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Green consumerism in Sri Lankan Perspective: An Application and Extension of Theory of Planned Behavior

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Abstract

In globe, resources are limited and human needs are unlimited in nature. In this way, people are attempting to fulfill their needs and wants with limited resources. Due to that, conflicts take place between limited resources and unlimited needs. In line with above argument, resources in the world should be utilized in a proper way. Along the line of this argument, the present study focuses on green consumerism in Sri Lankan context. Theory of Planned Behavior was used and modified in the context of green consumerism. In this way, seven antecedents as environmental attitude, environmental concern, perceived consumer effectiveness, health consciousness, social influence, media influence and perceived government initiatives were incorporated in to the proposed model. Exploratory Factor Analysis and Hierarchical Regression Analysis were used to approach the research questions in this study frame. Findings revealed that, green purchase intention is influenced by environmental attitude, perceived consumer effectiveness and health consciousness. In contrast, green purchase intention was not significantly influenced by environmental concern, social influence, media influence and perceived government initiatives. Based on the research findings, researchers suggested the green marketers to use the marketing communication strategy to induce the young consumers mind towards green products. In addition, governmental bodies and policy makers should draft the specific policy to induce the green consumerism in Sri Lankan Stand point. This might be the green signal to the sustainable development and it's prosperous.

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1 Introduction

There is surprising that, marketing literature has already paid relatively scant attention to the green marketing strategy in relation to marketing, management and operation with supply chain management concepts (Chabowski et al., 2011). Further, research on green purchase intention and behavior has not been fully investigated in the developed and emerging countries. Therefore, marketing scholars have the potential opportunities to find out the research area which is linked with green consumerism (Kim & Choi, 2005; Peattie & Cane, 2005; Lee, 2008 and Akter, 2012). Studies on pro-environmental behavior or green purchase behavior differ from the general purchase – related consumer behavior. Generally, consumers assess the cost and benefits of the product and services, in which, individual benefits are taken major part. Meanwhile, today consumers are more educated and informed than ever, and they have the tools to verify companies' claims and seek out superior alternatives (Kotler , 2011). In contrast, green purchase behavior considers the both individual and social benefits relating to product & service quality, environmental concern & attitude, nature and its future, resource allocation etc (McCarty & Shrum ,2001).

Based on above facts, Cronin et al. (2011) suggest to ground the research on the effects of consumer perceptions of green marketing strategies toward green behaviors, which might give the marketing cues to the organizations in the hypercompetitive environment. Meantime, Consumers in the developed countries like United States of America, United Kingdom, Europe region etc and newly industrial countries like China, Singapore and Malaysia have the awareness and willingness towards green products (Carrigan & Attalla , 2001 ; Lee, 2008; Han et al., 2009 and Suki , 2013). Further, general people in South Asian countries like India, Pakistan and Sri Lanka are becoming conscious towards green practices in their purchase decision making (Lee, 2008; Kumar, 2012; Rehman & Bin Dost, 2013 and Samarasinghe , 2012 a).

In the South Asian Region, Sri Lanka is viewed as the small one. But, nation has its own beauty in terms of natural resources and its long term benefits to people in Sri Lanka as whole. In addition, country has its unique cultural values, beliefs, customs and norms. Those are also incorporated with modern science to address the challenges regarding socio, economic and ecological stand points, while at the same time, conserving the island's richly endowed natural capital (Gunatilleke, 2013). Even though, Sri Lankan's environmental quality is in the question mark.

Several reasons as high level of pollution, lack of proper methods to minimize pollution & recycling, fewer amounts of eco-friendly products etc are far behind it, when we compare with the developed countries (Samarasinghe , 2012 a). Further, Research evidences document that citizens in Asian societies are increasingly becoming conscious of alarming environmental problems and government policies & business strategies (Samarasinghe , 2012 b). Therefore, studies on green purchase intention in Sri Lankan perspective basically provide the direction to find out the antecedents of the green purchase intention in terms of socio and psychological view point, which may differ from the developed countries. In line with above facts, researchers frame the objective of the study is to explore the factors influencing on green purchase intention.

2 Literature Review

2.1 Green Purchase intention and Underpinning theories

Especially in the motivational factor, intention is considered as the powerful predictor to influence the behavior ultimately. It means that, how hard people try to put the effort to perform the behavior. In other words, how much of an effort people are planning to exercise or how hard people are willing to perform the behavior. Based on the Ajzen (1991), the people who have the strong intention, they are more likely to perform their behavior. It means that strong intention leads to the behavior favorably. In this aspect, when customers show the strong intention toward the green product, they more likely transcend to perform the actual purchase.

Environmental awareness among consumers becomes the major topic, which pledges the scholars and researchers to focalize the research on green purchase intention and behavior. In line with this, the theories like the Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB) and Altruism & Pro-Social Behavior Theories are utilized by the researchers in the field of green consumerism to investigate the green purchase intention (Chan , 2001; Moe , 2007 and Samarasinghe, 2012 b).

2.2 Theory of Planned Behavior (TPB)

In 1991, Ajzen framed the Theory of Planned Behavior as the extended model, which was developed as the extension of the theory of reasoned action. Theory explains that high accuracy from attitudes toward the behavior, subjective norms and perceived behavioral control able to predict the intentions to perform behaviors of different kinds; and these intentions, together with perceptions of behavioral control, account for considerable variance in actual behavior

The Theory of Planned Behavior (Ajzen, 1991) presents intention dependent upon three factors: (1) The individual's attitude toward the behavior (2) Subjective norm and (3) Perceived behavioral control.

