

Green Marketing Towards Green Purchase Behavior

Muhammad Abid¹, Tehreem Abdul Latif²

¹Assistant Professor, GIFT University, Gujranwala, Pakistan, abid.awan@gift.edu.pk

²Research scholar, GIFT University, Gujranwala, Pakistan, tehreemlatif1992@gmail.com

Abstract:

The purpose of this study is to examine green buying behavior among people who are inquisitive to save environment against detrimental consequences. Moreover, it elucidates the factors that sway consumer buying behavior pertaining to environmental friendly products and develop a strong rapport with green products. Further, this research unearths the impact of eco-awareness, environmental liability, external factors, green risk, cognitive recognition, and green trust on green buying behavior. Scales of all constructs are adapted from previous studies. Data was collected from 450 university students who are cognizant of green purchasing. Convenient sampling was employed for data collection procedure. Structural equation modeling (SEM) was exerted for data analysis. This study provides guidelines to state governing bodies to deploy consumer choices in a way that they demand and buy green products. This research is restrained to educated consumers, further can construe the comparison between educated and uneducated individuals. This is survey based research but consumer behavior studies give more persistent results if experiment design is employed as a methodology.

Keywords: Eco-friendly products, green marketing, green products, consumer green buying behavior, green labeling, socially responsible behavior

Introduction

Green marketing is a prevalent opaque phenomenon of 21st century. Every country is facing green problems and focusing towards environment protection as well as green purchase behavior (Traistaru, 2013). Green marketing provides eco-friendly products that satisfy human's need and less resonate to natural environment. It serves numbers of activities such as production process, packaging, and changing modes of advertising that enhance eco awareness as well as eco liability (Kumar, 2013). Now a day's consumers are shrewd and seriously concerned their surroundings. In this way, they are eager to pay premium prices to get green products. It provokes firms to change their production processes that are environmental friendly (Kumar, 2013). This is beneficial for every stakeholder; consumers, company

owners, and society as a whole. Green marketing is a first step to fulfill consumers' needs pertaining green in limited resources (Polonsky, 1994; Arslan & Geoce, 2013).

Green marketing is a process of protecting environment from disasters caused by human's negligence for the sake of making economic edge over the social measure (Danciu, 2006). Through this, consumers have better judgmental approach to critically evaluate the things and make rational decisions (Meyer, 2001; Polloi, 2013). Green practices cannot flourish until policies, strategies, and products are shaped according to environmental concerns (Danciu, 2013). Green push and pull initiatives and strategies tremendously contribute to create sustainable development. Green practices are less implemented in underdeveloped countries where eco-orientation and awareness is not

available for improving quality of life (Bhowmick, 2012; Rasdi, 2001). Due to less awareness, people in these countries are still resisting to exert eco-friendly products since consumers cannot differentiate green and conventional products (Hasan, Hartoyo, Sumarwan, & Suharjo, 2012). In similar vein, there is no culture and tendencies that trigger individuals' minds towards green products. There is utmost need to take ecological actions by industry and general public in order to wield societal and environment friendly culture that benefits to society (Ottman, 2011; Hasan *et al.*, 2012).

Green marketing concept can be divided into four phases (Erbaşlar, 2007). In first juncture, green products/services are only presented to green consumers. This stage is called green targeting in which only those consumers are targeted whose are interested to buy eco-friendly products. In second phase, a mechanism or strategies are developed to persuade consumers for green buying. Only green products are manufactured at third level. In fourth stage, the purpose is not only to manufacture and use green products but it is social obligation to communicate those persons who have inadequate knowledge about eco-friendly products. Green consumers preferably use green products and induce others. These consumers are not only playing the role of opinion leaders but also performing the role of information seekers.

