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PREFACE

The activities of the International Conference is in line and very appropriate with the vision and mission of the UBL to promote training and education as well as research in these areas.

On behalf of the First International Conference of Engineering and Technology Development (ICETD 2012) organizing committee; we are very pleased with the very good responses especially from the keynote speakers and from the participants. It is noteworthy to point out that about 45 technical papers were received for this conference

The participants of conference come from many well known universities, among others: Universitas Bandar Lampung, International Islamic University Malaysia, University Malaysia Trengganu, Nanyang Technological University, Curtin University of Technology Australia, University Putra Malaysia, Jamal Mohamed College India, ITB, Mercu Buana University, National University Malaysia, Surya Institute Jakarta, Diponegoro University, Unila, Universitas Malahayati, University Pelita Harapan, STIMIK Kristen Newmann, BPPT Lampung, Nurtanio University Bandung, STIMIK Tarakanita, University Sultan Ageng Tirtayasa, and Pelita Bangsa.

I would like to express my deepest gratitude to the International Advisory Board members, sponsors and also welcome to all keynote speakers and all participants. I am also grateful to all organizing committee and all of the reviewers which contribute to the high standard of the conference. Also I would like to express my deepest gratitude to the Rector which give us endless support to these activities, such that the conference can be administrated on time.

Bandar Lampung, 20 Juni 2012

Mustofa Usman, Ph.D
ICETD Chairman

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The First International Conference in
Engineering and Technology Development
(ICETD 2012)

UNIVERSITAS BANDAR LAMPUNG
Bandar Lampung, Indonesia
June, 20-21 2012

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Analysis of Factors Influencing Consumer Behavior Bring Their Own Shopping Bag (Case Study Kecamatan Tembalang)

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Abstract— People can start with "bring your own shopping bag" as a green purchasing behavior to build the awareness of reduce the usage of plastic bags in order to protect the environment. There are some predictors that can be influenced the green purchasing behavior, i.e. social influence, environmental attitudes, environmental concern, perceived seriousness of environmental problems, perceived seriousness of environmental behavior, perceived environmental responsibility, concern for self-image in environmental protection, and the government's role. All predictors not influence directly to the green purchasing behavior. There is one variable that mediating between all predictors with the green purchasing behavior, namely green behavior intention. Besides that, the significant influence of all predictors of green purchasing behavior can be different from one place to another place. Seeing these phenomena, this study aims to determine which predictor that influence the green purchasing behavior of community in the Kecamatan Tembalang to carrying their own shopping bag which is mediated by green behavior intention. The proposed model that use in this study is tested via a questionnaire collected from 100 respondents. After questionnaire collected, the Partial Least Squares (PLS) approach was used to analyze the research model of this study. The results of this study showed that green behavior intention has significant impact on green purchasing behavior and green behavior intention of peoples in Kecamatan Tembalang is positively influenced by three predictors i.e. of environmental attitudes, perceived seriousness of environmental problems, and concern for self-image in environmental protection. The result of this study also showed that the perception of concern for the environment is influenced by occupation. Finally, based on some predictors that influence green behavior intention of peoples in Kecamatan Tembalang, this study proposes a number of strategies that can reduce plastic bag usage by Tembalang communities, namely: informational strategy, consequence strategy, and structural strategy.

Keywords—plastic bag, bring their own shopping bag, behavior, PLS

I. INTRODUCTION

According to Mattilain [1], plastic shopping bag is something that so close to people's daily lives. Plastic shopping bags are normally used in supermarkets, food packaging, fast food restaurants, service stations, convenience stores, liquor

stores and other shops. Most of the people are not wise in the use of plastic shopping bag. They just throw away their plastic shopping bag after use it, although there are some people who use it again when they get shopping. In fact, excessive use of plastic shopping bag is considered hazardous for the environment, because it takes too long for the bag to mix with nature and the bag will not deplete in the soil and so it damages the marine organism in the oceans.

