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WILLINGNESS TO PAY FOR ENVIRONMENTALLY FRIENDLY PRODUCTS AMONG VARYING INCOME HOUSEHOLDS OF LAHORE

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Abstract

In order to promote environmentally friendly products in Lahore, this study determined the willingness to pay for eco-friendly or green products for healthy environment. Three different areas were selected depending on income level. Mozang, Shadman and DHA were selected as low, medium and high-income area. Quantitative data was collected from 305 households as total of low, medium and high income in Lahore. Results were investigated by using Statistical Package for Social Sciences (SPSS). The results accepted 88% hypothesis through factor analysis. The correlation in results showed a positive relation between environmental knowledge and level of education whereas another positive relation between willingness to pay and environmental knowledge. Results showed that people from all areas of income were willing to buy environmentally friendly products but due to high prices, low income households could not afford it. Affordable Environmentally friendly products should be introduced for low income household as they were concerned with protection of environment and willing to buy eco-friendly products but due to high prices, they could not manage to pay for it.

Keywords

Willingness to pay; Environmental-friendly products; Theory of planned behaviour

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1. Introduction

People are becoming interested in environment friendly products which are developing day by day in our community. Around the globe, people are more willing to use organic and eco-friendly products, they also prefer to use green products. But this perception is lower in Pakistan as Pakistan is developing country. Many companies in Pakistan have introduced eco-friendly shopping bags and products at

high prices. The factors such as waste generation, air pollution, climate change, and natural disasters have changed the world's environment. These factors have impacted the living organisms. The economic and social statues of people have been also affected by these factors. There is an over utilization of the natural resources that is leading towards the environmental degradation. In Lahore, there is increase of population as well urbanization

and industrialization. Due to these factors, some of the major environmental issues have arisen. The issues such as greenhouse gas emissions and solid waste pollution. Due to these problems, the consumers and organizations are inclining towards the steps to minimize the degradation of environment. Consumers are paying attention towards environmental friendly products to save the environment. The environmental friendly products save the environment as they have less negative impacts on the environment and do not pollute the environment.

The green products are reusable and recyclable. They consist of the ingredients that revive and protect the environment. They protect the environment by reducing the pollution, toxic agents and they are believed to conserve the energy resources. Natural resources are not depleted by the green products. The green products are widely used globally they have a lot of environmental benefits such as safety of the environment.

The main factor that forces the companies to implement the eco-friendliness in the services and products is the willingness of the consumers to pay for the green products. It is also seen that the consumers of low economic status may avoid the environmental-friendly products.

It is important to identify the consumer's intentions and perceptions towards the acceptance of environmental-friendly products. The inclination of people towards buying the environmental friendly products has shifted the topic into a research. In the western countries, people prefer to buy

environmental friendly products more as compare to the Asian countries. This study aims to do a deeper research into the subject matter. It aims to study the willingness to pay for the environmental friendly products among different income areas.

1.1.Rationale

Climate change has become a great concern around the globe which have increased people interest in eco-friendly and green product use. Awareness regarding environment friendly products has become a great interest. Aware and knowledgeable people have depleted plastic bag use and products as much as they can. This study is conducted to see interest of people and their willingness to pay for green products through questionnaires.

1.2.Objectives

The objectives and aim of this study are
To observe awareness and knowledge level of people regarding environment protection

To observe people willingness towards green products and eco-friendly products use

2. Literature Review

2.1.Theory of Planned Behavior (TPB)

To explain the behavioral intentions, the theory of planned behavior is proved to be most influential. It has been used in past researches to study the environmental friendly consumption behavior. The theory hypothesizes that the behavior of the person is predicted by the factors such as subjective norms, attitudes etc. The favorable and unfavorable attitudes about the particular behavior are caused by the person's behavioral beliefs, personal moral norms. Because of the

consumer's lack of the knowledge about the environment have caused attitude-behavioral gap. This results in the insufficient intention towards the purchase of the green products.

