



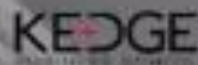
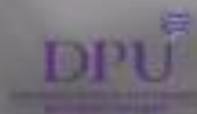
**Program Conference and ABSTRACT**

**Pursuing Pentahelix Industry Collaboration:  
An ASEAN Regional Integration Challenge**

**October 14<sup>th</sup> – 15<sup>th</sup> 2015  
Bali, Indonesia**

**The Global Advanced Research Conference on  
Management and Business Studies  
(GARCOMBS)**

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## Global Advanced Research Conference on Management and Business Studies (Garcombs) 2015

Pursuing Pentahelix Industry Collaboration: An Asian Regional Integration Challenges  
Jl. Dipati Ukur No. 46 Building A Bandung – 40132  
Phone : (022) 2534388, 2534392 Fax. (022) 2534392



### Letter of Acceptance

To  
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State Islamic University of Suska Riau  
Pekanbaru

Warm greetings from the committee of Global Advanced Research Conference on Management and Business Studies (GARCOMBS) 2015.

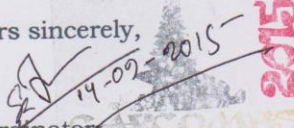
We would like to inform you the paper abstract entitled **Green Consumer Behavior: Concept, Dimension and Proposition**, and your paper code is G268 for consideration to be presented on the 3<sup>rd</sup> GARCOMBS 2015, Bali, Indonesia. We received a large number of submissions and the decision has been difficult for selection. However, the program committee has completed the review and your abstract is one of those **accepted** to present in the conference sessions.

Authors/University:

1. Julina, State Islamic University of Suska Riau
2. Popy Rufaidah, Padjadjaran University

We are strongly recommending Mrs. Julina from UIN Suska Riau, to attend this conference and present her article. We look forward to receiving your full paper before 19 September 2015.

Yours sincerely,

  
Coordinator

The Global Advanced Research Conference on Management and Business Studies (GARCOMBS) 2015  
Faculty of Economics and Business, Padjadjaran University  
Jl. Dipati Ukur No.46, DIM Building, Bandung 40132, Indonesia  
Phone: +62-22-2534388  
Mobile Phone: +6281224431589  
Email: garcombs2015@fe.unpad.ac.id  
Facebook: <https://www.facebook.com/groups/973767952663732/>  
website: <http://garcombs.dim.feb.unpad.ac.id/>

*Looking forward to seeing you soon in Bali, Indonesia!*



## Green Consumer Behavior: Concept, Dimension and Proposition

Julina<sup>1</sup> & Popy Rufaidah<sup>2</sup>

### Abstract

*In the rising issues of global warming, green consumer behavior become one of the solution to overcome that problems. Consumer has a power to force producer to produce in an environmentally friendly manner. Beside, green consumer behavior will also contribute to help preserving the environment and preventing natural damage. The main purpose of this paper is to investigate different terms and methods used in the measurement of green consumer behavior and develop a proposition regarding factors affecting green consumer behavior. As green consumer behavior has several kind of activities, this paper focus on green purchase decision. It provides some new information concerning the measurement of green purchase behavior in the area of consumer behavior research. The general finding of the current studies is that green consumer behavior has several types of activity and dimension. It could also be concluded that green consumer behavior is a profoundly complex construct to measure. This research may be considered as a part of measurement scale development to understand more deeply about green purchase behavior. After review the concepts, measurement, and theories related to green purchase behavior based on the literature, it will also will also be proposed propositions about factors that affect green purchase behavior and its impact on life satisfaction in order to build a comprehensive model of green purchase behavior. Based on the discussion of some of the articles, the issues raised are still limited studies on the conceptual definition of green purchase behavior, which is not many experts build their own definition.. Original contribution of this paper is the emergence of developing new models of various green purchase behavior predictor variables apart from the results of the literature review. Beside, it is also known that green purchase behavior variables itself can occupy the position of dependent and independent where the dependent variable is the life satisfaction. At the end of this paper, several propositions are proposed to be tested empirically in future studies.*

*Keywords: Green Consumer Behaviour, Dimension, Scale Development, Measurement*

### INTRODUCTION

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<sup>1</sup> Julina is a lecturer in Economic and Social Science Faculty at the State Islamic University of Suska Riau and is currently a graduate student of doctoral program at the University of Padjadjaran, Bandung, Indonesia

<sup>2</sup> Popy Rufaidah is a lecturer in Economic and Business Faculty of Padjadjaran University, Bandung, Indonesia

The importance of environmental preservation is currently a major concern for all countries. This is done in line with the increasing environmental problems that occur. One of the major causes of environmental damage is from human activity in meeting their needs. The growing population creates a load that the entire environment has to support, not only in terms of food and lodging, but also in terms of the amount of waste generated and the ability of the environment to sustain this growth. All daily activities should be carried out to support this growing population. Awareness of protecting the environment are now beginning to be perceived by many consumers. One manifestation of this awareness is the desire to buy environmentally friendly products.