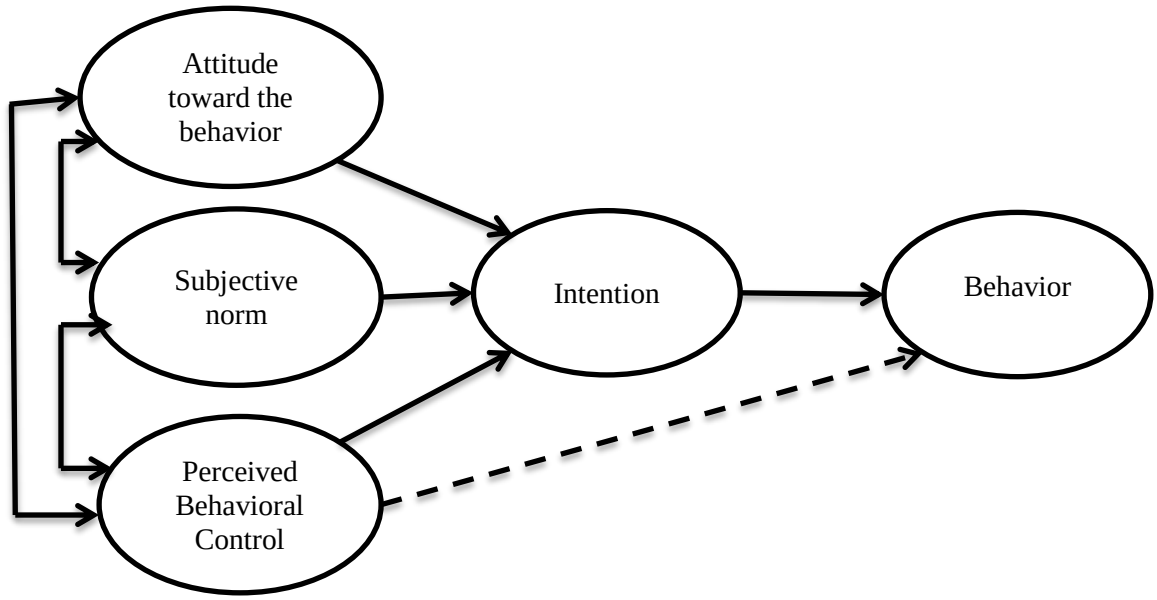

Figure 1: Theory of Planned Behavior

Attitude

Attitude towards performing behavior refers to perceptions of personal desirability to perform the behavior (Ajzen, 1991)**.** It depends on the expectations and beliefs about personal impacts of outcomes resulting from the behavior.

Subjective Norm

The TPB holds that subjective norm is a function of beliefs. If a person believes that his or her referents think that behavior should be performed, then the subjective norm will influence his or her intention to perform that particular behavior. The referents here refer to a group of people who are close to the individual, for instance family, peers, spouse, close friend, teachers and anyone considered important in the individual's life (Ariff et al., 2010).

Perceived Behavior Control

Perceived behavior control reflects the perceived ability to execute target behavior (Ajzen,1991). It relates to an individual's perception on the degree of easiness and difficulties in performing such behavior, and it is assumed to reflect past experience as well as anticipated obstacles **(**Ajzen & Driver, 1992). This construct

is affected by perceptions of access to necessary skills, resources and opportunities to perform the behavior. If an individual feels that he or she has control over the situational factors, he or she may develop the intention to perform the particular behavior. On the other hand, if an individual does not have control over the circumstances, he or she may have less intention to perform the particular behavior. Therefore, we can point that perceived behavior control influences intention to perform a behavior.

2.3 Theory of Planned Behavior and Green Purchase Behavioral Intention

Theory of Planned Behavior has been used in numerous studies in the consumer behavior towards green issues (Aertsens et al., 2009 and Arvola et al., 2008). In this way, based on the theory of planned behavior, Moe (2007) focuses the study on sustainability, study defines the green purchase intention as "selectively choosing products with less environmental impact when purchasing goods", which mean green consumer tend to purchase green product to reduce the harmful of environment. In addition, green purchase intention is defined as the probability and willingness of a person, which are directed to purchase the eco-friendly products over non green products in their purchase decisions. Further than, Beckford et al. (2010) explore that green purchase intention is a considerable predictor of purchase behavior towards green consumerism; it denotes that purchase intention is positively associated with the probability of a customer decision that he will buy green products. In the supportive way, Chan (2001) points that environmental concern is highly associated with intention which will lead to behavior towards green aspects finally.

In contrast, study findings of Ohtomo and Hirose (2007) reveal some interesting aspects that green consumer behavior is not influenced by the intention, in other words, green purchase intention doesn't provide the path for behavior. A person hold the environmental concern and knowledge doesn't put the effort to purchase green products, which issues are called or named as value – action gap. It means that, although the customers show the intention to purchase the green product, but they are not in the position to perform the actual performance. In line with above arguments, researchers in this study attempted to develop the comprehensive model to predict the green purchase intention by incorporating the unique factors as environmental attitude, environmental concern, perceived consumer effectiveness, health consciousness, social influence, media influence and perceived government initiatives. Integrating those unique dimensions might predict the green purchase intention strongly, which in turn lead behavior. In this way, gap between green purchase intention and behavior might be resolved by incorporating the above unique factors as the potential determinates of green purchase intention.

3 Development of Conceptual Model and Hypotheses: An Extension of Theory of Planned behavior

Accordingly, academic research in the green consumerism has centered on the identification of consumer motivation underlying pro environmental behaviors (Lee & Holden 1999). Even though, it is still difficult to predict consumer acceptance of pro-environmental behavior. Further, Green purchase behavioral intention (GPI) is studied in the light of such variables as Environmental Attitude (EA), Environmental Concern (EC), Perceived Consumer Effectiveness (PCE), Health Consciousness (HC) , Social Influence (SI), Media Influence(MI) and Perceived Government initiatives (PGI) in various studies (Chan & Lau, 2000; Kim, 2005; Peattie & Cane, 2005; Lee, 2008; Michaelidou & Hassan, 2008; Wahid et al., 2011; Kaufmann et al., 2012 and Mei et al., 2012). In line with above arguments, researchers in this study extend the Theory of Planned Behavior by integrating those mentioned unique factors as antecedents of green purchase intention. In addition to that, personal demographic factors (PDF) as gender, monthly income of family, family size, ethnicity and religion were considered as control variables. In short, researchers try to explore the boundary conditions of the Theory of Planned Behavior in the green consumerism domain.