"Bring Your Own Bag (BYOB)" as green purchasing behavior is a small step to reduce waste from plastic shopping bags because this step will reduce people's habit to use plastic bags when they get shopping. The force of "going green" is now extending to the Asian region, where environmental threats are alarming local governments and citizens as in [2]. Example of country that has tried to apply the BYOB's program is Singapore. Since 2007, Singapore has been conducting a campaign in which consumers have to pay an extra fee if they want to use plastic shopping bags. On the first day, this campaign was successful in reducing the usage of plastic as much as 100.000 units and selling 200.000 units non-plastic bags that can be used repeatedly, and declining the amount of consumption of plastic bags up to 60% as in [3].

The BYOB behavior as green purchasing behavior is influenced by several predictors, namely: social influence, environmental attitudes, environmental concern, perceived seriousness of environmental problems, perceived seriousness of environmental behavior, perceived environmental responsibility, concern for self-image in environmental protection, and the government's role as in [5], [6]. According to [6], all predictors not influence directly to the green purchasing behavior. There is one variable that mediating between all predictors with the green purchasing behavior, namely green behavior intention. In fact, the result of previous study showed that influence of several predictors of green purchasing behavior can be different from one place to another place. Study that conducted by [4] in Malaysia shows that the best predictor for green purchasing behavior is environmental attitude followed by perceived environmental responsibility, environmental concern, perceived seriousness of environmental problem, perceived effectiveness of environmental behavior, and government's role; but,

according to [5], even though all predictors influenced the green purchasing behavior but independently only three predictors had the significant influence, namely: environmental concern, perceived seriousness of environmental problems, and perceived environmental responsibility. For demographic variables, [4] found that only age group is the significant variable in explaining the environmental factors. Meanwhile, [5] found that gender (differences between male and female) is insignificant variable with regards to environmental concern, perceived seriousness of environmental problems, and perceived environmental responsibility. Seeing these phenomena, this study aims to determine which predictors that influences the green purchasing behavior of communities in the Kecamatan Tembalang to carrying their own shopping bag which is mediated by green behavior intention.

II. LITERATURE REVIEW

This section will explore green purchase behavior and the Theory of Reasoned Action (TRA) in various literatures.

A. Green Purchasing Behavior

According to [7] there are four segments of consumers based on cognitive perceptions and risk/benefit to the environment based on consumption habits, namely: conventional consumers, emerging green customers, environmentally green consumers, and price sensitive customers. Conventional consumers, does not see the harm in purchasing current product offering and therefore, are not concerned with the environment. Emerging green consumers acknowledge the environmental benefit of purchasing a green product but shop out of convenience. Environmentally green consumers actively seek out environmentally-friendly goods in order to behave in accordance with their individual environmental belief despite higher prices, inconvenience, or lower quality. The last groups, price sensitive green customers, have concern for the environment but are unwilling to spend extra money to consume green products. These groups would actively purchase green goods if price gap is not a factor.

According to Busseri, Lefcourt, and Kertonin [8], individuals who purchased environmentally friendly and recycled goods were not necessarily the same with the group that's willing to pay more for green products. However, both the number of consumers aware of and trying to reduce environmental problems has been growing. Customers may partly purchase environmentally friendly goods due to the idea of self-fulfillment, which provides consumers with favorable attitudes for environmental improvement.

There are many predictors were contribute to drive consumer choice in regards to purchasing environmentally friendly products. According to [4] and [5], these predictors can be grouped into demographic profile, social influence, environmental attitudes, environmental concern, perceived seriousness of environmental problems, perceived effectiveness of environmental behavior, perceived

environmental responsibility, concern for self-image in environmental protection, and the government's role.

Demographics

Based on past demographic profiling, green consumers generally fall into the following category: education level, gender, age, race, occupation, and level of income as in [4]. Referring some previous research, we can say that most demographic profile studies done on the relationship with the behaviors of green consumers is still questionable.