Given the fact that many environmental damage done as a result of the consumption patterns of society, and the growing trend toward environmentally conscious, specific research on environmentally friendly purchasing behavior needs to be done. To produce research that gives consistent results, required a detailed understanding of the definition or concept of green purchasing behavior. The purpose of this paper is review the concept, dimension, measurement, and relationship among green purchase behavior antecedents and consequence. With this in, the researchers expected to be able to understand more deeply about the green purchase behavior.

## **LITERATURE REVIEW AND PROPOSITION DEVELOPMENTS**

### **Green Consumer Behavior**

The global environmental problem is a growing concern since 1970s. However, numerous environmental disasters and events in the late 1980s have pulled environmentalism into the spotlight once again. As public concern about environmental issues increases, the research discussed in the topic of green consumer behavior also increase. Green consumer behavior will be an important part of efforts to save the environment. Research on environmentally friendly behavior in general discusses the various activities undertaken by consumers in buying, consuming, processing

waste, energy-efficient behavior, active in the environmental movement, and so on. Table 1 displays the various definitions of environmentally friendly behavior observed in the past research.

Table 1  
Development of Green Consumer Behavior Concept

Authors	Definition
Sivek & Hungerford 1989/1990 as cited in Halpenny, (2006:66).	Pro-environmental behavior can be defined as the action of an individual or group that advocates the sustainable or diminished use of natural resources
Dunlap (1991) in Kim & Choi (2003:13)	Two major types of pro-environmental behaviors: those that focus on individual responsibility and those that emphasize political action
Tilikidou & Zotos (1999:16)	Ecological Consumer Behavior is consisted of purchase behavior, post purchase behavior, and activities
Follows dan Jobber (2000:723)	Webster (1975) defined a socially conscious consumer as a consumer who takes into account the public consequences of his or her private consumption or who attempts to use his or her purchasing power to bring about social change. That is, consumers incorporate social issues into their purchase decisions by evaluating the consequences of their consumption upon society.
McCarty dan Shrum (2001:93)	Most model of purchase intention assume that the consumer has some level of self-interest and that the purchase of particular product or service is driven by an assessment of the benefits that would accrue directly to the individual or household relative to the assesment of cost. Unlike most consumer behavior, however the direct, extrinsic benefit that accrue form proenvironmental behavior (e.g. a noticeably better environment) are at best long-term for the individual and may in fact never be realized.
Kim dan Choi (2005:592)	It is notable that proenvironmental behaviors differ from general purchase-related consumer behaviors. Engaging in a general purchase behavior is driven by an assessment of its benefits and costs that are relevant solely to the individual consumer performing the behavior. By contrast, environmentally conscious behavior is unlikely to deliver instant personal gain or gratification, but rather the future-oriented outcome (e.g., cleaner environment) that often benefits society as a whole
Jonsson, Marell, dan Nordlund (2010:358)	There are both similarities and differences between green curtailment behaviors and green purchase behaviors of high involvement products
Kim (2011:67)	Environmentally responsible buying can be considered as a specific type of socially conscious behavior (Anderson and Cunningham 1972) because the behavior (e.g., buying and consuming green products) reflects a conscious concern for the environmental consequences related to the consumption of particular products or services.

Authors	Definition
Albayrak, Caber, Moutinho, dan Herstein (2011:189)	One type of environmentally sensitive behavior is “green purchase behavior” which can be observed in those consumers who scrutinise labels, who use biodegradable garbage bags and biodegradable soaps and natural detergents, who purchase goods with biodegradable packaging and who refuse to purchase from restaurants where styrofoam packages are used (Minton and Rose, 1997; Schwartz and Miller, 1991).
Ishaswini dan Datta (2011:125)	People, as consumers, can reduce their impact on environment and make a positive difference through their purchasing decisions. The belief is that the consumer’s proenvironmental concern is one of the determinants of their “green buying” behaviour i.e., buying and consuming products that are environmentally beneficial (Mainieri et al., 1997).
Xiao dan Li (2011:324)	Broad and widely-used definition of sustainable consumption was developed in 1994 at the Oslo Symposium sponsored by the United Nations, which states, sustainable consumption is “... the use of goods and services that respond to basic needs and bring a better quality of life, while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardize the needs of future generations.” (Oslo roundtable 1994). This definition is broad and rich with multiple meanings for multiple sectors of society. First, it refers to activities by both production units and individual consumers. Second, it concerns environmental protection and resource utilization equally. Third, it seeks a balance between well-being of current and future consumer populations.
Tan dan Lau (2011:560)	Pro-environmental behavior can be defined as the action of an individual or group that contributes to the sustainable use of natural resources (Halpenny, 2006).
Başgöze dan Tektaş (2012:477)	Environment-friendly consumption should be characterized as a complex form of consumer behavior, and the ethical perception is an important part of it.