Athens Laboratory of Research in Marketing (Pakistan) has revealed that 92% of customers have shown affirmative behavior on ecological issues (Ali, Ali, Ahmad, 2011). In general, green products are exorbitant since eco-friendly products carry high production cost (Mahenc, 2008). One survey indicates that consumers are willing to pay 7% to 20% premium prices for green products than non-green products (Reitman, 1992; Ali *et al.*, 2011). According to Natural Marketing

Institute Reports (Pakistan), more than \$200 billion market of lifestyles, health and sustainability is expected to get doubled by the end of 2010 and will grow four times more by the end of 2015 (Widger, 2007).

Now-a-days green marketing is imperious need of economy as we have limited resources and there is no apposite way to earmark them. It is a growing need to construe those factors which build human behavior towards buying of green products. Further, it elucidates that how green buying behavior can be bolstered by green advertising as well as cognitive recognition and green trust. By taking into consideration of former discussion, it is imperative to know indispensable factors of consumer purchase decision pertaining green product.

Literature Review

Currently, global warming has become a disquieting question. Its significance cannot be denied since numerous environmental issues are getting raised that depleting ozone layer, acid rain, drought, and floods (IPCC, 2007; Mida, 2009). According to scientists, world is moving towards a paradigm where the need of effective practices are instantly required to save green pasture of earth (Kumar, 2013).

Eco-awareness getting started enriched in 1960s and concept of green has become strenuous. Afterward, since 1990s, environmental concerns have thrived and became an indispensable matter (Ali *et al.*, 2011). It was surveyed in Europe, in near future, consumers will make purchase decisions on the basis of environmental consideration that is known as green marketing (Ali *et al.*, 2013).

From last few decades, people are concerned about environment since they are getting aware about the consequences of non-green products. Individuals are showing responsibility in order to improve their acts that save nature from predatory effects (Pedersen, 2000). Individuals and organizations

are motivated to play their part in social responsibility that give the result of recycling garbage, buying organic food, products that save resources of oil consumption, electricity consumption, water and heating wastage, abridged use of chemical in household activities, and usage of public transport. Many developed and underdeveloped countries are taking initiatives to save environment (Eden, 1993; Scherborn, 1993; Linden, 1994; Strandbakken, 1995; Pedersen, 2000).

The term green marketing has evolved in late 1980s that severely captured the attention towards problems faced by nature (Shrum, John, Tina, 1995). Individuals are becoming more aware and curious about green buying. Green behavior can be deemed as an action of individuals or institutions that put minimal impact on environmental disturbance and helps natural resources for sustainable development (Halpenny, 2006; Mainieri, Barnett, Valdero, Unipan, & Oskamp, 1997; Tilikidou, 2007). Previous literature refers that products that do not leave detrimental consequences on nature are considered green products (Shamdasaniet, Chon-Lin & Richmond, 1993; Soonthonsmai, 2007). Individuals who take responsibility to decontaminate the environment are termed as green consumers since they feel more contented in using green products as they want to deliver their good part in society (Shrum *et al.*, 1995; Tilikidou, 2007; Tan, Yeap, 2012). Since 1970s, people are becoming more acquainted about environmental problems that lead to change their behaviors toward green buying (Rizwan, Asif, Asghar, Hassan & Javeed, 2013).

Green Purchase Behavior (GPB): Green buying behavior is said to be the likelihood and readiness of an individual to prefer green products (Rashid, 2009). Green buying commitments are primarily due to core features of products that are environmental

friendly (Tilikidou, 2007). Green purchase behavior will urge individuals to acquire products that are less deleterious in nature and not impair the routine life style (Vazifehdoust, Talegrani, Esmailpour, Nazari & Khadang, 2013). The decisive goal of green products is to reduce harmful impact on environment and increase productivity from available resources. Today, people are realizing importance of green buying for the benefit of their health and environment (Vazifehdoust *et al.*, 2013). In nutshell, green buying behavior is strident people to buy green products for adding value to nature and save environment (Vazifehdoust *et al.*, 2013).