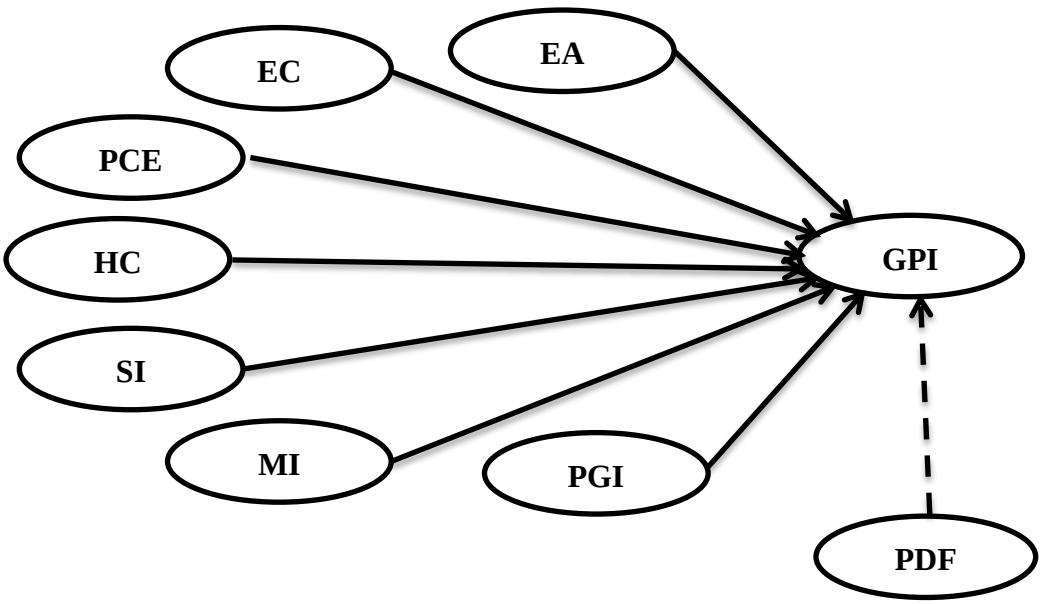

Figure 2: Conceptual Model for this Study

Environmental Attitude (EA)

Environmental attitude, which is defined as the individuals' value judgment of environmental protection ,which taps the individuals' cognitive assessment of the value of the environmental protection (Lee, 2008). Based on the above defined statements, Jobber (2007) and Mostafa (2007) discuss that the consumers' attitudes towards green purchase, which can influence their green purchase intention and directly affects their actual green purchase behavior. Hence the following is hypothesized:

H1: Environmental Attitude positively influences green purchase intention

Environmental Concern (EC)

Environmental concern denotes an individual's general orientation toward the environment and an individual's concern level towards environmental issues. Further, environmental concern is recognized as the useful predictor of environmentally conscious behavior (Kim & Choi, 2005; Lee, 2008; Kaufmann et al., 2012 and Wahid et al., 2011). In this way, consumers who have strong concern for the environment are more likely to purchase products as a result of their environmental claims than those who are less concerned about the environmental issues (Mainieri et al., 1997). Hence we hypothesize that:

H2: Environmental Concern positively influences green purchase intention

Perceived Consumer Effectiveness (PCE)

Bandura (1986) initiates the concept of self – efficacy in social learning theory. Similar to this concept, Perceived Consumer Effectiveness (PCE) is reflected as "the evaluation of the self in the context of the issue", differs from an attitude that reflects an evaluation of an issues (Tesser & Shaffer, 1990). In other words, it refers to the extent to which individuals believe that their actions make a difference in solving a problem. PCE is recognized as the useful predictor of green purchase behavior and also which is distinct form environmental concerns and attitudes (Ellen et al., 1991). Further, knowledge & direct and indirect experiences are considered as the determinants of PCE. And it varies with individuals as their personal knowledge and experiences differ (Brown, 1979 and Thompson, 1981). In that way, some believe is that, action lead to particular outcomes and thus bring about changes, while others have little confidence in their ability to make a difference. Thus, it is hypothesized that:

H3: Perceived consumer effectiveness positively influences green purchase intention

Health Consciousness (HC)

Generally, health consciousness denotes that how health concern is incorporated into daily activities. Further, promptness to undertake health actions is initiated and induced by the health conscious. Health conscious consumers hold the better level of awareness and concern about their wellness and are motivated to improve and maintain their health and quality of life (Newsom et al., 2005 and Kraft & Goodell, 1992). Earlier studies on health consciousness and green purchase show that, health concern is considered as the motive to induce the green purchase among consumers who have better level of awareness regarding to the healthy life and its benefits (Williams & Hammit, 2001). Hence the ensuing hypothesis is formulated:

H4: Health Consciousness positively influences green purchase intention

Social influence and Media Influence (SI and MI)

Individuals are associated with other people by presenting similar qualities which are identified as homophile in the social dynamic. In this context, Feick et al. (2003) document that, social network and product involvements are co-related. Commonly, young consumers are greatly influenced by their social network that they maintain (e.g. family, friends, coworker, etc.). Initially, they collect information from their social network and in the end they will decide about their brand choice .Interestingly, among young segments the media has also the huge impact on their purchase decision in the information technology era. In this view, social networking as Google, Facebook, twitter, Flickr, YouTube , etc. can influence the purchase intention of people to purchase for green products (Business Wire, 2009). Hence the following hypotheses are formulated:

H5: Social Influence positively influences green purchase intention
H6: Media Influence positively influences green purchase intention

Perceived Government initiatives (PGI)

Recent days, Government initiation to the environmental protection is taken the most prominent place to solve the problems in terms of resource allocation, pollution, global warming etc. In that view, initiative action taken by national government or support given to the theme like environmental consideration is referred as government initiation on environment conservation (Diekmeyer, 2008). Further, Pavan (2010) Suggests that public awareness on environmental issues should be promoted by government locally and internationally with various campaigns. In the supportive way, Punitha and Rahman (2011) indicate that government initiative is a strong predictor towards green purchasing behavior. Thus, it is hypothesized that:

H7: Perceived Government initiative positively influences green purchase intention

Personal Demographic Factors (PDF)

Variety of research in the past decades examines the factors and personality traits which influence the environmental issues in terms of purchase behavior. Freymeyer and Johnson (2010) discuss and investigate the importance of individual demographic characteristics in determining environmental activism. The characteristics as age, education, gender, socioeconomic status and residence are taken as the variables in the aforementioned study. The results indicate that, higher levels of education are correlated with higher participation in relatively simple environmental actions, such as making a financial contribution to an environmental organization or signing an environmental petition, the data are not in the place to support strong relationships based on age, gender, or residence. In addition, Kollmuss and Agyeman (2002) document that, Women, while less likely to have as high of levels of environmental knowledge compared to men, tend to be more emotionally connected to environmental issues and have a higher interest in making behavior changes to avoid environmental destruction. In the supportive view, Pickett-Baker and Ozaki (2008) find that, specifically with respect to purchasing behavior, women are generally more influenced by marketing strategies that utilize environmental messages. Thus, it is hypothesized that:

H8: Personal Demographic factors positively influences green purchase intention

4 Method

4.1 Sample

Study is directed towards green consumerism in the Sri Lankan context. Topic is new and considered as the emerging one in the marketing paradigm. Meanwhile, this study focuses to examine the purchase intention under the concept of green consumerism among young consumers as Management undergraduates in Sri Lankan stand point. General public and also young consumers might face the difficulties to understand the real facts in the green consumerism intensely due to the lack of knowledge in the emerging concept as green marketing (Conroy & Emerson, 2004 ; Lee, 2008; Lee, 2009; Tan & Yeap 2012; Kumar, 2012 and Vicente-Molina et al ., 2013). In line with this, researchers and scholars in emerging continent as Asia initiated the research on green consumerism among business and management undergraduates and graduates (Lee, 2008; Lee, 2009; Tan & Yeap 2012 and Kumar, 2012).

Generally, business and management graduates and undergraduates are considered as the valuable and potential customers with regards to purchasing capacity and long life span (Lee, 2008; Lee, 2009; Tan & Yeap 2012 and Kumar, 2012). Meanwhile, they can understand the real inside in the field of business and marketing, which are happening in and around the world. To be consistent with this, green consumerism in the marketing domain is also recognized as the new and emerging trend in the globalized level. Once undergraduates and graduates get the proper awareness concerning green consumerism and green marketing practices, they will be in the position to share the real facts behind the green or ecofriendly aspects to general public. In line with above facts, green culture among general public makes the revolutionary changes in the world of social marketing. Based on the overall underpinned reasons, management undergraduates in the Sri Lankan State Universities have been selected as the respondents for this study.

4.2 Study Context

The sample for this study covered 1325 Management undergraduates in twelve Sri Lankan State Universities (Jayepura, Peradeniya, Colombo, Kelaniya, Ruhuna, Eastern, South Eastern, Rajarata, Sabara, Wayamba, Uva Wellasa and Jaffna). Green consumerism in developing countries in the light of preference, usage and dispose of the products and services differs from consumers in developed countries (Lee, 2008). This is because the cultural, environmental and demographic factors of developing countries vary significantly from those of developed countries.

4.3 Sampling Method

Probability sampling method has been used in this study. Under the probability method, Proportionate stratified random sampling was applied to select the respondents from the population. It involves a process of stratification or segregation, followed by random selection of subjects from each stratum. The population is first divided into mutually exclusive groups that are relevant, appropriate, and meaningful in the context of the study (Sekaran & Bougie, 2010). In line with this, population is stratified in terms of state universities in nine provinces of Sri Lanka. In addition, proportionate (15%) was also used in the technique to select the respondents. Proportionate (15%) is statistically enough in the human behavioral studies under the Proportionate stratified random sampling method to come to the generalization (Hair et al., 2011 and Sekaran & Bougie, 2010).

Participants were approached within the university premises. They received information about the purpose of the survey, and they were assured of their anonymity. Paper – based survey were distributed to 2170 respondents. Of these, 1661 respondents responded to the survey and returned them. Of these, 336

surveys had missing data, and so were discarded. Table 01, presents the demographic profiles of the respondents.

Table 1: Demographic Profiles of the Respondents

Description		Frequency	Percent
Gender			
	Male	412	31.1
	Female	913	68.9
	Total	1325	100.0
Ethnicity			
	Sinhalese	1188	89.6
	Tamil	66	5.0
	Muslim	71	5.4
	Total	1325	100.0
Religion			
	Buddhism	1128	85.1
	Hindu	57	4.3
	Islam	71	5.4
	Christianity	69	5.2
	Total	1325	100.0
Monthly Income of Family			
	Less than Rs. 10 000	215	16.2
	Rs. 10 000 - Rs.30 000	636	48.0
	Rs. 30 000 - Rs. 50 000	307	23.2
	Over 50 000	167	12.6
	Total	1325	100.00
Family Size			
	1-3	206	15.5
	4-6	1065	80.4
	7 and above	54	4.1
	Total	1325	100.0