Source: Author’s collection

Based on the data in Table 1 it can be seen that environmentally friendly behavior can have various types such as action/activity in sustainable natural resources, individual responsibility, political action, purchase of green product, post purchase such as recycling or reuse, concerning the public consequences, benefit and cost accrue from consuming green product, curtailment, reduce impact of consumption on environment, minimizing use of natural resources, and ethical perception. From various types of environmentally friendly behavior, this paper attempts to explore the green purchase behavior deeply.



## Green Purchase Behavior

As a summary from several green purchase behavior definition proposed by the researcher, it can be concluded that green purchase behaviour is one of the pro-environmental behaviours, whose purchase behavior is influenced by environmental concerns, in his or her consumption behavior, consciously attempts to have neutral or positive effects on the earth, its environment, and its inhabitants. Other definition state that purchasing and consuming products that are benign toward the environment, one who purchases (avoids) products and services which he or she perceives to have a positive (negative) impact on the environment. Lee (2009) cited on Mostafa (2007) defining green purchase behavior as consumption of products that are: benevolent/beneficial to the environment;recyclable/ conservable; or sensitive/responsive to ecological concerns. Green purchase behavior was also operationalized as the extent that consumers purchase environmentally products (organic, environmentally safe, non animal testing, no chemical ingredients, certified environmentally safe, fair community trades and recycled) as their shopping items. Table 2 describe in more detail the definition of green purchase behavior from previous researcher.

Table 2  
Green Purchase Behavior Definition

Authors	. Green Purchase Behavior Definition
Shrum, McCarty, & Lowrey (1995:72)	Green consumer to be anyone whose purchase behavior is influenced by environmental concerns.
Anderson & Cunningham, (1972) in Soonthonsmai (2001:43)	A green consumer was defined as a person who, in his or her consumption behavior, consciously attempts to have neutral or positive effects on the earth, its environment, and its inhabitants
Mainieri, Barnett, Valdero, Unipan, & Oskamp (1997:190)	Environmental consumerism (green buying) – purchasing and consuming products that are benign toward the environment

Authors	. Green Purchase Behavior Definition
Robert and Bacon (1997:84)	Ecologically conscious consumer can be defined as one who purchases (avoids) products and services which he or she perceives to have a positive (negative) impact on the environment
Gupta dan Ogden (2006:199)	Environmental consumerism is defined as a consumer's purchase behavior influenced by environmental concerns (Shrum et al. 1995) to seek products and services with minimal impact on the environment (Mainieri et al. 1997). Simply, it translates into consumption behaviors such as purchase of green products and services (Easterling et al. 1995), such as purchasing products made from recycled paper.
Lee (2009:89)	Green purchasing behavior refers to the consumption of products that are: <ul style="list-style-type: none"> <li>- benevolent/ beneficial to the environment;</li> <li>- recyclable/ conservable; or</li> <li>- sensitive/responsive to ecological concerns (Mostafa, 2007).</li> </ul>
Tan (2011:15)	Green purchase behaviour is one of the pro-environmental behaviours (Chan, 2001; Kim, 2002; Kim and Choi, 2003; 2005; Mostafa, 2007). It refers to the purchasing and consuming products that have minimal impacts on environment (Mainieri, Barnett, Valdero, Unipan and Oskamp, 1997).
Noor, Muhammad, Kassim, Jamil, Mat, Mat & Salleh (2012:62)	The consumer's green purchase behavior was operationalized as the extent that consumers purchase environmentally products (organic, environmentally safe, non animal testing, no chemical ingredients, certified environmentally safe, fair community trades and recycled) as their shopping items (Mostafa, 2007).
Saleki , Saleki & Rahimi (2012:279)	One of the pro-environmental behaviour is Green purchase behaviour (Chan, 2001; Kim and Choi, 2003 and 2005; Kim, 2002; Mostafa, 2007). It is all related to the using and buying goods which have minimal influence on environment (Mainieri et al., 1997).
Kheiry & Nakhaei (2012:172)	Consumers are more willing to purchase green products which are not harmful to the environment and natural resources (Chen, 2010).
Akehurst, Afonso & Goncalves (2012: 973)	Green buying behaviour has consequently been evaluated differently by authors. Some authors use measures that are more general and indicate a predisposition to environmentally conscious behaviour (e.g. ECCB, Straughan and Roberts, 1999). Others attempt to provide a more objective measure of effective green purchase behaviour (GPB) (see for example, Chan, 2001).