- **Education level** - Sinnappan and Rahman [4] found there is no relationship between education levels of people in Malaysia with education level, although most demographic profile studies done on the relationship between education level and the behaviors of green consumers have been positively correlated as in [9]. Example of studies that found a positive relationship between education level and the behaviors of green consumers is done by Arbuthnot, Schwartz and Miller, and Newell and Green as in [9].
- **Gender** - In general, researchers argue that females are more likely than males to be ecologically conscious. In regards to the relationship between gender and environmental concern, MacDonald and Hara found that there is a significant relationship between gender and environmental concern. More specifically, studies done by Tikka, Zeleznyet.al, Stern et.al, and Lee found that female showed more positive attitudes compared to the males. In contrast, Samdahl and Robertson and Chen and Chai found there are no significant differences among males and females in environmental attitude or green purchasing behavior as in [9], [4]. Irawan and Darmayanti [5] also found there were no significant gender differences between male and females with regards to Environmental Concern, Perceived Seriousness of Environmental Problems, and Perceived Environmental Responsibility.
- **Age** - Liere and Dunlap found that the relationship between age and green sensitivity and behavior is significantly and negatively correlated as in [9]; but, Sinnappan and Rahman [5] found that age group is significantly and positively correlated with the antecedent of green purchasing behavior. Another study, McEvoy in [9] found no significant relationship between age and green attitudes and behavior
- **Income level** - Zimmer found significant relationships between income and environment attitudes and behavior, while Robbers found no significant relationship between income and environmental concerns as in [9]. Sinnappan and Rahman [4] also found no relationship between income level and green purchasing behavior.

Social influence

Referring to [10], social influence occurs when individual's thoughts or actions are affected by other people. Social influence research can be traced back to Hyman in the year 1942, who first elaborated the term "reference group" when he asked respondents which individuals or groups they

compare themselves as in [11]. According to [12], the reference groups not only of the groups that an individual has a frequent contact with (such as family members, work associates, friends, classmates, etc.), but also include the groups that an individual does not have a membership in or a direct contact with, such as certain expected groups or people in a certain social level. In his study, Lee [2] found that social influence was the most important predictor of Hong Kong's adolescents green purchasing behavior. Different with the result of study that conducted by [2], study that conducted by [4] and [5] found an insignificant relationship between social influence and green purchasing behavior.

Environmental attitudes

Environmental attitudes are related to environmental problems. Environmental attitudes have been defined as “the collection of beliefs, affect, and behavioral intentions a person holds regarding environmentally related activities or issues” as in [13]. There are two types of environmental attitudes have been used in previous literature, namely attitudes toward the environment, and attitudes toward ecological behavior as in [14]. According to Tuna in [15], the effects of individual factors on environmental attitudes have been empirically examined since the 1970s. Literature suggests that age and education are two of the best explanatory variables related to environmental attitudes. Almost all research on environmental attitudes found that highly educated respondents always have more pro-environmentalist values than lower educated respondents. In regards to the effect of environmental attitudes, finding suggests that attitudes are the most consistent predictor of pro-environmental purchasing behavior. Simmons and Widmar in [9] found a significant relationship between environmental concern and ecologically responsible behavior in case of recycling. Most recently, study that conducted by [16] found that Egyptian consumer's attitude towards green purchase can influence their green purchase intention and affecting their green purchase behavior in a direct manner. Study that conducted by [2] and [4] also found that environmental attitude has a positive influence to green purchasing behavior. Difference with previous study, study that conducted by [5] found an insignificant relationship between environmental attitude and green purchasing behavior.

Environmental concerns

According to Weigel in [17], environmental concern can be taken as an attitude towards facts, one's own behavior or other's behavior with consequences for the environment. More recently, studies that conducted by [2] found that environmental concern is the second top predictor of green purchasing behavior. In line with those found by [2], study that conducted by [18] also found that environmental concern factor was strongly related to each of three item-based environmental factors, i.e.: the importance of environmental protection, worried about the environment, and environmentally conscious. Sinnappan and Rahman [4] and Irawan and Darmayanti [5] also found the significant

relationship between environmental concern and green purchasing behavior.

