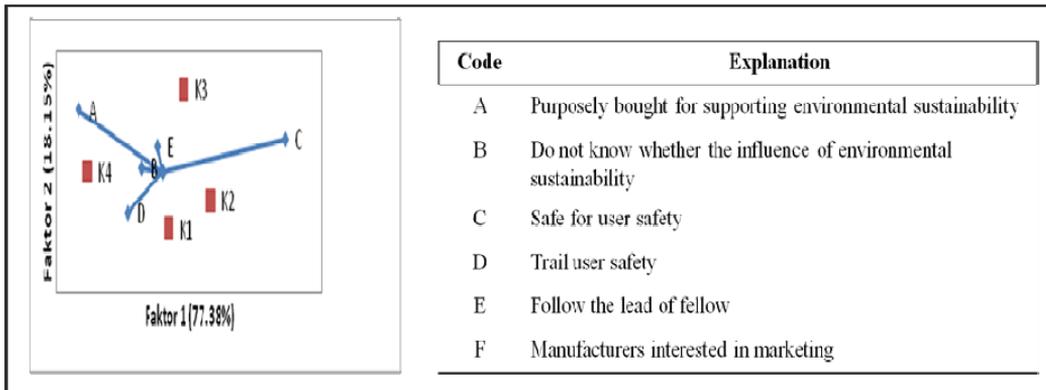
Table 1. Biplot analysis result of activities, interests and attitude

Cluster	Variable	Value above the Standard	Value Under the Standard
K1	Activity		X6, X11, X13
	Interest		X1, X4, X10, X14, X15
	Opinion		X3, X7, X12
K2	Knowledge		X2, X8, X9, X16
	Activity	X6	X11, X13
	Interest	X5, X10, X4, X1	X15, X14
K3	Opinion		X3, X7, X12
	Knowledge		X2, X8, X9, X16
	Activity	X13, X11	X6
K4	Interest	X14, X15	X1, X4, X5, X10
	Opinion	X3, X7, X12	
	Knowledge	X9	X2, X8, X16



Code	Explanation
A	Vegetables or organic rice
B	Tissues or environmentally friendly soap
C	Solar-powered light
D	Refrigerator that does not damage the ozone layer
E	Solar-powered water heater
F	Air conditioner that does not damage the ozone layer
G	Green house
H	Ecolabel-certified furniture made from wood

Figure 3. Biplot analysis of purchase of environmental products



Code	Explanation
A	Purposely bought for supporting environmental sustainability
B	Do not know whether the influence of environmental sustainability
C	Safe for user safety
D	Trail user safety
E	Follow the lead of fellow
F	Manufacturers interested in marketing

Figure 4. Biplot analysis of the reasons why consumers purchase furniture

The characteristics of the four formed segments could be derived from the result of Biplot analysis. Those four segments have a tiered characteristics based on their tendency to environmental sustainability. The weakest segment is the first segment. Meanwhile, the most powerful segment is the fourth segment. Those four segments referred as green consumer stratification are conventional consumers (41%), green consumers (23%), greener consumers (20%) and greenest consumers (16%).

Conventional consumers do not have opinions, attitudes, interests, real efforts and knowledge towards environmental sustainability. They also never purchase environmentally friendly products. If they purchase environmentally friendly products, their decision is not based on consideration for environmental sustainability.

Green consumers have begun to make simple effort and to have interests in environmentally friendly products. However, they have not had knowledge, opinions, or attitudes about it. Nevertheless, they have already purchased the products though only limited to specific consumer goods. The reason why they bought the product is not because the emergence of environmental awareness, but because they is safe for them.

Greener consumers have made a real effort in preserving the environment and they have had the interests as well as opinion or attitudes in environmental sustainability. However, they do not have adequate knowledge about it. They have started purchasing environmentally products, but limited to durable ones. The reason for making the purchase is awareness for the environment.