Source: Author's collection

From many previous studies it is known that the term environmentally friendly purchasing behavior varies between the researchers with other researchers. Table 3 describe in more detail the typology of green purchase behavior from previous researcher.

Table 3  
Typology of Green Purchase Behavior

Istilah	Authors
Green Purchase Behavior	Shrum, McCarty, dan Lowrey (1995:72) Chan (2001:401) Mostafa, (2007) dalam Lee (2009:89) Jansson, Marell, dan Nordlund (2010:358) Minton and Rose, (1997); Schwartz and Miller, (1991) dalam Al Bayrak <i>et al.</i> (2011:189) Tan (2011:15) Tan & Lau (2011:559) Gupta dan Ogden (2006:199); Mostafa, 2007; Mohamed and Ibrahim, 2007 Tarkiainen and Sundqvist, 2005 seperti dalam Tan dan Lau (2011:560) Mostafa, (2007) dalam Noor, <i>et al</i> (2012:62) Chan, (2001); Kim and Choi, (2003 and 2005); Kim, (2002; Mostafa, (2007) dalam Saleki, <i>et al</i> (2012:279)
Pro-environmental purchase behavior	Soutar <i>et al.</i> , 1994; Tilikidou, 2007
Pro-environmental behavior	Karp, 1996
Pro-environmental Consumer Behavior	Angelovska (2012:408)
Environmentally responsible purchase behavior	Follows and Jobber, 2000:724
Green buying	Mainieri, Barnett, Valdero, Unipan, dan Oskamp (1997:190) Ishaswini dan Datta (2011:126) Akehurst, Afonso dan Goncalves (2012: 973)
Green buyer	Gupta dan Ogden (2009:382)
Green consumption	Kim, Yeo , Sohn, Rha, Choi, Choi dan Shin (2012:200)
Green Buying Behavior	Kim & Choi (2003:24)
Green Consumer	Shrum et al (1995:72) Fergus (1991) in Soonthosmai (2001:23) Anderson & Cunningham (1972) in Soonthosmai (2001:43)
Purchase decisions	Webster (1975) dalam Follows dan Jobber (2000:723)
Environmentally conscious behavior	Kim dan Choi (2005:592)
Environmentally responsible buying	Anderson dan Cunningham (1972) dalam Kim (2011:67)
Environment-friendly consumption	Başgöze dan Tektaş (2012:477)
Sustainable consumption	Oslo Symposium (1994) dalam Xiao dan Li (2011:324)
Environmental consumerism	Gupta & Ogden (2006)
Environmentally conscious Purchasing	Mainieri, Barnett, Valdero, Unipan, dan Oskamp (1997:193)
Ecologically Conscious Consumer Behavior	Robert & Bacon (1997:79)

Source: Author's collection

### Measurement of Green Purchase Behavior

The difficulty in measuring green purchase behavior may be caused by many of the measures are normative in nature and can lead to socially desirable responses (Roizen and De Pelsmacker,

1997). A scale composed of several statements that represent positive environmentally responsible actions can generate a halo-effect that encourages respondents to over-report environmentally responsible behaviors. Then, it is important for researchers to clearly describe between environmentally responsible intention and behavior. Environmentally responsible products in general tend to be viewed as the socially acceptable choice which can drive intention relative to actual behavior. Finally, researchers frequently combine a wide range of environmental purchase behavior into a single measure. Studies investigating product purchase behavior have either used product categories, such as organic foods, or broad generic measures, such as groceries with recyclable packaging. Antil and Bennett (1979) argued that environmental responsibility is a behavior pattern that is exhibited in degrees, and is not something that a consumer either has or does not have. Consumers sometimes purchase environmentally responsible and non-responsible products or exhibit compensating post-purchase behavior. An example of the latter is a consumer who purchases a product in a non-returnable container but re-uses the container. For this reason Diamantopoulos et al. (1994) and Pickett et al. (1993) recommended that behavior should be assessed for specific products and activities rather than general environmentally responsible purchase patterns (Follows & Jobber, 2000). To review several measurement used by the research, Table 4 summarize the item questioned in measuring green purchase behavior,

Table 4  
Measurement of Green Purchase Behavior

Authors	Number of Item	Dimension/Statement
Homer & Kahle (1988:642)	2	Frequency of shopping at natural food stores Monthly amount spent at natural food stores
Karp (1996:118)	16 (distributed on 3 Factors)	Factor 1 (Good Citizen) Factor 2 (Activist) Factor 3 (Healthy Consumer)