Eco-Awareness (EA): Environmental awareness is general knowledge of any individual about facts and its consequences on environment (Vazifehdoust *et al.*, 2013). It sways the knowledge of individuals on buying of green products (Akehurst *et al.*, 2012). It is a preliminary move to influence purchase of green products (Pillai, 2013). Further, it involves careful attention towards society and caters their behaviors pertaining to green buying (Vazifehdoust *et al.*, 2013). People are divided into different groups on the basis of their preferences in which some are more inclined towards green buying (Mceachern & Carrigan, 2012) since they consider themselves as more responsible citizens. In general, individuals are risk averse which are more informed and aware about environment since they show greater concern about environment friendly products (Rizwan *et al.*, 2013). Therefore, first hypothesis derived from literature is;

H₁: Eco-awareness significantly decreases green risk.

Environmental Liability (EL): Liability can be deemed as emotional involvement in environmental issues (Lai, 2000). Hitherto, the sense of liability is weak among individuals but it can be enhanced by informing the

associated risk (Strong, 1996). Consumers of green products feel themselves much liable to environment (Shamdasaniet, 1993; Arslan&Geoce, 2013) since they know the benefits by using green products and risk associated with non-green products. These consumers are keen to protect natural resources that lead to purchase environment friendly products (Ottman, Stafford & Hartmann, 2006; Arslan&Geoce, 2013). In broad-spectrum, people who have even little knowledge about environmental issues they still care and show responsible attitude towards environment (Ling-ye, 1997; Rashid, 2009). The more the people feel themselves as responsible person the more they build their cognition towards green actions. Previous studies show that people involve themselves to solve environmental problems with the belief to save environment (McCarty & Shrum, 2001). Liability is an imperative factor that will decrease the risk of using green products (Ansar, 2013). Green risk is inversely related to environmental liability since a sense of responsibility will reduce the risk towards green products (Ansar, 2013).

H₂: Environmental liability significantly decreases green risk.

H₃: Environmental liability significantly enhances cognitive recognition.

External Factors (EF): Information about surrounding plays vital role since people strongly believe that they get awareness from their peripheral (Kumar, 2013). Social interactions and media are those factors that manipulate consumers' intentions. In fact, consumers' knowledge is enhanced through these factors and they become more cognizant to make themselves liable towards society/nature (Green Indonesia report, 2011). Currently, media is playing essential role in the lives of people since individuals voluntarily alter their behavior through media influence. Consumers, in general, make their

self-identity according to contiguous environment in which they live. Through media and social interaction people are aware about environmental issues and product features (Glaser, 2009; Hasan *et al.*, 2012). Purchasing patterns are changed due to social media since it fills the gap of knowledge and reduce perceived risk of green products (Haytko&Matulich, 2008; Vazifehdoust *et al.*, 2013). External sources provide help in exerting environmental knowledge to reduce risk of using green products. Thinking patterns of individuals get changed as they are communicated about green products through their surroundings since they considered themselves as a liable person (Attaran, 2013).

H₄: External factors significantly enhance the negative impact of eco-awareness on green risk.

H₅: External factors significantly enhance the positive impact of environmental liability on cognitive recognition.

Green Risk (GR): Risk is primarily peril in mind that a particular product will not act according to expectations. It is a foremost factor that influences buying behavior (Murphy & Enis, 1986) and trust would be increased by decreasing risk that further enhances buying behavior. Augmented environmental concerns are stimulating buyers to embroil in less risk that would increase their trust on green products (Rizwan *et al.*, 2013; Ali *et al.*, 2011). Consumers willingly buy products/services in which less risk is involved. Individuals are more concerned toward green buying due to their high trust and less risky nature.

H₆: Green risk significantly decreases green trust on product/services

Green Trust (GT): Trust means expectations, promises, and belief to rely on (Rotter, 1971; Ozanne, 1985). Trust is a factor that cannot be

developed without any prior knowledge of the domain. Consumers trust or confidence on green product urges them to buy those products that would not spoil the environment (Rizwan *et al.*, 2013; Ali *et al.*, 2011). Less risk on green products strengthen the trust of consumer towards effective green buying (Chen & Chang, 2012; Asnsar, 2013). Reliability and trust significantly inculcate consumers to buy green product (Rizwan *et al.*, 2011; Ali *et al.*, 2011). Trust is likely to form a positive purchase behavior towards green product (Lau & Lee, 1999). Previous studies postulate that positive green trust has ultimately led to green buying behavior (Berger & Cobin, 1992; Bedrous, 2007).