Greenest consumers have made more efforts than the previous segment. They have opinions, attitudes, interests, and knowledge about environmental sustainability. They purchase environmentally friendly products not only limited to consumers' goods but also based on their durability. They have also made environmentally friendly attitude by making it as an integral part on their lifestyle.

There is only one demographic variable which is significantly different among each stratifications education.

Preferences of consumer stratification

Consumers' preferences in furniture marketing strategies offered by manufacturers are divided based on the components of each strategy, i.e. satisfaction, safety, socialization, and sustainability as well as business factors or government policies.

The first strategy is satisfaction. For this component, the preference of stratification is almost equal. It is the first preference in all stratifications. The second, third, and fourth preferences are model, consisting of teak and neutral colors. The only difference is the position of each preference in stratification see table 2.

Table 2. Stratification of Consumer Preferences towards Satisfaction Strategy

Preference of Conventional Consumer			Preferences of Green Consumer			Preferences of Greener Consumer			Preferences of Greenest Consumer		
	Value	%		Value	%		Value	%		Value	%
Cost	15.8	36.2	Cost	17.8	37	Cost	18.3	33.7	Cost	20.2	38.9
The Minimalist	8.9	20.4	Teak	8.7	18.1	Teak	7.8	14.4	The Minimalist	8.3	16
Teak	7.2	16.5	Neutral color	7.8	16.2	Neutral color	7.8	14.4	Neutral color	6.9	13.3
Neutral color	6.4	14.6	The Minimalist	7.7	16	The Minimalist	7.6	14	Teak	6.5	12.5
Non-Teak	1.8	4.1	Classic	2.6	5.4	Classic	4.7	8.7	Classic	3.2	6.2
Classic	1.7	3.9	Paper logogram	1.3	2.7	Paper logogram	3.2	5.9	Non-Teak	2.5	4.8
Flexible color	1.3	3.0	Without logogram	0.9	1.9	Without logogram	2.2	4.1	Metal logogram	2.1	4.0
Without logogram	0.5	1.1	Flexible color	0.7	1.5	Flexible color	1.8	3.3	Without logogram	1.1	2.1
Paper logogram	0.1	0.2	Non-Teak	0.6	1.2	Non-Teak	0.9	1.7	Paper logogram	1.1	2.1
Metal logogram	0	0	Metal logogram	0	0	Metal logogram	0	0	Flexible color	0	0
Total	43.7	100	Total	48.1	100	Total	54.3	100	Total	51.9	100

The second strategy is safety. Most of conventional consumers choose the furniture regardless of the origin of the wood. Meanwhile, most of green consumers select the furniture based on their desire, the sustainability and ecolabel certification. Similar to greener consumers, they consider purchasing furniture made of wood from forest so that will not damage the environment, see table 3.

Table 3. Stratification of Consumer Preferences towards Safety Strategy

Plans to purchase Furniture	Consumer stratification			
	Conventional (%)	Green (%)	Greener (%)	Greenest (%)
Furniture which suit regardless of the origin of wood	36.0	15.2	32.5	18.8
Consider wood from the forest does not damage the environment even without an ecolabel certification	29.3	38.0	16.9	51.6
Furniture as you wish, sustainability, and has the ecolabel certification	34.8	46.7	50.6	29.7
Total	100.0	100.0	100.0	100.0

The third strategy is socialization. They have same preferences on each consumer stratification and consider television and newspaper as their first and second preference. However, in the next preferences they have different preferences. The sequences of further preferences of conventional consumers are internet, exhibition, magazines, radio, billboard, leaflets, and particular exhibitions. While the sequences of further preferences of green consumers are billboard, internet, social groups, radio,

particular exhibitions, leaflets, and magazines. Whereas the sequences of further preferences of greener consumers are particular exhibition, radio, billboard, internet, leaflets, magazines and social groups. Lastly, sequences of further preferences of greenest consumer are social groups, particular exhibitions, internet, billboards, leaflets, radio, and magazines, see table 4.