2.2. Approach towards the

Environmentally Friendly Products

The attitude or approach shows the person's positive or negative assessment of the self-performance concerning the particular behaviour. In the context of the pro-environmentalism, it has been found out that the consumer's approach can have effect that is positive on the purchase of the green products. Ali *et al.*, 2012 examined the influence of the different factors on the purchase of the green products. The study was conducted in the Pakistani consumers. A conceptual model was used as well as a survey. The survey was done in Islamabad and Rawalpindi. The findings of the study showed that the people were inclined towards buying the green products. As far as the quality and price of the products are concerned, they should compete with the traditional products. This study also influenced the Pakistani government to invest more in the environmental programs.

Hypothesis 1 (H1) There is a positive attitude towards buying the Environmental-Friendly Products in Pakistan

2.3. Eco-Literacy

The eco-literacy is also known as ecological knowledge. It is explained as the person's ability to identify the ecological behavior, concepts and symbols. Knowledge has the hold on the decision making process, it can

either be a positive attitude or negative attitude towards a specific behavior.

Batool *et al.*, 2016 studied the effect of eco-literacy on the buying of the green products. The study was conducted in the Islamia University of Bahawalpur Pakistan. The results of the study depicted that the consumer buying behaviour is greatly influenced by the Eco-literacy and environmental concern. People who have proper knowledge about the issues of environment and are concerned about the environment are more inclined towards buying the green products.

Hypothesis 2 (H2) The Eco-Literacy shows a positive effect on the buying of green products

2.4. Willingness to Pay for Environmentally Friendly Products

This shows the person willingness or motivation to make a contribution in the betterment of the environment. The consumer's willingness to pay for the green products depicts that person is concerned about the environment and wants to produce less pollution. People with proper eco-literacy and environmental concern are more inclined toward the buying of green products.

Hussain *et al.*, 2014 studied the consumer's awareness. The study was aimed to examine the influence of the consumer's awareness and concern on the purchase of green products. Total of 300 responses were collected during the survey. The survey was done in the university campus of Multan, Pakistan. The participation in the survey was purely voluntary. The results depicted that the purchasing decision was highly influenced by the consumer's awareness of price. Person

who is highly concerned about the environment and is determined to save the environment showed the preference of buying the green products regardless of the price.

Hypothesis 3 (H3) Environmental concerned people have the positive effect on buying of the green products.

3. Methodology

3.1. Questionnaire Design

A questionnaire was designed, consisting of demographic questions including household income, members, number of members earning, level of education of respondent, knowledge of green products and several eco-friendly, willingness to pay questions.

3.2. Sampling Technique

Assessment of willingness to pay will be conducted through questionnaires. Three areas of Lahore will be targeted including Mozang,

DHA and Shadman. 300-400 questionnaires will be filled in this study. All age groups will be targeted, questionnaire mainly comprised of demographic, green products and willingness to pay for eco-friendly products related questions.

3.3. Analysis

After collecting response through questionnaires, data will be analyzed through SPSS-Software. it will be statistical analysis, results and discussion will be conducted on the basis of SPSS results. Anova test, T-test, Correlation and Regression test.

3.4. Study Area

The study will be conducted in Lahore, Targeted area will be DHA (high income), Shadman (medium income) and Mozang (low income).