Perceived seriousness of environmental problems, perceived effectiveness of environmental behavior, perceived environmental responsibility

According to [2], teenagers in Hong Kong perceived the seriousness of environmental problems as the least important factor in influencing the green purchasing behavior. This is because [2] found that Asian people rate environmental problems as more severe than those who live in western countries. More recently, studies that conducted by [4] and [5] found that the perceived seriousness of environmental problems was the main predictor of green purchasing behavior.

The perceived effectiveness of environmental behavior means the thinking of the respondents that how much they can contribute to the environment through their actions. Literature showed it to be positively related to purchase intention of the respondents as in [2], [19], [4]. Difference with previous study, Irawan and Darmayanti [5] found an insignificant relationship between the perceived effectiveness of environmental behavior and green purchasing behavior.

Study that conducted by [2], [4], and [5] found that perceived environmental responsibility was one of the important predictors that affect green purchasing behavior.

Concern for self-image in environmental protection

People's decisions are swayed by self-image motives in that whatever decision they reach must honor and affirm a flattering image of self. Self-image has been described as one's description of oneself in particular roles and situations as in [20]. According to [2], concern of self-image in environmental protection was the third predictor of green purchasing behavior among adolescents in Hong Kong. Different with a study that conducted by [2], study that conducted by [4] and [5] failed to prove that concern of self-image in environmental protection was one of important predictors of green purchasing behavior.

Government's role

There are contrasting result between Japan, Taiwan, and Malaysia with regard to government role towards the green purchasing behavior. In Japan and Malaysia, the government is playing a major role in endorsing green purchasing; meanwhile, in Taiwan, even though there was a strong support from the government for green marketing, the consumption of green products has decreased due to poor quality as in [4].

B. Theory of Reasoned Action

Referring to [21], the theory of planned behavior is an extension of the theory of reasoned action made necessary by the original model's limitations in dealing with behavior over which people have incomplete volitional control. A central factor in The Theory of Planned Behavior is the individual's *intention* to perform a given behavior. Intentions are assumed to capture the motivational factors that influence a behavior; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior. Many studies have shown a considerable difference between intention and actual behavior,

like a study that conducted by [22]. Moreover, market researchers and experts have found that people's stated intentions of paying a price premium for environmentally friendly products do not necessarily translate into action, in the case of sustainable energy source that study by Nakarado as in [9].

III. METHOD OF RESEARCH

This section will explore conceptual model, hypothesis of research, sample and data collection.

A. Conceptual Model

This study based on a conceptual model from [4] and then modified by adding one variable which proposed by [6]. According to [6], all predictors that mentioned by [4] not influence directly to the green purchasing behavior. There is one variable that mediating between all predictors with the green purchasing behavior, namely green behavior intention. The conceptual model used in this research can be seen in Fig. 1.