Table 4. Stratification of Consumer Preferences towards Socialization Strategy

Preferences of Conventional Consumer			Preferences of Green Consumer			Preferences of Greener Consumer			Preferences of Greenest Consumer		
	Value	%		Value	%		Value	%		Value	%
Television	19.3	35.3	Television	17.1	41.8	Television	17.5	39.0	Television	17.9	39.8
Newspaper	10.5	19.2	Newspaper	7.7	18.8	Newspaper	10.2	22.7	Newspaper	8.4	18.7
Internet	5.1	9.3	Billboard	4.7	11.5	Particular Exhibition	5.8	12.9	Social Group	4.2	9.3
Common Exhibition	5.0	9.1	Internet	3.3	8.1	Radio	4.0	8.9	Particular Exhibition	4.0	8.9
Magazine	4.8	8.8	Social Group	2.3	5.6	Billboard	3.0	6.7	Internet	3.4	7.6
Radio	4.8	8.8	Radio	2.1	5.1	Internet	1.7	3.8	Billboard	2.7	6.0
Billboard	2.5	4.6	Particular Exhibition	1.9	4.6	Leaflet	1.6	3.6	Leaflet	2.2	4.9
Leaflet	1.9	3.5	Leaflet	1.0	2.4	Magazine	0.6	1.3	Radio	2.0	4.4
Particular Exhibition	0.8	1.5	Magazine	0.8	2.0	Social Group	0.5	1.1	Magazine	0.2	0.4
Social Group	0.0	0.0	Common Exhibition	0.0	0.0	Common Exhibition	0.0	0.0	Common Exhibition	0.0	0.0
Total	54.7	100	Total	40.9	100	Total	44.9	100	Total	45.0	100

The last strategies are sustainability and government policies (Table 5 & 6). All stratifications have the same preference on these segments. The most preferred is LEI as national institution that sets standard, and tax subsidies.

Table 5. Stratification of Consumer Preferences towards Sustainable Strategy

Sustainable	Stratification							
	Conventional		Green		Greener		Greenest	
	Value	%	Value	%	Value	%	Value	%
LEI (National)	19.3	55.8	17.1	63.6	17.5	55.2	17.5	62.7
FSC (International)	4.8	13.9	2.1	7.8	4.0	12.6	2.0	7.2
Believe in the Manufacturer	10.5	30.3	7.7	28.6	10.2	32.2	8.4	30.1
Total	34.6	100	26.9	100	31.7	100	27.9	100

Table 6. Stratification of Consumer Preferences towards Industrial Environmental / Government Factors

Type of Subsidy	Stratification							
	Conventional		Green		Greener		Greenest	
	Value	%	Value	%	Value	%	Value	%
Tax Reduction	3.7	60.7	4.9	60.5	4.5	54.2	6.4	62.1
Reduction in Interest rates	2.4	39.3	3.2	39.5	3.8	45.8	3.9	37.9
Does not need Subsidies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	6.1	100	8.1	100	8.3	100	10.3	100

Discussion

Consumer stratifications

This study finds that an interest which is accompanied by attitude and behavior or real activity can encourage the growth of consumers' awareness of environmental sustainability, despite absence of adequate knowledge (on greener consumers). In this case, knowledge is not the major force in raising awareness to purchase green products in order to make some efforts for environmental sustainability. This means that there is no need to combine all the attitude, behavior, and knowledge to encourage the awareness of environmental sustainability, as proposed by Synodious (1990) and Grunert (1993). However, if consumers have a high knowledge, attitude and interest, they will have a higher awareness (on greenest consumer). Thereby, this knowledge is not a trigger that leads to awareness but a factor that enhances the awareness of consumers to purchase green products.