4.4 Measures and Instrument Development

A Paper – based survey instrument was designed from previously validated scales, however, these scales were modified to suit the Sri Lankan context, where appropriate. The scale of the antecedents of green purchase intention included 30 items under the seven dimensions as environmental attitude, environmental concern, perceived consumer effectiveness, health consciousness, social influence, media influence and perceived government initiatives. The scale of environmental attitude included five items adapted from Lee (2008), Wong et al. (2012) and Kumar (2012). Environmental concern was operationalized using four items from Kim and Choi (2005) and Lee (2008). Six items measuring perceived consumer effectiveness were adopted from Lee (2008), Kim and Choi (2005) and Chen (2007). The scale of health consciousness included five items adapted from Newsom et al. (2005), Michaelidou and Hassan (2008) and Suki (2013). Six items

measuring social influence and media influence were extracted form Lee (2008), Kumar (2012), Aman et al. (2012) and Arttachariya (2012). Perceived government initiatives were operationalized using five items from Diekmeyer (2008), Chen and Chai (2010) and Mei et al. (2012).

Green Purchase intention was measured using the Scales developed by Follows and Jabber (1999), Kim and Choi (2005), Lee (2008) and Rehman and Bin Dost (2013). Furthermore, green purchase intention was viewed in the light of general and specific measures. General measures included three items adopted from Kim and Choi (2005), Lee (2008) and Rehman and Bin Dost (2013). Specific measures using five items were developed with the suggestion from Follows and Jabber (1999) and Kim and Choi (2005). Follows and Jabber (1999) and Kim and Choi (2005) recommended the future researchers to enhance the measures of green purchase intention by incorporating specific measures. It means that, rather depending on one specific green product, researchers test the green purchase intention in the light of number of specific green products based on the usage and it's important to the human beings. In this context, researchers in this study selected the five important green products as natural food and beverage, herbal cosmetics, detergent powder with less toxic, green electronic and green auto mobiles. By using those five specific green products, researchers in this study developed the five items under the specific measures of green purchase intention. To this end, integrating those five green products in to the scales of green purchase intention under the specific aspects provide the clear prediction about the concept green purchase intention broadly rather than single product measure. The items operationalizing all the constructs were measured with five – point Likert type scale ranging from 1 for " Strongly disagree" to 5 for " Strongly agree".

To ensure content validity, the survey instrument was vetted by five academics with expertise in the discipline of marketing and eco business management. In the final data survey, English version questionnaire was utilized among the respondents of the study as the young consumers, who are following the management degree programs in the medium of instruction as English in the Sri Lankan state universities. Due to that, they have enough academic background in the field of marketing and better level of English language proficiency. In addition to that, Business English course unit is taught parallel with the degree program to ensure the proficiency in English as the medium of instruction. Further, simple English terminology with synonyms aided the respondents to fill the research instruments without having difficulties in terms of subjective aspects. Further, the survey instrument was pretested using one focus group, comprising six Management undergraduates. Based on their feedback, some minor changes were incorporated in to the wording and format of the survey instrument.

5 Results and Analysis

5.1 Exploratory Factor Analysis

Exploratory Factor Analysis is a general name denoting a class of procedures primarily used for data reduction and summarization. In marketing research, there may be a large number of variables, most of which are correlated and which must be reduced to a manageable level. Relationships among sets of many interrelated variables are examined and represented in terms of a few underlying factors (Malhotra & Dash, 2010). In line with above discussions, Exploratory Factor Analysis is used in this study to identify a new , smaller set of uncorrelated variables to replace the original set of correlated variables in subsequent multivariate analysis as regression.

5.2 Results of Exploratory Factor Analysis

Guidelines for KMO Test

Table 2: Guidelines for KMO Test

KMO Value	Degree of Common Variance
0.90 to 1.00	Marvelous
0.80 to 0.89	Meritorious
0.70 to 0.79	Middling
0.60 to 0.69	Mediocre
0.50 to 0.59	Miserable
0.00 to 0.49	Don't Factor or unacceptable

Bartlett's Test of Sphericity and the Kaiser-Meyer-Olkin Test of Sampling Adequacy (KMO) are commonly used to provide more complex measures for assessing the strength of the relationships and suggesting factorability of the variables (Beavers et al., 2013). Kaiser (1974) recommends that the accepted index of KMO & Bartlett's Test of Sphericity should be over 0.5. Also, the Bartlett's Test of Sphericity relates to the significance of the study and thereby shows the validity and suitability of the responses collected to the problem being addressed through the study.

Table 3: KMO & Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.885
Bartlett's Test of Sphericity	Approx. Chi-Square	12734.055
	Degree of Freedom	703
	Significant	0.000

The guidelines to interpret the Kaiser-Meyer-Olkin measure (Beavers et al., 2013 and Sivathaasan & Chandrasekar, 2013) are presented in table 2. In the current study, value for KMO matrix is 0.885, which falls under the range of Meritorious and test value of chi-square is 12734.055, which is significant at five percent level ($p < 0.05$). Hence, data indicate the suitability and appropriateness. Table 3 summarizes the statistics derived from the analysis in relation to KMO measure and Bartlett's Test.

Criteria Used in EFA

Factor analysis is a general name denoting a class of procedures primarily used for data reduction and summarization (Malhotra & Satyabhushan, 2010).The study employs the Exploratory Factor Analysis (EFA) to identify the underlying antecedents of green purchase intention with Principal Component Analysis (PCA) extraction method. According to Malhotra and Satyabhushan (2010), PCA is an approach to factor analysis that considers the total variance in the data. For extraction of the factors, the following three criteria(s) were used.

- Eigen values greater than or equal to 1 were used to identify the number of factors. The eigenvalue is a value associated with each factor describing the amount of variance in the items that can be explained by that factor (Pett et al., 2003).
- Items with a loading smaller than 0.5 (low factor loadings) on any factor were deleted. For parsimony, only factors with loadings above 0.5 were considered significant (Pal, 1986 and Pal & Bagi, 1987).
- Items that demonstrated cross-loadings greater than 0.5 on more than one factor were dropped, assuming that no pure measures of a specific construct are provided (Olorunniwo et al., 2006).