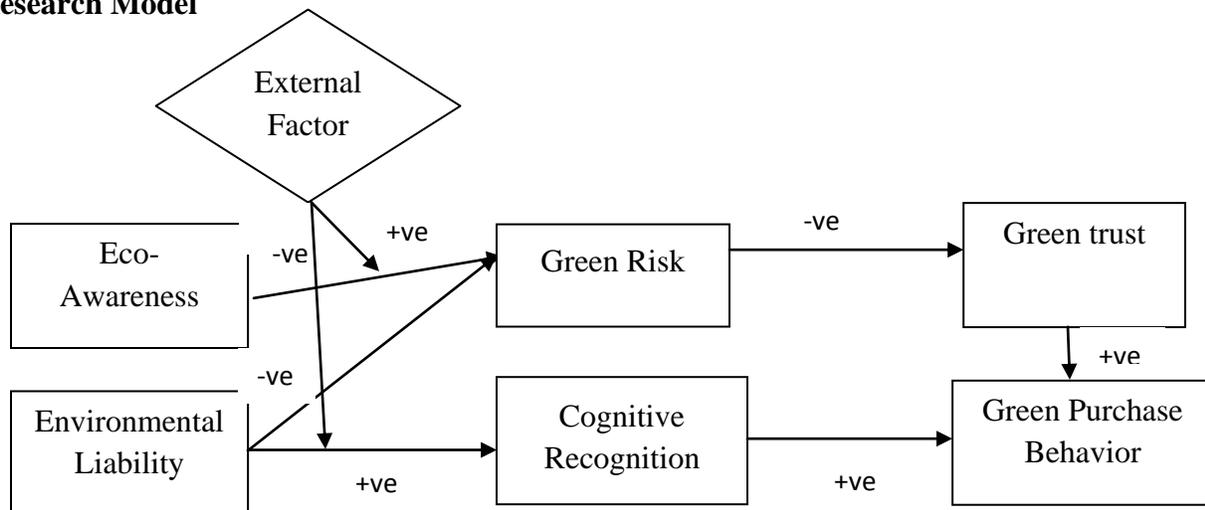
H₇: Green trust is significantly enhances green purchase behavior.

Cognitive Recognition (CR): Cognition holds emotional attachment, thinking stream,

desires, and intentions. Environment cognition is a momentous predictor of consumer buying behavior (Sanchez, 2012). Consumers give positive response toward products which efficiently meet their requirements that are based on their cognition (Nameghi & Shadi, 2013). Individuals keep positive thinking/cognition to use green product as a result of their environmental claim (Mainier *et al.*, 1997). Cognition would change consumption patterns of consumers (Schultz & Wesley, 2000) and consumers will tilt towards green buying if they keep in their minds about green consumption. Cognition serves as a motivator for environmental concerns of the individual (Hopper & Nielson, 1991) that leads towards green buying.

H₈: Cognitive recognition significantly enhances green purchase behavior.

Research Model



Research Methodology

Instrument Development and Data Collection

Extensive literature review was exerted for instrument selection. Seven items of environmental awareness, seven items of environmental liability, six items of green trust, first two items of green risk and first item of green buying behavior were adapted from Rizwan *et al.* (2012) whereas last three items of green risk and two items of green buying behavior were adapted from IshaSwini and Datta (2011). In addition to this, five items of green buying behavior and six items of external factors were adapted from Hoang (2012) whereas five items of cognitive recognition were adapted from Kim and Choi (2005). First part of the instrument encompasses the items related to different constructs and second part comprised of respondents demographics.

Content validity was examined through domain experts. The purpose of content validity is to examine how much items of a particular construct measure the variable (Cooper & Schindler, 2001). Instrument was comprised of 48 items including demographics. Except demographics all items were measured at 7 point likert scale (Strongly Disagree=1, Somewhat Disagree=2, Disagree=3, Neutral=4, Agree=5, Somewhat Agree=6, Strongly Agree=7). Instrument is attached in appendix A.