This study produces four stratifications of consumer namely conventional consumer, green consumer, greener consumer and greenest consumer. These stratifications are different green consumer segmentation or green consumer grouped by other researchers. D'Souza (2007) uses variable of price sensitivity in her research, so the study has for two stratifications of green consumer namely price sensitively green consumer and environmentally green consumer. However, this study did not use the variable of price sensitively. Therefore, there is no separation of the price sensitively on each of consumer stratifications, so that percentage of consumers who are sensitive or not are certainly unknown.

This study do not use variable of demographic to stratifying the consumers. This is different from the study performed by Do Paco (2010). Thus, there are differences among the results of both studies. In this study, all consumer stratification formed consists of various age, profession, level of management and income. Whereas, consumer stratification that is established by Do Poco (2010) consist of uncommitted, green activity, and undefined consumer in which each stratification shows differences in age, incomes level and level of particular job beside of awareness attitude and

knowledge. Compared to study performed by Do Poco (2010), this study focused on marketing strategies can be submitted to each stratification according to level of interest, activity, awareness and knowledge of consumers toward environmental sustainability and green products, regardless of demographic variable. Demographic Analysis on each stratification performed after the stratification formed shows that only variable of knowledge is significantly different on each stratification. The other variables such as age, profession, level of management and incomes are not significantly different on each consumer stratification. This reinforces the researcher's decision not to use variable of demographic to stratify the consumers.

In this research, the consumers stratified are the ones that are potentially as green consumers, in accordance with studies performed by D'Souza (2005), Banyte (2010) and Do Paco (2010). But this is different from studies performed by Laroche et al. (2002), Grant (2007) and Thompson (2009) which stratified the consumers as green consumers or consumer who have specification of green consumers. Approach to consumers who are potentially as green consumer is more encouraging the opening of implementation of marketing strategies of ecolabel-certified furniture on each of consumer stratification, compared to the approach only to the green consumers.

The greenest consumers who have the greatest tendency towards environmental sustainability are mostly universities graduates. They have wider knowledge about environmental sustainability compared to consumers in other stratification. In this case, it is reinforcing the analysts that the differences in education level showed significantly the differences on the stratification of green consumers. Meanwhile, the difference of the other demographic characteristic cannot show significantly the differences on the stratification of green consumers.

Preferences of Consumers stratifications

The absence of satisfaction component (price, model, and quality) in each stratification is due to similarities of the consumer requirement on the function of furniture. The greener and the greenest consumer have similar requirement on function of environmentally friendly furniture. Nevertheless, requirement on psychological function has emerged among the greenest consumers. The last functions are requirement for a metal-type logo and desire to get information and promotion. It focused on particular social groups.

Price is still an important consideration for all stratifications, although their purchasing powers are relatively high. This is not consistent to the results of previous study in which requirement purchasing products of premium price is influenced by awareness to preserve the environment (Jensen et al., 2004; Karki, 2000; Aquilar et al., 2006; Vlosky and Ozanne, 1998; Anderson et al., 2005). Considering that the ecolabel-certified furniture is a new product for the national market, information of these products has not been widely known.

It can be concluded that consumers who have greater awareness of environmental sustainability, do not put the price as their first consideration in purchasing the green

products. However, it will occur if the consumers have been given enough information about these products. Range of affordable price of ecolabel-certified furniture is around 11.7% to 37.6% above a normal price. This range shows that the consumers have not got information about price of these products. If they have got the information then it should be around 7% -20% above the normal price.

The following strategy is safety. Consumers on each stratification have also different preferences due to different perception about environmentally friendly or ecolabel-certified furniture.

In socialization strategy, all stratifications prefer to choose television and newspaper as media of socialization because both are often used, closer to daily life, and easily accessed by the consumers. The next component has slightly different sequence on each stratifications. This difference is in line with characteristics on each stratifications. The conventional consumers and green consumers prefer to choose the above line media (ATL), which is one-way media. This is because of their characteristics which do not have interests, attitudes, knowledge or environmental awareness. However, the green consumers already have interest and have started the real activities related to environmental sustainability. This shows that both of stratifications still need to receive information and promotion passively.