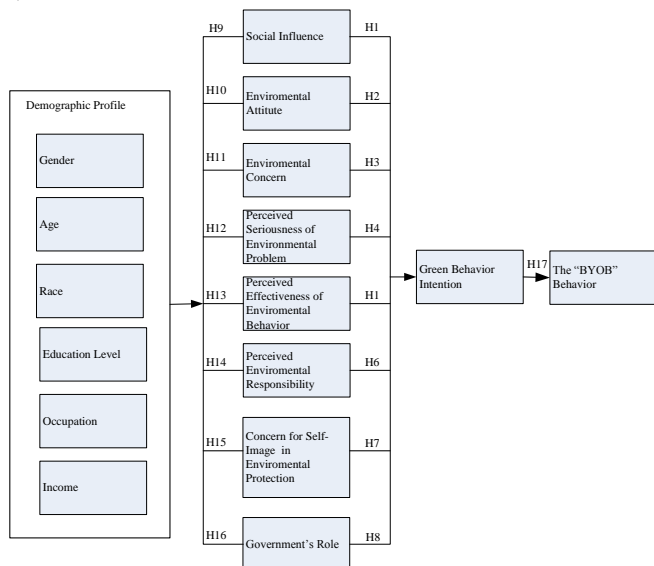


Fig. 1 Conceptual Model

- Hypothesis 1 There is positive significant relationship between social influence and green behavior intention
- Hypothesis 2 There is positive significant relationship between environmental attitude and green behavior intention
- Hypothesis 3 There is positive significant relationship between environmental concern and green behavior intention
- Hypothesis 4 There is positive significant relationship between perceived seriousness of environmental problems and green behavior intention
- Hypothesis 5 There is positive significant relationship between perceived effectiveness of environmental behavior and green behavior intention
- Hypothesis 6 There is positive significant relationship between perceived environmental responsibility and green behavior intention
- Hypothesis 7 There is positive significant relationship between

- concern for self-image in environmental protection and green behavior intention
- Hypothesis 8 There is positive significant relationship between governance's role and green behavior intention
- Hypothesis 9 There is positive significant relationship between demographic profile and social influence
- Hypothesis 10 There is positive significant relationship between demographic profile and environmental attitude
- Hypothesis 11 There is positive significant relationship between demographic profile and environmental concern
- Hypothesis 12 There is positive significant relationship between demographic profile and perceived seriousness of environmental problem
- Hypothesis 13 There is positive significant relationship between demographic profile and perceived effectiveness of environmental behavior
- Hypothesis 14 There is positive significant relationship between demographic profile and environmental responsibility
- Hypothesis 15 There is positive significant relationship between demographic profile and concern for self-image in environmental protection
- Hypothesis 16 There is positive significant relationship between demographic profile and governance's role
- Hypothesis 17 There is positive significant relationship between green behavior intention and the "BYOB" behavior

B. Questionnaire and Data Collection

Before the actual research, pre-test was performed to 30 respondents to test the reliability and validity of items of the questionnaire. The questionnaires were divided into two parts. First part was the general demographic questions such as gender, age, race, education level, occupation, and income. The second part was questioned to represent the predictor of green behavior intention and the "BYOB" behavior which consists of 40 items measured by 6 point Likert scale.

Data were collected from a survey in Kecamatan Tembalang and at the end of the data collection period, a total of 100 usable questionnaires was used for data analysis. A demographic profile of 100 respondents can be described as seen in Table 1.

TABLE I
DEMOGRAPHIC PROFILE OF 100 RESPONDENTS

Demographic profile	Category
Gender	i) Women (54%) ; ii) Man (46%)
Age	i) 17 ≤ x < 27 year (30%); ii) 27 ≤ x < 37 year (37%); iii) 37 ≤ x < 47 year (33%)
Race	i) Java (62%); (ii) Non-Java (38%)
Education level	i) Elementary School (8%); ii) Junior High School or Senior High School (32%); iii) College (60%)
Occupation	i) Student (29%); ii) Civil Servants (30%); iii) Private Employee (20%); iv) Entrepreneur (21%)
Level of income	i) Less than Rp. 1.000.000 (30%); ii) Rp.1.000.000 ≤ x < Rp.3.000.000 (28%); iii) Rp.3.000.000 ≤ x < Rp. 5.000.000 (22%); iv) More than Rp.5.000.000 (20%)

IV. RESULT

This section will explore the result of data processing which is using Partial Least Square (PLS) method and Analysis of Variance (ANOVA). In the analysis by PLS, there are three things to do. First, describes the path diagram of the conceptual model of research. Second, assessing the outer model or measurement model, and the third, assessing the inner model or structural model. Assessment of outer model is a test of reliability and validity of research variables. There are three criteria to assess the outer model, i.e.: the convergent validity, discriminant validity, and composite reliability. Assessment inner model or structural model made to look at the relationship between constructs, significance values, and R-square of the research model as in [23].