5.3 Final Results of EFA

The study used exploratory factor analysis to identify the component factors from 38 items related to antecedents of green purchase intention and green purchase intention by using Principal Component Analysis (PCA) with Varimax rotation. How much variance a factor has to explain in order to warrant the retention of a factor or a component is decided based on above mentioned three criteria.

According to the criteria, four items (04) were excluded in this study. Meanwhile, those excluded items don't make any effect on the content validity of the scale. Two items in the green purchase intention as "I would like to purchase the detergent powder(s) (Washing Powders) that are made from less toxic and chemical ingredients (GP 33)" and " I would like to buy the electronic item(s),that are made with energy saving techniques and recycled materials in near future (GP 34)" were excluded. It implies that, sample respondents as management undergraduates in Sri Lanka give the less important to the green detergent and green electronic items than other eco-friendly products in the study. Further, it indicates that, respondents in this research recognize the eco-friendly products as natural food and beverage, natural cosmetics and green automobile products. Further than, management undergraduates also perfectly distinguish green detergent and green electronic from the natural food and beverage, natural cosmetics and green automobile products in term of green characteristics. Generally, detergent powder is produced with chemical ingredients; those are having toxic in nature. Therefore, these days, manufacturing firms also consider overcoming the above defect as toxic items and introducing the green detergent with less toxic. Even though, management undergraduates in Sri Lanka neglect green detergent. In the supportive view, respondents in this study also are not in the locus to prefer the green electronic, since those are made with plastic and non-biodegradable items. Even though, those are called and marketed as green electronic with having recycled materials and energy saving techniques.

In addition, one item (GP 15) in perceived consumer effectiveness and one item (GP 8) in environmental concern were excluded in this study. Item no GP 15 as "I feel that, I am a capable person to help for solving the environmental problems in terms of pollutions" denotes responsibility and capability of the respondents. In this way, management undergraduates in Sri Lanka do not perceive that, they are capable person to help for solving the environmental issues in terms of pollutions, since they are not matured in nature and practice. In addition to that, respondents also don't view themselves as "they are emotionally involved in environmental protection (Safety) issues in Sri Lanka (GP 8)". It infers that, they have emotional feelings towards environment (GP 6 & 7), but not yet involved in environmental activities actively.

Other than that, item no GP9 in environmental concern as "I often think about how the environmental quality in Sri Lanka can be improved" was loaded under the Perceived consumer effectiveness. Both environmental concern and perceived consumer effectiveness are interrelated concept, because, those are derived from values and attitude towards environmental aspects. Meanwhile, both environmental concern and perceived consumer effectiveness are unique in theoretical frame and its nature in practice. Environmental concern denotes the degree of emotional involvement in environmental issues, while perceived consumer effectiveness refers to the judgment of an individual about the way and the extent of the environmental effects of his or her behavior. Further than, one item (GP 5) as "It is essential for my country to spend a vast amount of money on

promoting environmental protection (Safety)" in the environmental attitude was loaded in environmental concern. In line with this, both environmental attitude and concern are interrelated with each other in nature. Even though, those two are unique in theory and practice. Environmental attitude define as "individuals' value judgment of environmental protection which taps the individuals "cognitive assessment of the value of environmental protection", while, environmental concern denotes as "the degree of emotional involvement in environmental issues". It implies that, strong environmental attitude is called as environmental concern.

Variance Explained

Table 4: Matrix of variance explained

Description	**GP1**	**PCE**	**PGI**	**HC**	**SI**	**EA**	**MI**	**EC**
Eigenvalue	3.418	2.632	2.521	2.347	2.210	2.140	2.009	1.853
Percentage of explained variance	8.996	6.926	6.634	6.175	5.817	5.631	5.288	4.875
Cumulative percentage of explained variance	8.996	15.921	22.556	28.731	34.548	40.179	45.467	50.342
Number of Items	06	06	04	05	03	04	03	03

Notes: GPI: Green Purchase Intention, PCE: Perceived Consumer Effectiveness, PGI: Perceived Government Initiatives, HC: Health Consciousness, SI : Social Influence, EA: Environmental Attitude, MI: Media Influence, and EC: Environmental Concern

As per the Table 4 Matrix of variance explained, the procedure resulted in a eight factor solution such as factor 1 (Green purchase intention), factor 2 (Perceived consumer effectiveness), factor 3 (Perceived government initiatives), factor 4 (Health consciousness) , factor 5 (Social Influence), factor 6 (Environmental attitude) , factor 7 (Media Influence) and Factor 8 (Environmental concern). These eight factors extracted together account for 50.342 % of the total variance with factor 1 (Green purchase intention) contributing to 8.996 %, factor 2 (Perceived consumer effectiveness) contributing to 6.926 %, factor 3 (Perceived government initiatives) contributing to 6.634 %, factor 4 (Health consciousness)

contributing to 6.175 %, factor 5 (Social Influence) contributing to 5.817 %, factor 6 (Environmental attitude) contributing to 5.631 %, factor 7 (Media Influence) contributing to 5.288 % and Factor 8 (Environmental concern) contributing to 4.875 %. Table 4 presents eigenvalue of 1 or more, percentage of explained variance for each factor and cumulative percentage of explained variance.