Self-administered questionnaires were distributed among 545 respondents and 450 were obtained as a useful sample. Response rate of this study was 83 percent. Sample frame of this research are those Individuals who are aware or users of green products. Convenient sampling technique was employed for data collection. Demographic analysis of respondents is presented in appendix B.

Data Analysis and Results

Reliability test was run to examine either items of particular construct are hang together and defines a single concept from different perspectives or not? It also tells internal consistency between items. Chronbach alpha was exerted to check the reliability and suggested value of Chronbach alpha is at least 0.70 (Nunnally, 1967; Nunnally, 1978). Reliability scores of all constructs lie within suggested range (see Table 1).

Table 1

Reliability analysis (inter item consistency)

Sr. No.	Variable Name	Chronbach Alpha	No of Items
1	EA	0.850	7
2	EL	0.793	7
3	EF	0.783	6
4	GR	0.810	5
5	CR	0.801	5
6	GT	0.797	6
7	GB	0.848	8

EFA was carried out to check the reflection of items on one variable. Before formally run this test, two assumptions must be fulfilled i.e. KMO and Bartlett test. The value of KMO should be greater than 0.60 and Bartlett test must be significant at 5% (Pallant, 2001). In table 2, KMO values are greater than 0.60 and Bartlett test is significant at 5% for all of constructs. Further, loading scores of all items are greater than suggested threshold values i.e. 0.40 (Gorsuch, 1983; Black, 1998; Crompton, 1992). It is considered being good if the value of variance explained is greater than 40 percent and variance explained for all constructs are greater than 40% in beneath table.

Table 2
Exploratory Factor Analysis

Serial no	EA	EL	EF	GR	CR	GT	GB
1	.541	.400	.474	.560	.499	.580	.503
2	.567	.443	.646	.598	.593	.624	.556
3	.603	.468	.471	.588	.626	.621	.539
4	.589	.612	.482	.486	.555	.594	.471
5	.400	.558	.614	.617	.525	.426	.466
6	.459	.403	.428			.455	.588
7	.539	.481					.462
8							.409
Variance explained%	52.803	44.801	48.590	56.996	55.959	51.689	48.664
KMO	0.879	0.805	0.757	0.814	0.808	0.851	0.879
Bartlett	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Confirmatory factor analysis is used to check the relationship between manifest and latent variables (Nathan, 2003; Fidell, 1996). Amos 16.0 was employed to run confirmatory factor analysis. The loading scores of each item should be significantly greater than 0.40 (Tait, 1986). In table 3, loading scores of all items are significantly greater than 0.40 (see table 3).

Table 3
Confirmatory factor analysis (loading scores)

	EA	EL	EF	GR	CR	GT	GBB
1	.674	.492	.521	.675	.621	.707	.676
2	.710	.452	.482	.709	.700	.754	.702
3	.732	.497	.621	.699	.736	.726	.699
4	.725	.756	.712	.602	.661	.714	.615
5	.553	.711	.581	.714	.632	.553	.622
6	.606	.570	.622			.403	.727
7	.683	.656					.525
8							.558

Plethora of indices were discussed to examine the fitness of model but most imperative indices which reported in every study are; $\chi^2/df = 2.99$, RMR = 0.07, RMSEA = 0.092, GFI = 0.75, CFI= 0.70, TLI= 0.85 (Kelloway,

1995; Hair *et al.*, 2006; Bentler, 1990). Generally, some indices meet the criteria and some do not. Most essential indices are RMSEA and CMIN/df that should be less than 0.10 and value of χ^2/df should be close to 3. For overall fitness of measurement model, multiple global fit indices are presented. Model is considered to be moderately fit and acceptable if some global fit indices are slightly different from suggested criteria (Kimet *al.*, 2004). Results of global fit indices were presented in table 4 and all scores lie in suggested range.