A. Path Diagram of the Conceptual Model

Path diagram for a model the conceptual model can be seen in Fig.2

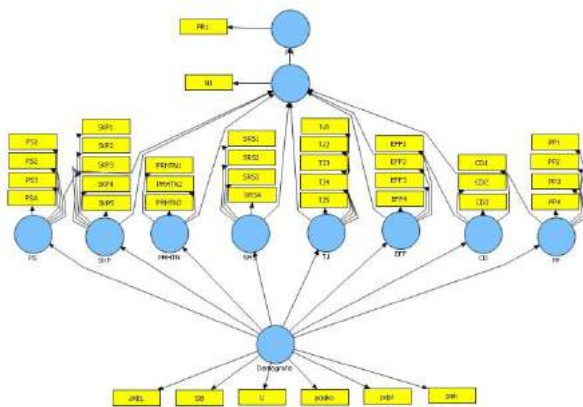


Fig. 1 Path Diagram of Conceptual Model

B. Assessing the Outer Model (Test of Reliability and Validity)

There are three criteria to assess the outer model, namely: convergent validity, discriminant validity, and composite reliability.

1) *Convergent validity*: Convergent validity captures some of the aspects of the goodness of fit of the measurement model, i.e., how well the measurement items relate to the constructs. Convergent validity is shown when each measurement item correlates strongly with its assumed theoretical construct as in [24]. In convergent validity, we say that an item has good relation with the construct if a loading factor of an item is 0,500 or more as in [23]. Results of data processing indicated that two items from social influence, one item from environmental concern, three items from perceived seriousness of environmental problem, two items from perceived environmental responsibility, two items from perceived effectiveness of environmental behavior, one item

from concern for self-image in environmental protection, one item from government's role, and four items from demographic profile (gender, age, race, and education level) which have to be removed because its loading factor was below the minimum value. Totally, there were 15 (fifteen) items which must be removed and after removed, all items have a loading factor greater than 0,500.

2) *Discriminant validity*: Discriminant validity also captures some of the aspects of the goodness of fit of the measurement model, i.e., how well the measurement items relate to the constructs. Discriminant validity is shown when each measurement item correlates weakly with all other constructs except for the one to which it is theoretically associated as in [24]. In this study, we tested the discriminant validity based on Fornell and Larcker criterion. This criterion points out that the discriminant validity is established if the square root of the average variance extracted from each construct is greater than the correlation between the construct and the other constructs as in [25]. The final result of the discriminant validity test showed that each item from each construct or each predictor can clearly be distinguished from other constructs or other predictors.

3) *Composite reliability*: Composite reliability is used to establish internal consistency reliability. In the PLS analysis, it is required that the composite reliabilities of each construct is more than 0,600 as in [26]. After removing 15 (fifteen) items which have loading factor less than 0,500, composite reliability of each of the 8 (eight) constructs/predictors (social influence, environmental attitudes, environmental concern, perceived seriousness of environmental problems, perceived seriousness of environmental behavior, perceived environmental responsibility, concern for self-image in environmental protection, and the government's role) was above the minimum value.

Overall, the results of the convergent validity, discriminant validity and composite reliability suggest that the measurement model meets the standard of having good explanatory power.

C. Assessing the Inner Model

The inner model is assessed by examining the path coefficients, t-value, and R-square. T-value used as criterion to accept or reject the hypothesis which containing the statement about the relationship between second order construct. This study was using alpha equal to 0,05. Based on that, the relationship between second order construct will be accepted (or the hypothesis will be accepted), if t-value is above 1,667. Path coefficient and t-value between second orders construct from the conceptual model can be seen in Table 2.