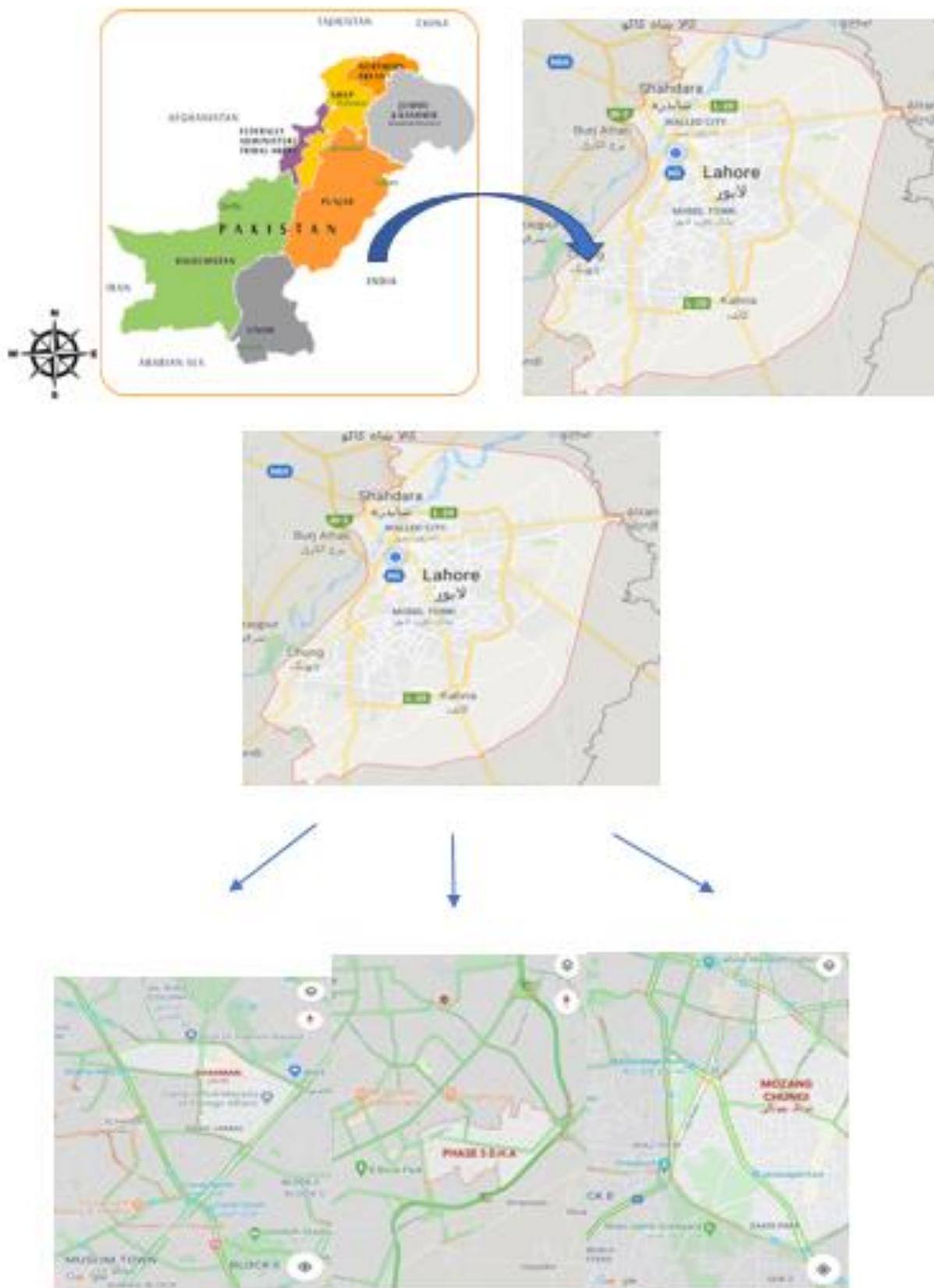
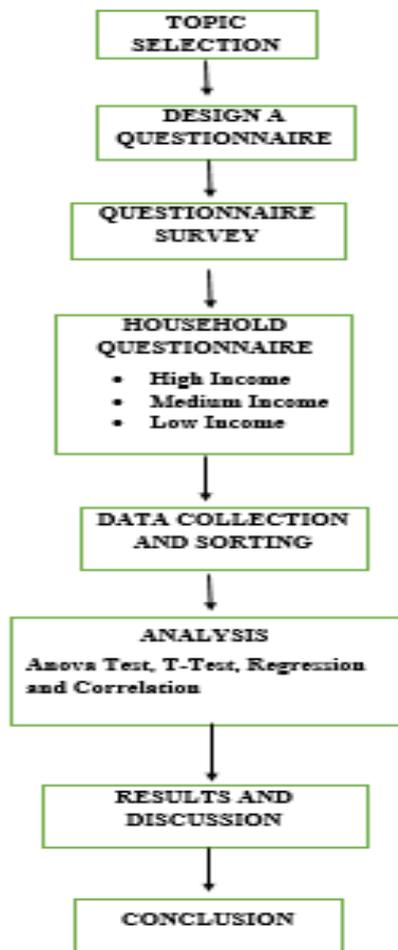


Figure.1 Location of Lahore

3.5. Flow Diagram of Methodology



4. Results

4.1. Demographic Characteristics

The responses were collected from 300 individuals. The data was collected from three different areas. 34.3% responses were collected from Shadman, 33% from the Mozang and 32.7% from the area DHA. 57.3% respondents were graduated, 33.7 were primary and 9.7% were post-graduated. 63.3% were female and 36.7% were male. 37.7% of the respondents have the income between the range of 50,000 – 100,000. 27% of the respondents have the income between the range of 100,000 – 200,000. 24% of the respondents earn between the range of 20,000

– 50,000. 8.7% of the respondents earn more than 200,000.