Authors	Number of Item	Dimension/Statement
Shrum <i>et al</i> (1995:74)	2	I make a special effort to buy products in biodegradable packages I would switch from my usual brands and buy environmentally safe cleaning products, even if I have to give up some cleaning effectiveness
Mainieri <i>et al</i> (1997:195)	8	I try to buy things that come in reusable containers I avoid using products that contain fluorocarbons
Robert & Bacon (1997:84)	30 (6 factors)	Factor 1 strongly reflects the use of recycled paper products Factor 2 reflects driving as little as possible to save energy or to reduce our reliance on foreign oil Factor 3 reflects more general recycling issues or concern about biodegradability Factor 4 reflect consumer purchase decisions and how environmental concern enter the decision making process Factor 5 strongly reflects reducing the amount of using electricity consumed which may be through judicious purchase and use of appliances. Factor 6 reflects saving electricity by using smaller wattage or more efficient light bulbs
Soonthosmai (2001:93)	1	Do you purchase green laundry detergent during this month?
Gupta & Ogden (2009:382)	1	“When you buy light bulbs, to what extent do you buy CFLs?”
Ishaswini & Datta (2011:127)	10 (5 items were adapted from Roberts and Bacon’s (1997) Ecologically Conscious Consumer Behaviour (ECCB) scale)	I would describe myself as environmentally responsible. I care about buying environmentally friendly products. When I purchase products, I try to make efforts to buy products that are low in pollutants. If I understand the potential damage to the environment that some products can cause, I do not purchase those products. I have purchased light bulbs that were more expensive but saved energy. I make every effort to reduce the use of plastic bags. I have convinced members of my family or friends not to buy some products which are harmful to the environment. I am concerned about the current environmental state the world is in. It is of no use worrying about environmental issues: I can’t do anything about them. I will not buy a product if the company which sells it is environmentally irresponsible.
Follows dan Jobber (2000)	9 (it is divided into Environmental and individual consequences)	Environmental consequences (1) How a diaper may affect the environment is important to me. (2) It is important to me whether a diaper adds to a landfill site. (3) It is important to me whether a diaper causes the depletion of forests. (4) I feel people worry too much about how disposable diapers may affect the environment. (reverse scale). (5) The amount of energy used to make a diaper is not important to me. (reverse scale) Individual consequences (1) It is important to me that diapers come in a wide range of sizes. (2) It is important to me that a diaper be convenient to use. (3) It is important to me that a diaper is very absorbent. (4) It is important to me that a diaper fits my baby properly.

Authors	Number of Item	Dimension/Statement
Chan (2001:401)	3	Shopping Frequency Amount Spent Number of items bought
Kim & Choi (2003:24)	5	I make a special effort to buy paper and plastic products that are made from recycled materials. I have switched products for ecological reasons. I make a special effort to buy household chemicals such as Detergents and cleansing solutions that are environmentally friendly. When I have a choice between two equal products, I purchase the one less harmful to other people and the environment. I have avoided buying a product because it had potentially harmful environmental effects.
Kim & Choi (2005:595)	5	I make a special effort to buy paper and plastic products that are made from recycled materials. I have switched products for ecological reasons. I make a special effort to buy household chemicals such as Detergents and cleansing solutions that are environmentally friendly. When I have a choice between two equal products, I purchase the one less harmful to other people and the environment. I have avoided buying a product because it had potentially harmful environmental effects.
Gan et al (2008:96)	1	Have you purchased a green product in the last 3 months?
Pickett-Baker & Ozaki (2008:284)	6	Use biodegradable soaps or detergents Avoid buying aerosol products Read labels to see if contents are environmentally safe Buy products made or packaged in recycled materials Buy products in packages that can be refilled Avoid buying products from companies who are not environmentally responsible
Lee (2008:580)	4	When I want to buy a product, I look at the ingredients label to see if it contains things that are environmentally-damaging I prefer green products over non-green products when their product qualities are similar I choose to buy products that are environmentally-friendly I buy green products even if they are more expensive than the non-green ones
Lee (2009:90-91)	7	I often buy organic products I often buy products that are labeled as environmentally safe I often buy products that are against animal-testing I often buy products that contain no or fewer chemical Ingredients When I consider buying a product, I will look for a certified environmentally-safe or organic stamp I often buy products that support fair community trades I often buy products that use recycled/ recyclable packaging