TABLE II
PATH COEFFICIENT, T-VALUE, AND R-SQUARE BETWEEN SECOND
ORD CONCEPTUAL LUCT FROM THE CONCEPTUAL MODEL

Hypothesis	Path Coeff.	T-Stat.	Conclusion
Hyp. 1: Social influence → green behavior intention	-0,066	1,460	Rejected
Hyp. 2: Environmental attitude → green behavior intention	0,719	12,925	Accepted
Hyp. 3: Environmental concerns → green behavior intention	-0,106	3,854	Rejected
Hyp. 4: Perceived seriousness of environmental problem → green behavior intention	0,089	2,666	Accepted
Hyp. 5: Perceived effectiveness of environmental behavior → green behavior intention	0,023	0,639	Rejected
Hyp. 6: Perceived environmental responsibility → green behavior intention	0,073	1,284	Rejected
Hyp. 7: Concern for self-image in environmental protection → green behavior intention	0,092	2,961	Accepted
Hyp. 8: Governance's role → green behavior intention	-0,026	0,839	Rejected
Hyp. 9: Demographic profile → social influence	-0,070	0,765	Rejected
Hyp. 10: Demographic profile → environmental attitude	0,033	0,339	Rejected
Hyp. 11: Demographic profile → environmental concern	0,131	1,273	Rejected
Hyp. 12: Demographic profile → perceived seriousness of environmental problem	0,283	4,061	Accepted
Hyp. 13: Demographic profile → effectiveness of environmental behavior	-0,064	0,654	Rejected
Hyp. 14: Demographic profile → environmental responsibility	-0,034	0,487	Rejected
Hyp. 15: Demographic profile → concern for self-image in environmental protection	0,182	2,629	Accepted
Hyp. 16: Demographic profile → governance's role	0,189	1,894	Accepted
Hyp. 17: Green behavior intention → "BYOB" behavior	0,790	30,759	Accepted

Based on Table 2, there are three predictors which have influence on green behavior intention, namely an environmental attitude (coefficient value = 0,719, t-value = 12,925), concern for self-image in environmental protection (coefficient value = 0,092, t-value = 2,961); and perceived seriousness of environmental problem (coefficient value = 0,089, t-value = 2,666). It can be concluded that, for the case study in Kecamatan Tembalang, the results of this research support the hypothesis 2, hypothesis 4, and hypothesis 7.

Among three predictors which have influence on green behavior intention, environmental attitude is found to be the top predictor of green behavior intention. This result is in line with the result of study that conducted by [4], but different with the result of study that conducted by [2] and [5]. Referring to [2], this predictor was only ranked as the second last predictor as she believes that adolescents have higher emotional attachments compared to rational attachments. Referring to [5], this predictor was not having a significant influence on green purchasing behavior.

Concern for self-image is the second top predictor of green behavior intention. This result is different with the result of study that conducted by [2], [4], and [5]. Referring to [2], concern of self-image in environmental protection was only the third predictor of green purchasing behavior among adolescents in Hong Kong. Referring to [4] and [5], concern of self-image in environmental protection was not having a significant influence on green purchasing behavior.

Perceived seriousness of environmental problem is the third predictor of green behavior intention. This result contradicts to the result of study that conducted by [2] and different with the result of study that conducted by [4] and [5]. Lee [2] found negative relationship and believes that is due to desensitization in which depressing visuals on the environmental problems would create high ignorance among adolescents in Hong Kong. Referring to [4], perceived seriousness of environmental problem was the fourth predictor of green purchasing behavior and referring to [5], perceived seriousness of environmental problem was the second predictor of green purchasing behavior.

This study failed to prove that the perceived effectiveness of environmental behavior, perceived environmental responsibility, and governance's role have a significant effect on green behavior intention. Social influence surprisingly has a negative relationship with green behavior intention but the relationship was insignificant (t-value < 1,667). Beside social influence, this study also found that environmental concern has a negative relationship with green behavior intention and the relationship was significant. Referring to [2], this significant negative relationship between environmental concern and green behavior intention could be happening because of desensitization in which depressing visuals on the environmental problems would create high ignorance among people in Kecamatan Tembalang. Referring to [26], negative relationship between environmental concern and green behavior intention could be happening because of keen skeptics's people. Keen skeptics are those people who have a high level of environmental concern, together with a high level of skepticism. They are very keen on environmental issues but very skeptical about the environmental claims which negatively influence their green purchase behavior.