4.2. Reliability and Variability

The table 1 shows the summary of item statistics. It includes the values of mean, minimum, maximum, range, variance, and number of the items.

The table 2 shows the values of the mean and the standard deviation values of all the variables. The variables are Eco labels, substantial information, knowledge, packaging reduce waste, harmony with nature, care problems, eco-friendly etc.).

Table 1: Summary item statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	1.428	1.013	2.259	1.246	2.230	.211	14
Item Variances	.246	.013	1.383	1.370	105.480	.120	14
Inter-Item Covariances	.019	-.023	.191	.214	-8.243	.003	14
Inter-Item Correlations	.098	-.163	1.000	1.163	-6.147	.085	14

Table 2: Item Statistics

	Mean	Std. Deviation	N
ecolabels	1.9934	.11452	305
substantialInformation	2.2590	.61381	305
knowledge	2.2328	.50807	305
packaginReduceWaste	1.9246	.26449	305
harmonywithnature	1.0131	.16169	305
CareEproblems	1.0328	.17837	305
Efriendly	1.0426	.58051	305
PurchaseEFPfavourable	1.0557	.22979	305
payextra	1.2590	1.17616	305
EFappliances	1.2525	.43514	305
NoGreenProducts	1.2525	.43514	305
PayExtraEcoLabel	1.2557	.43699	305
reusablecontainers	1.2557	.43699	305
lowEnergy	1.1639	.37082	305

4.3. Factor Analysis

Table 3: Analysis case processing summary

Unweighted Cases		N	Percent
Valid		288	93.8
Excluded	Missing or out-of-range group codes	17	5.5
	At least one missing discriminating variable	0	.0
	Both missing or out-of-range group codes and at least one missing discriminating variable	2	.7
	Total	19	6.2
Total		307	100.0