Authors	Number of Item	Dimension/Statement
Jansson et al (2010:362)	8 (divided into Willingness to Curtail and Willingness to Adopt)	<p>Willingness to curtail (WTC),  Decrease car travel for short distances?  Decrease car travel for longer distances?  Carpool, ride together, with others to/from work/school?  Travel more with bus/public transportation instead of using the car?</p> <p>Willingness to adopt (WTA),  A so-called environmentally friendly car?  A car fuelled mainly by ethanol/E85?  A car fuelled by gasoline and electricity (so-called hybrid)?  A car fuelled mainly by bio/natural gas?</p>
Albayrak et al (2011:192)	5	Measurement of green purchase behavior scale with 5 items obtained from Kim and Choi (2005).
Tan & Lau 2011:562	8	The survey instrument of green purchase behavior (8 items) was adopted from Kim (2002); Kim and Choi (2003; 2005).
Akehurst (2012:980)	3	Shopping Frequency Amount Spent Number of items bought
Noor et al (2012:62)		The scale is adopted from Lee (2009) consisting of 10 items was used to measure green purchase behavior
Basgoze & Tektas (2012:480)	21 (semi-structured, in-depth interviewing)	<p>13 base questions including awareness, consumption, information sources and barriers of being green</p> <p>The second part includes nine base questions about ethical issues including ethical behaviors of corporations, boycott behavior of participants, information sources, and influences of being ethical consumer</p>
Kim et al (2012:204)	17 (split into 4 factors)	<p>Health-conscious green consumption behavior  Purchase of organic foods  Purchase of seasonal foods  Purchase of foods with no artificial ingredients  Purchase of foods with eco-labels  Purchase of organic clothes  Purchase of pro-environmental furniture</p> <p>Resource-conscious green consumption behavior  Purchase of small-portion foods  Purchase of necessary products  Purchase of energy-efficient products  Purchase of used, recycled, or refill products  Purchase of products with less packaging</p> <p>Socially conscious green consumption behavior  Non-purchase of products from companies involved with environmental problems  Non-purchase of products from companies involved with unfair trade  Non-purchase at stores involved with unfair trade  Purchase of foods produced and distributed fairly</p> <p>Environmentally conscious green consumption behavior  Purchase at stores with environment-friendly sections  Purchase at stores managed by environment-friendly strategies</p>

Source: Author's collection

Based on the data in Table 4 it can be seen that the measurement of green purchase behavior varies greatly from only one statement to 30 statements. Some researchers like Karp (1996), Robert & Bacon (1997), Ishaswini & Datta (2011), Follows & Jobber (2000), Jansson et al (2010), and Kim et al (2012) split the statement into several factors to measure green purchase behavior. Although both use a single question, the measurement used by Gan et al (2008), code 1 is given if consumers buy green products, and 0 if the consumer does not buy a green product, while in the study of Gupta and Ogden (2009) of consumers who answered 6 and 7 coded 1 is a green buyer while consumers who answered 1 and 2 were coded 0, which means non-green buyer. As for consumers who responded to the middle value (3, 4, and 5) are not included in the analysis. In contrast to previous studies that the average use of questionnaires, Basgoze and Tektas (2012) uses semi-structured, in-depth interviewing which is convenient to discover respondents' point of view about an idea or subject.

### **Perceived Consumer Effectiveness and Green Purchase Behavior**

According to Antil (1978) in Majlath (2010) consumer perceived effectiveness is an assessment of how and to what extent a person's behavior will have an impact on the environment. If a person feels that he is only able to control the consequences of his actions, intentions against such action would be lower regardless of their social desires to it. Meanwhile, according to Kim and Choi (2005), consumer perceived effectiveness refers to the degree to which individuals believe that their actions make a difference in solving problems. Webb, Mohr and Harris (2008) had reported that PCE was found to be a key variable associated with socially responsible behavior. The more the respondents believed that their actions made a difference; the more likely they were to be influenced by corporate social responsibility performance and environmental impact in their purchase and usage decisions and to recycle.



Ellen et al. (1991) discover that PCE was significant to the purchase of ecologically safe products. It is consistent with the findings from Balderjahn (1988), who had reported a significant direct linkage between PCE and energy saving, and purchase of non-polluting products. Straughan and Roberts (1999) found that PCE is a predictor of ecologically conscious consumer behavior (EECB). Lee and Holden (1999) have divided the environmental behaviour into high cost and low cost behavior. PCE was reported to be significantly and positively related to high cost consumer behavior (as an active member of an environmental group, give money to clean up the environment, write to the government about the environment, and attend a demonstration on environmental issues), but was not related to the low-cost consumer behavior (seek for the biodegradable products, car pool, avoid environmental harmful packaging, and recycling behavior). Therefore, the following propositions are put forward:

P1: If an individual believe that his or her actions can make a difference in solving the environmental problems, he or she will engage in green purchase behavior.