The preference of the greener and greenest consumers leads to requirement of media below the line (BTL), which is a two-way media that allows intensive interaction between consumers and producers. However, the greener consumers still do not know that intensive interaction between consumers and producers be required, therefore this interaction is only performed in a special exhibition of furniture. It is indicated by higher preference of special exhibitions. Meanwhile, the greenest consumers not only demand intensive interaction between consumers and producer but also ask for mutual take and give of information between them. It is indicated on third preference that they are using social media as a medium to receive information and promotion of the furniture

The preference on each consumer stratification is not much different toward a sustainable strategy. It is indicate that all consumer stratifications are more trusting the national institution than the international institution to certify. Thus, the national institution is an option for manufacturers to maintain the industrial sustainability of ecolabel-certified furniture.

The preference on each consumer stratification is also not much different toward government policy. In this case, the government policy chosen is the subsidies of purchase tax. The subsidies of purchase tax can reduce the price and give beneficial directly to consumer. It is consistent to Nyborg (2011) who is argued that tax reduction can increase consumer motivation to buy green products.

Managerial Implications

The characteristic of green consumer stratification and their preferences toward the components of green marketing strategies becomes a basis to formulate marketing strategies of ecolabel-certified furniture. The marketing strategies of ecolabel-certified furniture are used for penetration to domestic furniture market widely, not only on the market for green consumers.

Thereby, the marketing strategies are not only used as an attempt penetrates the wider market, but also to increase the number of green consumers. In this way, consumers can develop interest, attitudes, and awareness of the environmental sustainability. It is expected that the conventional consumer can become green consumers or higher stratification level. Moreover, it is expected that the other stratifications can rise to hogher level, e.g. the green consumers become greener consumers, or the greener consumers become the greenest consumers.

Conclusion and Suggestions

Green consumer stratifications are divided into four segments, i.e. conventional consumers, green consumers, greener consumers, and the greenest consumers. Stratification is distinguished based on interests, attitudes, real activities, and awareness of environmental sustainability. Stratification of green consumer in this study is different from the one in the other studies in which approaches and variables used are different.

The differences of consumer education can significantly show the stratifications of green consumers. This is understandable because variable of education cannot be separated from consumers' knowledge of environmental sustainability. Therefore, the knowledge is used as one of the variables to stratifying the consumers.

The preferences on each stratifications of the green consumers are different in terms of satisfaction strategies which is the psychological benefit of the furniture. However, they have the same preferences in terms of functional benefits. In terms of safety strategies, they also have different preferences. Meanwhile, in terms of socialization, there are some similarities which are tendency to choose television and newspapers as media of socialization. On the other hand, there are also some differences in preferences of strategy regarding to concept of socialization which leads to the interaction or lack of interaction between consumers and producers. The conventional and green consumers prefer to choose ATL as the media for socialization, while the greener and greenest consumers prefer to choose BTL as the media. However, each consumer stratifications have similar preference toward sustainable strategies and government policy. They tend to choose national institution of LEI and subsidies of tax reduction.

Green marketing strategies on each stratification consumer is formulated based on the preference of consumer stratification. The purposes of these strategies are penetration not only to consumers who do not have an awareness of environmental sustainability

but also to consumers who already have strong tendency towards environmental sustainability.

The findings of this study are the stratification of green consumers and the preference on each consumer stratifications. In addition, it is found that: First, the knowledge is not the main strength in raising awareness to purchase green products in order to make efforts in environmental sustainability. The strength that can increase it are environmentally friendly attitudes, interests and lifestyles. Secondly, greener consumer, greenest consumer and higher consumer stratification do not consider premium price to making decision in purchasing furniture when information of ecolabel-certified furniture has already been received from the manufacturers or other parties.

For further research, the structure of respondents should be expanded to present better the actual condition of the population and can reflect the population structure in Indonesia.

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