Table 4
Measurement model fit indices

	EA	EL	EF	GR	CR	GT	GBB
CMIN/DF	3.83	12.06	3.21	7.16	8.26	2.73	5.21
P value	.00	.00	.00	.00	.00	.00	.00
RMR	.07	.16	.07	.07	.08	.05	.08
GFI	.96	.89	.94	.96	.96	.98	.94
AGFI	.93	.78	.91	.90	.88	.95	.89
NFI	.95	.80	.93	.94	.93	.96	.91
TLI	.94	.73	.82	.90	.88	.96	.89
CFI	.96	.82	.97	.95	.94	.98	.92
RMSEA	.07	.15	.062	.11	.12	.06	.09

Correlation tells the strength and direction of relationship between two variables. In table 5, all variables are significantly correlated with each other.

Table 5
Correlation Analysis

Var	EA	EL	EF	GR	CR	GT	GB
EA							
EL	.60						
EF	.50	.71					
GR	.62	.64	.74				
CR	.54	.68	.71	.75			
GT	.60	.64	.66	.69	.72		
GB	.87	.67	.52	.61	.55	.63	

Note: all results are significant at 1%.

Model of this research is tested in two phases. At first stage, SEM was run through Amos by excluding moderator and in second phase moderating effect has checked through SPSS. In beneath table 6, EA significantly decreases GR that supports first hypothesis ($\beta = -0.975$, p-value < 0.05). Second hypothesis is EL significantly decreases GR ($\beta = -0.952$, p-value < 0.05) that supports second hypothesis. EL significantly increases CR ($\beta = 0.991$, p-value < 0.05) and third hypothesis is accepted. GR insignificantly decreases GT ($\beta = -0.019$, p-value > 0.05) that does not support sixth hypothesis. GT significantly increases GBB ($\beta = 0.975$, p-value < 0.05) seventh hypothesis is accepted. GBB is significantly increased by CR ($\beta = 0.974$, p-value < 0.05) that supports eighth hypothesis of this study.

Table 6
Path Coefficients

	Estimates	P Value	Hypothesis
GR <--- EA	-.975	***	Support
EL <--- GR	-.952	***	Support
CR <--- EL	.991	***	Support
GT <--- GR	-.019	.887	Not support
GT <--- GR	.975	***	Support
GBB <--- CR	.974	***	Support

Variables	β	S.E	t-value	p-value	hypothesis
Constant)	3.3	.10	31.2	.00	
ELEF	0.7	.00	21.3	.00	Supported

Variables	β	S.E	t-value	p-value	hypothesis
Constant)	3.2	.10	31.2	.00	
EA EF	-0.7	.00	21.7	.00	Supported

Most essential indices are reported in this study ($\chi^2/df = 3.76$, RMR = 0.094, GFI=0.909, AGFI=0.872, NFI=0.868, TLI=0.873, CFI= 0.90, RMSEA = 0.078). This model is moderately fit since some of global fit indices are not fulfilling the suggested criteria (Jeong, 2004). However, model is said to be moderately fit if some of global fit indices are less than suggested criteria (Jeong, 2004).

Moderator Effect

In second phase, EF is moderator between EA and GR as well as in EL and CR. In table 7, a regression analysis was run to examine the moderation effect. EA has significantly decreased green risk with moderating effect of EF ($\beta = -0.72$, p-value < 0.05) so forth hypothesis is accepted. EL significantly impact CR with moderating effect of EF ($\beta = 0.71$, p-value < 0.05) and fifth hypothesis accepted.

Table 7
Impact of Moderator

Variables	β	S.E	t-value	p-value	hypothesis
Constant)	3.2	.10	31.2	.00	
EA EF	-0.7	.00	21.7	.00	Supported

Note: a) Dependent Variable: GB
 $R^2 = 0.513$, $f(1, 448) = 471.258$, P value < .01

Note: a) *Dependent Variable: GB*
 $R^2 = 0.504$, $f(1, 448) = 454.433$, $P \text{ value} < .01$

Discussion

First hypothesis of this study is supported i.e. green risk significantly decreases by environmental awareness. Through environmental awareness green risk is reduced and people will show positive attitude towards green products. Second hypothesis EL significantly decreases GR which is also supported. EL makes consumers liable with environmental issues and tilt towards green products since they consider that risk involved in these products is less. Once they feel themselves liable towards economy they are less indisposed towards green products.