EFA Results with factor loading and Reliability

Table 5: Summary of EFA Results

Items	Item No	Factor Loading	Cronbach's alpha
Environmental Attitude			0.692
It is essential to use the natural resources effectively without having harmful effect on environment	GP1	0.638	
More environmental protection (Safety) works are needed in my country	GP2	0.647	
It is important to raise environmental awareness among the people in my country	GP3	0.680	
I think environmental protection (Safety) is meaningful	GP4	0.599	
Environmental Concern			0.688
It is essential for my country to spend a vast amount of money on promoting environmental protection (Safety)	GP5	0.596	
I am worried about the environmental condition of the Sri Lanka	GP6	0.653	
Sri Lankan environment is my major concern (Fear)	GP7	0.732	
Perceived Consumer Effectiveness			0.643
I often think about how the environmental quality in Sri Lanka can be improved	GP9	0.536	
I feel I could help to solve natural resource problem by conserving (Using economically) water and energy	GP10	0.595	
I could protect the environment by buying products that are friendly to the environment	GP11	0.607	
I think, if I carry out some pro – environmental activities as recycling and reusing things in my everyday life, I would contribute a lot to our environment	GP12	0.584	
I think my participation in environmental protection would influence my family / friends to participate too	GP13	0.585	
I think my participation in environmental protection would influence general public to participate too	GP14	0.567	
Social Influence			0.659
My friend(s) advise me to protect environment	GP16	0.720	
My family member(s) advise me to protect environment	GP17	0.796	

My teacher(s) and lecturer(s) advise me to protect environment	GP18	0.682	
Media Influence			0.665
Daily Newspaper(s) influence me to protect environment	GP19	0.676	
Mass Media(s) like television / radio channels influence me to protect environment	GP20	0.787	
Social Network(s) like face book / twitter / you tube influence me to protect environment	GP21	0.764	
Health Consciousness			0.664
I am usually aware of my health condition	GP22	0.665	
I like to enjoy the healthy life	GP23	0.569	
I generally take preventive actions to secure my health from the diseases / injury / other physical impairments	GP24	0.689	
Health issues play an important role for me when I consume food / beverage (drink) items	GP25	0.628	
I think, environmental changes through the polluting activities affect my health condition	GP26	0.542	
Perceived Government Initiation			0.685
Environmental awareness programs are conducted to protect the Sri Lankan environment by governmental bodies	GP27	0.760	
Governmental policies with regards to environmental protection are practiced to protect the environment in Sri Lankan context	GP28	0.822	
Social advertisements on environmental protection and its benefits to the society are promoted via newspapers / mass medias / social networks by governmental bodies in Sri Lanka	GP29	0.717	
Sri Lankan Government provides incentives (Tax relief and Concession) to the manufacturers to produce the eco-friendly products	GP30	0.629	
Green Purchase Intention			0.663
I would like to purchase the natural food / beverage (Drink) item(s)	GP31	0.562	
I would like to buy the cosmetic item(s), that are made from natural / herbal ingredients	GP32	0.599	
In near future, I would like to buy automobile(s), that are made with energy saving techniques and recycled materials	GP35	0.704	
When I have a choice between two equal products in terms of quality, I would like to purchase the one less harmful to other people and the environment	GP36	0.564	
I would like to buy the environmental friendly products even if they are more expensive than non - environmental friendly products	GP37	0.642	
I would like to recommend the environmental friendly products to others	GP38	0.769	

5.4 Common method bias

Since the data of constructs were collected from the same respondents, a common method bias might occur. This potential problem was checked with the Harman one – factor test (Podsakoff & Organ,1986). A factor analysis of eight focal constructs resulted in eight factor solution, which accounted for 50. 34 % of the

total variance; and factor one accounted for 8.996 of the variance. Because, a single factor did not emerge and factor one did not explain most of the variance, common method bias is unlikely to be a concern in this data.

6 Hypotheses Testing

A hierarchical regression analysis was conducted to test the hypotheses. In line with this, two models were developed and tested through the hierarchical regression analysis. Among the two regression analysis models, the highest VIF value stood at 1. 620, which was much lower than the cut – off value of 10.0, demonstrating multicollinearity was not a problem in the models (Hair & Anderson, 2010). In all two models, green purchase intention was considered as the dependent variable. The influence of the control variables as gender, monthly income of family, family size, ethnicity and religion were assessed in Model 1. The direct effects of determinants of green purchase intention as environmental attitude, environmental concern, perceived consumer effectiveness, health consciousness, social influence, media influence and perceived government initiatives were incorporated in Model 2.

Table 6: Results of Hierarchical Regression Analysis

Independent Variables	**Dependent Variable: Green Purchase Intention**	
	Model 01	**Model 02**
Control Variables		
Gender	0.201***	0.105***
Monthly Income of Family	0.068*	0.038^{ns}
Family Size	-0.046^{ns}	-0.052^{ns}
Ethnicity	-0.006^{ns}	-0.010^{ns}
Religion	-0.004^{ns}	-0.004^{ns}
Direct effect of variables		
Environmental Attitude		0.133***
Environmental Concern		0.068^{ns}
Perceived Consumer Effectiveness		0.214***
Health Consciousness		0.266***
Social Influence		0.036^{ns}
Media Influence		0.010^{ns}
Perceived Government Initiatives		0.026^{ns}
R^2 Value	0.045	0.304
Change in R^2 Value	-	0.259
F Value	13.613	49.165
F Significance	($p < 0.001$)	($p < 0.001$)

Note: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; ns, not significant

As per Model 2, it suggests that, seven determinants of green purchase intention , along with control variables explained 30 % variance in green purchase intention, with an F – value of 49.165 ($p < 0.001$). In Model 2, environmental attitude ($\beta = 0.133$, $p < 0.001$), perceived consumer effectiveness ($\beta = 0.214$, $p < 0.001$) and health consciousness ($\beta = 0.266$, $p < 0.001$) had significant positive influences on green purchase intention. Hence, H1, H3 and H4 were accepted. Meanwhile, green purchase intention was not influenced by environmental concern, social influence, media influence and perceived government initiatives. Therefore, H2, H5, H6 and H7 were rejected.