### **Religiosity and Green Purchase Behavior**

Religiosity can be defined as the degree of a person's religious (Run, et al, 2009). The role of religion and the practices associated with it is fundamental in influencing crucial life transitions experienced by a person, such as birth, marriage and funeral rituals. Every religion has values that are very important to them as the moral value of something is right or wrong. In religion there are some restrictions on what can and can not eat, and many more aspects of life related to everyday life. These norms vary widely between different religious beliefs and the degree of implementation on the extent to which this norm is executed. All of these values, restrictions, norms will affect their buying behavior (Khraim, 2010).

Traditionally, religiosity is conceptualized as a unidimensional construct with church attendance and donations become the primary measurement tool (Bergan, 2001 as cited in Khraim, 2010). Throughout the 1960s, many empirical research was made to improve the conceptualization of religiosity and produce a valid multidimensional measurement. Using multidimensional construct in the measurement of religiosity made a more profound understanding of the importance of the dimension or a different form of religiosity. Many studies have focused on the intrinsic index (religion as a destination), extrinsic (religion as a tool) and search (religion as search) dimensions of religiosity. But according Khraim (2010) there is no consensus among experts about the number of dimensions in the constructs of religiosity. In his paper, he divided into four dimensions, namely religiosity, Islamic services, looking for religious education, the latest issue of Islamic and sensitive products.

Fam et al (2004) stated that religion is a construct that is valuable in understanding consumer behavior. In some societies such as Israel, Iran, India and Saudi Arabia, religion is the main cohesive force. Because religion is sacred, a value system accepted without question by all members of the community and become part of everyday life. Many studies have shown that religion affects the consumer attitudes and behavior in general. Similarly, the decision to process food and eating habits in particular. In many societies, religion plays a most important role in the selection of food. Research in Malaysia where the community is composed of four major world religions (Islam, Buddhist, Hindu, Christian) reports that Muslims consumers are more aware of ethnic than Christians in giving a greater emphasis on traditional family values and exhibits more conservative in the choice of clothing. From these results, it seems that religion has an influence on behavior. Therefore, the following propositions are put forward:

P2: If an individual is a religious person, he or she will engage in green purchase behavior

## **Environmental Concern and Green Purchase Behavior**

Environmental concern (EC) has various definitions which depend on perspective as well as on its complicated and unstable nature (Chan and Lau, 2004 as cited in Albayrak 2011). For example, Crosby et al. (1981) defined it first as an intensely protective attitude towards the environment and later, as a general attitude which has an indirect influence on attitude via behavioral intent (Gill *et al.*, 1986). On the other hand, several studies assume that EC is synonymous with environmental attitude (Chan and Lau, 2004). According to Chan and Lau (2004), Dunlap and Jones (2002) offered one of the most inclusive definitions of EC. In their definition, EC is accepted as an individual's awareness of environmental problems and that individual's attempts to solve either them or willingness to contribute to such attempts.

Many researchers argue that environmental awareness and concern have increased since the early 1970's (Albayrak et al, 2011). Bang et al. (2000) found in their study that consumers who were more concerned about the environment expressed more willingness to pay more for renewable energy than those who were less concerned about the environment. The study suggests that the consumer's environmental concern and beliefs about renewable energy to date are more emotionally charged than fact- or knowledge-based. According to Lee (2009) environmental concern is predictor of green purchasing behavior.

Next, Kim and Choi (2005) point out that it is much more probable that people who are highly concerned about environmental issues will purchase environmentally friendly products than those who are less concerned. Many studies are also based on the assumption that the degree of EC has a direct and strong influence on people's behavior with regard to recycling and energy saving, environmental friendly product purchase or travel mode choice (Bamberg, 2003 as cited Albayrak et al, 2011:191).

Within the sample frame of Ishaswini and Datta (2011) study, it may also be suggested that consumers' pro-environmental concern is a likely predictor of their green buying behavior, although such conclusions may only be drawn after a more rigorous analysis based of a randomly generated dataset. The study suggests that educated Indian consumers are concerned about the environment and such pro-environmental concerns influence their green buying behavior to some extent, thereby leading to purchase of eco-friendly products. Therefore, the following propositions are put forward:

P3: If an individual is concerned about the environment, he or she will engage in green purchase behavior