Third hypothesis EL significantly enhances CR is accepted. In environmental liability, people feel themselves liable to society and environment. When people become more socially responsible they keep more cognition towards green buying. Fourth hypothesis is environmental factors moderating the impact of EA on GR. This hypothesis is also accepted. By and large, eco-awareness would be enhanced when external factors are more in sway that leads to decrease green risk. Fifth hypothesis is EF moderating the impact of environmental liability on cognitive recognition is supported. Environmental factors fill the gap and trigger people to think about their responsibility towards nature.

Green risk significantly decreases green trust is sixth hypothesis of this study. Empirical evidence shows that green risk is not contributing towards green trust. Green intentions and green values are also contributing to decrease risk that ultimately increases green trust (Ansar, 2013). Green awareness is not capable enough to reduce green risk that will lead to enhance green trust (Ansar, 2013). Green trust can also be less since people do not believe in sellers of green products. So, there is a need to reduce the gap

between seller and buyer (Gregg & Walczak, 2008; Rizwanet al., 2013). People in our region are showing negative attitude towards green products since they think quality of green products as grey and not green. GR is not being fully helpful in creating the trust of consumer.

Green buying behavior positively sway by green trust is seventh hypothesis of this study which is being accepted. Consumers' trust/confidence on green products will ultimately urge the users to buy product that will not spoil environment. The eighth hypothesis of this study is cognitive recognition significantly increases green buying behavior which is accepted. CR is mental stream or belief of any individual while buying any product. Now people are more responsible towards economy and take rational decisions while buying.

Academic, Managerial, and Policy Implications

This research will add value to literature of green marketing. This study presented different factors that stimuli green buying behavior towards green products. It reveals that some individuals are concerned about environment but do not inclined towards buying of green products since they asserted that green products are expensive. This research helps a lot to those people who want to do research in the area of green branding or marketing.

Green marketer can get to know about profile of green consumers and their preferences. Managers should adopt better marketing mix by keeping in mind environmental factors to attract potential consumers. This research will help those companies who are in the business of green products. This study provides guidelines that how companies can maneuver their strategies to entice consumers. In similar vein, managers should work on behavior of people since behavior modification is

imperious factor toward green buying. Companies should more focus on cognizance of green products and must internally trigger individuals towards socially responsible buying. This research is advantageous for marketers and manufacturers that help them in developing prototype of green products that are being offered to consumers.

Consuming green or environmental friendly products is a source of competitive advantage for people and state government since fewer precautions would be needed to keep the environment safe. There is need to put strong endeavors from both general public and government to reduce detrimental consequences of producing non green products. This research will help a lot for policy makers about how they can impart their role towards green production and buying. They should give incentives and other environmental awareness programs that encourage management and consumers to adopt green production and consumption. Consequently, green marketing policies should design by government a step ahead to save environment. Green buying behavior is essential since it is directly associated with eco-friendly environment. For healthier life, environment plays significant role. Government should take initiatives by conducting country level seminars on the importance of green products.

Conclusion

The findings show that people are concerned about environment and they are ready to buy green products but traditional attributes i.e. price, quality, and brand are still matter of importance for them. Results reveal that people who graduate/postgraduate are more likely to buy green products. All hypothesis of this study are accepted except one hypothesis i.e. green risk significantly decreases green trust. This study posits that people are getting more concerned about environment and moving toward products that are less harmful to their health and society. Through this

research people would more informed about green products and their consequences. Green buying behavior can be promoted if effective marketing strategies are devised. Through eco-awareness, one can create the knowledge of eco-products. Enterprises and organizations are launching green products/services that are responsible to cater the minds of consumers through awareness.