As per the results in Table 6, and Model 2, only gender had significant positive influences on green purchase intention ($\beta = 0.105$, $p < 0.001$), while green purchase intention was not significantly influenced by other control variables as monthly income of family, family size, ethnicity and religion. Hence, H8 was partially accepted.

7 Discussion

To investigate this research, based on the underpinnings of the TPB, seven constructs were incorporated into a conceptual model as antecedents of green purchase intention. They are: Environmental attitude, environmental concern, perceived consumer effectiveness, health consciousness, social influence, media influence and perceived government initiatives (Ajzen, 1991, Ellen et al., 1991, Kim & Choi, 2005, Newsom et al., 2005, Park et al., 2005, Diekmeyer, 2008, Lee ,2008, Samarasinghe, 2012 and Wong et al., 2012). Hierarchical Regression Analysis was used to examine the effect of antecedents (Environmental attitude, environmental concern, perceived consumer effectiveness, health consciousness, social influence, media influence and perceived government initiatives) on green purchase intention. The results revealed that, green purchase intention is significantly influenced by environmental attitude, perceived consumer effectiveness and health consciousness. In contrast, green purchase intention is not influenced by environmental concern, social influence, media influence and perceived government initiatives.

Environmental attitude had significant influence on intention to purchase the eco-friendly products. This implies that, individuals' value judgment of environmental protection (environmental attitude), which taps the individuals' cognitive assessment of the value of the environmental protection. In this way, environmental attitude tap the consumers mind to prefer the green products (Lee, 2008). Consistent with the findings of Jobber (2007) and Mostafa (2007), study findings also indicated that, environmental attitude had significant influence on green purchase. Further than, based on Theory of Planned Behavior, attitude serve

as the main antecedent of intention (Ajzen, 1991). Same as TPB, in this study frame, environmental attitude took prominent role to induce the green purchase intention.

Perceived consumer effectiveness is the judgment of an individual about the way and the extent of the environmental effects of his or her behavior. Further, it differs from person to person, because of the dissimilarity in individuals' personal knowledge and life experience. In line with this, previous literature in Western and Asian perspective documented that, green purchase intention is influenced by perceived consumer effectiveness (Ellen et al., 1991; Lee & Holden, 1999; Kim & Choi, 2005; Chen, 2007; Lee, 2008 and Wong et al., 2012). Consistent with above discussions, study findings also indicated that, green purchase intention is significantly influenced by perceived consumer effectiveness. it implies that, perceived confidence of an individual in solving the environmental problems with his or her effort exerted tap the consumers mind to prefer the ecofriendly products. In that way, some believe is that, action lead to particular outcomes and thus bring about changes, while others have little confidence in their ability to make a difference. In nutshell, respondents of the study had perceived ability to protect the environment by trying to purchase ecofriendly products.

Generally, health consciousness denotes that how health concern is incorporated into daily activities. Further, promptness to undertake health actions is initiated and induced by the health conscious. (Kraft & Goodell, 1992 and Newsom et al., 2005). Previous literature documented that, health concern is considered as the motive to induce the green purchase among consumers who have better level of awareness regarding to the healthy life and its benefits (Newsom et al., 2005). Consistent with above arguments, the study findings also revealed that, green purchase intention is significantly influenced by health consciousness. It implies that, respondents in this study are more health consciousness and ready to prefer the green products.

8 Implication for Theory and Practice

Researchers have modified the TPB to explore green purchase intention in this study frame. The proposed integrated model of green purchase intention encompassed seven factors as antecedents of green purchase intention. Those are environmental attitude, environmental concern, perceived consumer effectiveness, health consciousness, social influence, media influence and perceived government initiatives. Out of seven antecedents, two antecedents as environmental attitude and social influence were conceptualized with the aid of two dimensions in the TPB as attitude and subjective norm respectively. In addition to that, the important antecedent as "perceived consumer effectiveness" was constructed with help of the dimensions as "perceived behavioral control" in TPB and "Personal Norms" in

the Value – Beliefs - Norm Theory. In addition to the three determinants as environmental attitude, social influence and perceived behavior control extracted form TPB, remaining four antecedents as environmental concern, health consciousness, media influence and perceived government initiatives were incorporated in the model with the various and supportive empirical evidences (Kim & Choi , 2005 ; Newsom et al., 2005; Lee ,2008; Diekmeyer, 2008; Wong et al., 2012; Samarasinghe ,2012 and Mei et al., 2012). Therefore, the proposed model is considered as the comprehensive one to predict the intention towards green products. Further, this model can be applied in globalized level among young consumers to predict the purchase intention towards green products.

In practice, Marketers of the green products might focus on marketing communication by using the themes like environmental protection, effective use of natural resources, environmental quality, recycling & reusing, eco – packaging, eco- labeling and healthy life to induce the young consumers to purchase green products. Furthermore, Marketers should focalize with specific strategy on integrated marketing communication to attract the young consumers in Sri Lankan Stand point towards green products by using above themes. Because, research findings also revealed that, green purchase intention is influenced by environmental attitude, perceived consumer effectiveness and health consciousness. Finally, governmental bodies and policy makers should draft the specific policy to induce the green consumerism in Sri Lankan Stand point. This might be the green signal to the sustainable development and it's prosperous.

9 Limitation and Further Research Direction

This study focalized on young consumers in Sri Lankan platform. Proposed conceptual model also might be applied among general consumers in globalized level to predict the green purchase intention. This study investigated the antecedents of green purchase intention among young consumers in Sri Lankan stand point. In this aspect, seven antecedents were incorporated in to the research conceptual model. But, postecedents of green purchase intention were not combined in the model. Therefore, researchers in the field of green consumerism might incorporate the postecedents of green purchase intention as green purchase behavior, green customer satisfaction, green customer loyalty, green customer retention and green brand equity. This might give some cues to the exiting literature in the green marketing paradigm.

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