### **Environmental Knowledge and Green Purchase Behavior**

In general, a person can do something effective to achieve the goals when they have enough knowledge on what is to be achieved. Knowledge is a prerequisite for effective action. Knowledge is the degree to which an information possessed by individual is accurate information (Ajzen, Joyce, Sheikh, & Cote, 2011). Environmental knowledge is defined as knowledge of what is known about the environment, which leads to environmental impact, as the appreciation of the overall system and the shared responsibility needed for sustainable developmen (Mostafa, 2007). Another definition of the environmental knowledge presented by Conraud-Koellner and Rivas-Tovar (2009), which defines environmental knowledge as a series of ecological knowledge possessed consumers regarding environmental topics. Both researchers believe that knowledge is influenced by ethnocentrism ecological environment, the degree of information, past behavior, and perceptions of environmentally friendly products. On the other hand, Chan and Lau (2000) define knowledge of the environment as the amount of knowledge a person has

about environmental issues. Mostafa (2009) highlights the importance of environmental knowledge in predicting the environmentally friendly behavior. In his research, he found a significant relationship between environmental knowledge and eco-friendly behavior. Therefore, there is a possibility that the higher the level of environmental knowledge, the possibility of generating environmentally friendly behavior better as the intention to buy environmentally friendly products. Therefore, the following propositions are put forward:

P4: If an individual has higher environmental knowledge, he or she will engage in green purchase behavior

### **Green Purchase Behavior and Life Satisfaction**

Among all the variables that have been discussed, there is one study that makes green purchasing behavior as the independent variable which is the next green purchase behavior will affect life satisfaction (Xiao & Li, 2011). Research conducted by Dun et al (2008) indicates that social expenditure relating to such donations contributes to life satisfaction and life satisfaction is a measure common in the Subjective Well Being (SWB).

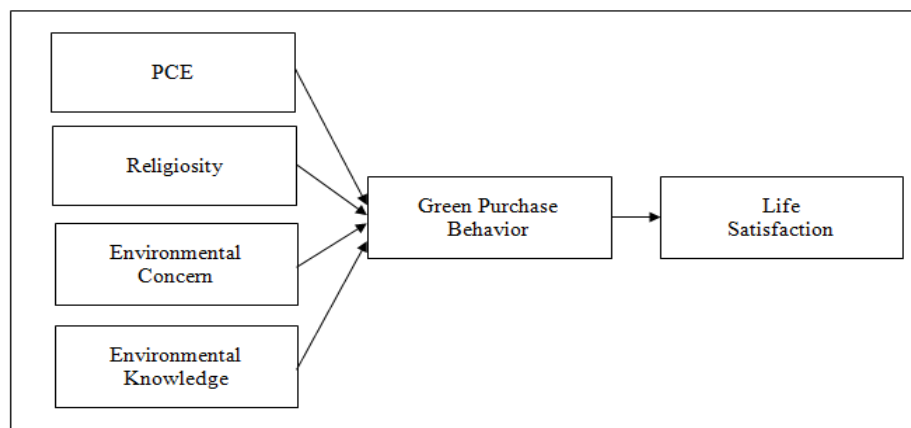
Lynbomirsky et al. (2005) discusses happiness research literature and summarize the three factors that affect happiness: (a) set points (50%), (b) circumstances (10%), and (c) intentional activity (40%). They stressed the importance of the intended activity and stated that in order to develop effective interventions to increase happiness, activities designed or behavior are important factors that must be considered. Their results provide evidence for this argument. Other studies on the behavior and happiness support this opinion. For example, research on college students showed that the positive financial behaviors contribute to financial satisfaction and life satisfaction (Xiao et al. 2009). Another research study by Brown and Kasser (2005) reported results that individuals higher in subjective well-being reported more ecologically

responsible behavior. In 2012, Xiao and Li conducted research to examine the relationship between green purchase and life satisfaction using data collected from 14 cities in China. The findings indicate that consumers who intend to purchase environment friendly products and report having done so score higher on life satisfaction than other consumers. Based on previous findings, the following propositions are put forward:

P5: If an individual who tend to purchase green product, he or she will has higher life satisfaction

Based on propositions that have been put forward, the research paradigm proposed in this paper is illustrated in Figure 1 below:

Figure 1  
Proposed Model of Antecedents and Consequences of Green Purchase Behavior



## **FUTURE RESEARCH**

The effect of PCE, religiosity, environmental concern, environmental knowledge on green purchase behavior have been tested by previous research. So did the influence of green ourchase behavior towards life satisfaction. But research that combines all these variables together of the author's knowledge has never been done, especially in the context of consumers in Indonesia. Based on the theoretical and empirical literatures cited before, a conceptual model which integrated the effects of PCE, religiosity, environmental concern, and environmental knowledge

on green purchase behavior and its impact on life satisfaction is proposed and shown in Figure 1.

Thus, the research objectives of future research are proposed as followings:

- To identify the major predictors that will most likely influence green purchase behavior. In this situation, factors such as PCE, religiosity, environmental concern, and environmental knowledge will serve as the independent variables, and green purchase behavior will serve as the dependent variable.
- To examine the relationship between green purchase behavior and life satisfaction.

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