Limitations and Future Research

In future, one can investigate the mechanism through which green buying behavior has evolved. This is cross sectional study but more accurate results can be found if this study is conducted through longitudinal methods. This research is survey based but consumer behavior studies give more reliable results if experiment method is employed. Through experiments one can able to get internal feelings of consumers. Green intentions and values can be added as antecedents of eco environment since by adding these constructs rejected hypothesis may be accepted.

This research is only based on urban areas but future research can be conducted on rural areas where people are less informed about green or environment friendly products. People from rural area, are less knowledgeable about harmful consequences of consuming non-green products. Comparison of buying behavior between rural and urban areas can be investigated. This research is restrained to educated consumers, further can construe the comparison between educated and uneducated consumers. Additionally, influence of perceived consumers' effectiveness on environmental attitude can be examined. Future research can be conducted by exerting some more constructs in existing model like green commitments and green loyalty with all of dimensions.

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Appendix A

Questionnaire

<i>Items</i>	<i>Measurement</i>
Eco-awareness	I am aware of the environmental efforts exerted by different products. I have seen some environmental labels and slogans for green products. I have seen some environmental labels and slogans for green products. I recognize the meaning of the environmental slogans and symbols of green products.

	<p>I remember some of the environmental symbols that are used on products.</p> <p>If I notice an environmental label on one brand then I will prefer to use it.</p> <p>I am aware of products that save energy resources.</p> <p>I use products that are energy efficient.</p>		<p>green products through various information channels.</p> <p>I get most knowledge of the green products from product packaging.</p> <p>I get to know about green products through my social circle.</p> <p>Social media has caught my attention towards green products.</p> <p>My social circle is a source of information of green products.</p> <p>Through word of mouth the attention of green buying gets enhanced.</p>
Environmental liability	<p>I should be responsible for protecting our environment.</p> <p>I have taken responsibility for environmental protection since I was young.</p> <p>Environmental protection is the responsibility of the Pakistan government, not me.</p> <p>Environmental protection is the responsibility of the environmental organizations, not me.</p> <p>I would describe myself as environmentally responsible.</p> <p>I am concerned about the current environmental state the world is in.</p> <p>I consider the damage cause to the environment due to mankind.</p>	Green risk	<p>Grey products would get environmental penalty or loss if used.</p> <p>Using non-green product will negatively affect the environment.</p> <p>Grey products will not work properly with respect to its environmental design.</p> <p>Non-green products will result in something wrong with environmental performance.</p> <p>I do not buy a product if it is environmentally irresponsible.</p>
External factors	I got relevant information about the	Cognitive recognition	<p>I believe that the information about the green labels on the packaging or instruction is accurate.</p> <p>I personally feel green products good for</p>

	<p>health. Protection of society is matter of importance. I believe that the green labels on the products are reliable, which means they reach the green standard. I believe in using product that least effect the society.</p>		<p>protection I believe in any products owning green labels.</p>
Green trust	<p>Green product's environmental reputation is generally reliable. Green product's environmental performance is generally dependable. Green product's environmental claims are generally trustworthy. Environmental concern of green products meets my expectations. Green product keeps promises and commitments for environmental</p>	Green buying behavior	<p>I care about buying environmentally friendly products. If I understand the potential damage to the environment that some products can cause, I do not purchase those products. The products with green labels are more attractive to me. The probability of buying the products with green labels is high. I am willing to pay more money for green products. I have switched products for ecological reasons. I have avoided buying a product because it had potentially harmful environmental effects.</p>
	<p>I make a special effort to buy household chemicals such as detergents and cleansing solutions that are environmentally friendly.</p>		

Appendix B

Demographic Analysis

Variable	Category	Percent	Variable	Category	Percent
Gender	Male	53.6	Income	Below 20,000	48.7
	Female	46.4		20,000-30,000	19.8
Age	Below 30	93.6		30,000-40,000	10.7
	30-40	5.6	Above 40,000	20.9	
	40-50	0	Qualification	Graduate	58
	Above 50	.9		Undergraduate	42