The R-square between all predictors (social influence, environmental attitudes, environmental concern, perceived seriousness of environmental problems, perceived seriousness of environmental behavior, perceived environmental responsibility, concern for self-image in environmental protection, and the government's role) and green behavior

intention was 0.696. It indicated that all predictors influenced the green behavior intention by 69.6%.

Based on Table 2, demographic profile only had effect on perceived seriousness of environmental problem (coefficient value = 0,283, t-value = 4,061), concern for self image in environmental protection (coefficient value = 0,182, t-value = 2,629), and governance role (coefficient value = 0,189, t-value = 1,894). Although the demographic profile gave effect on three predictors, this study only considers the effect of demographic profile on two predictors, i.e. perceived seriousness of environmental problems and concern for self-image in environmental protection. It was because this study failed to find the significant positive influence of governance's role in green behavior intention.

ANOVA test which provided a statistical test to compare the means of the group only conducted to test of whether or not the means of the perceived seriousness of environmental problems and the means of concern for self image in environmental problem were all equally for different occupation and education level. In this study, ANOVA test only conducted to find differences in occupation and education level, because the other factors (gender, age, race, and education level) have been removed from demographic profiles. The result of the ANOVA test found no significant occupation differences between student, civil servants, private employee, and entrepreneur with regards to the perceived seriousness of environmental problem. The result of ANOVA test also found no significant level of income differences between incomes less than Rp. 1.000.000, Rp.1.000.000 until Rp.3.000.000, Rp.3.000.000 until Rp. 5.000.000, and incomes more than Rp.5.000.000 with regards to the perceived seriousness of environmental problems and concern for self image in environmental protection. In this study, result of ANOVA test only found a significant occupation differences between student, civil servants, private employee, and entrepreneur with regards to concern for self image in environmental protection.

Lastly, as seen in Table 2, this study found a positive significant relationship between green behavior intention and the "BYOB behavior" (coefficient value = 0,790, t-value = 30,579). The R-square between green behavior intention and the "BYOB" behavior was 0,624. It indicates that green behavior intention influenced the "BYOB" behavior by 62,4%.

V. CONCLUSION

The "BYOB" behavior of the people in Kecamatan Tembalang is influenced by green behavior intention and this intention is influenced by three predictors, namely: environmental attitude, concern for self-image in environmental protection, and perceived seriousness of environmental problem. Among the three of predictors, only predictor concern for-image in environmental protection is influenced by demographic profile which called occupation.

There are three strategies that can be applied based on main predictors which is influencing the "BYOB" behavior of

people in Kecamatan Tembalang, namely: informational strategy, consequence strategy, and structural strategy.

First, informational strategies can be done by providing information on descriptive norms related to environmental conservation, through oral and role models. This strategy is considered sufficient to explain what behavior that can be developed by people in Kecamatan Tembalang to reduce the use of plastic bags. The second strategy is consequence strategy. This strategy aims to change behavior of people in Kecamatan Tembalang by giving them some rewards and punishments. There are several alternatives proposed which is related to rewards and punishments, i.e.: give some discount to people who bring their own shopping bag and ask additional charge to people who ask for their purchases wrapped in plastic bags from the store where they shop. Each alternative has advantages and disadvantages and we can do further research using Analytical Hierarchy Process (AHP) to find out which alternative is the most appropriately applied. Lastly, we can apply a structural strategy to increase the "BYOB" behavior of people in Kecamatan Tembalang. In this study, the application of structural strategy can be done to increase the influence of predictors concern for self-image in environmental protection because this predictor is different for each occupation. A strategy to increase the concern for self-image in environmental protection can be different from student, civil servant, private employee, or entrepreneur.

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