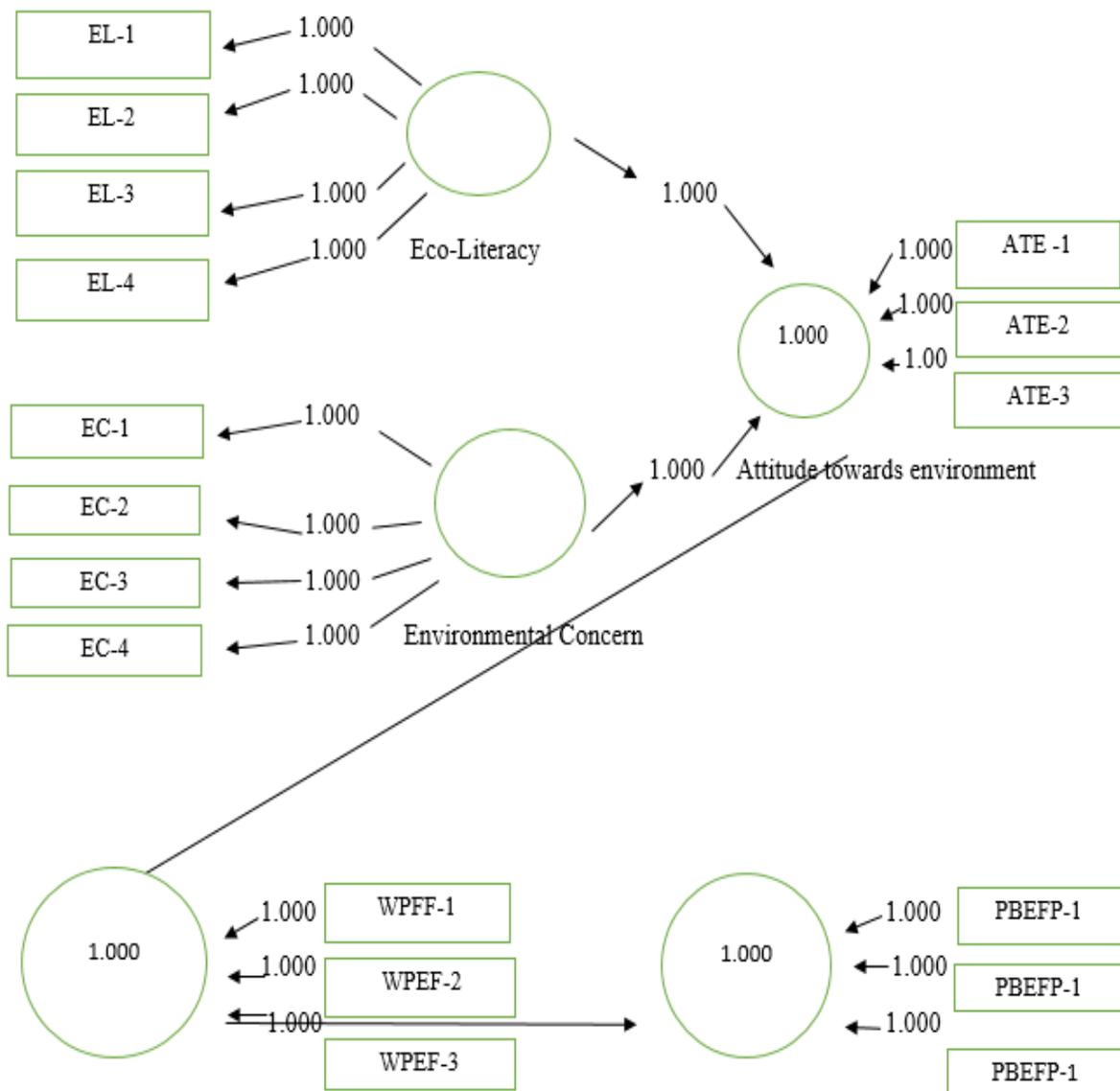
Table 4: Group Statistics

PurchaseEFPfavourable	Mean	Std. Deviation	Valid N (listwise)		
			Unweighted	Weighted	
yes	income	3.6319	.62186	288	288.000
Total	income	3.6319	.62186	288	288.000

4.4. Acceptance or Rejection of Hypothesis

Hypothesis	Acceptance or Rejection
There is a positive attitude towards buying the Environmental-Friendly Products in Pakistan.	82.3% of the respondents were willing to buy Environmental-Friendly products.
The Eco-Literacy shows a positive effect on the buying of green products.	62.7% of the respondents were willing to buy green products after proper Eco-Literacy.
The environmentally concerned people have the positive effect on the buying of the green products.	88.3% of people were concerned about environment and inclined towards buying green products.

4.5. Research Model and Analysis



5. Discussion

For the protection of environment, today's consumer should need to be aware of their critical role that is required to be played by them. Thus, in this study by using TBP framework all those factors have been established that might have impact on willingness to pay and payment behaviour for environmentally friendly products among varying income households of Lahore. It was observed through the findings of present study that there were significantly positive effects of environmental concern and eco literacy level among the respondents' attitude towards environmentally friendly products. Such findings can be supported with other studies (Ali *et al.*, 2012) that awareness and environmental knowledge do support the strongly attitude towards paying and payment behaviour for environmentally friendly products. Moreover, according to the findings, along with the high and middle level, respondents with low income were also observed to be willing of buying eco- friendly products but due to high in price rate of such products, they don't buy them. But if the prices of such products would have low prices, respondent of every income level would prefer to pay extra for eco-friendly products whenever they would replace their appliances. In addition to this, correlation of eco literacy and environmental concern was observed to be positive with willingness to pay for environmentally friendly products. So, according to hypothesis, finding of present study reflects the significantly indirect effect of attitude among the respondents towards

environmentally friendly products, normative beliefs, and perceived behavioural control on their payment behaviour for environmentally friendly products. Finally, the factors that are more supportive towards the payment behaviour for environmentally friendly products among varying income level households in Lahore are their perceived behavioural control and their willingness to pay for such products.

6. Conclusion

This study focuses on the development of the environmentally friendly products. The study investigated the influence of the consumer's attitude on the willingness to buy the environmentally friendly products among different income area in Lahore. The results of the statistical test depicted that the TPB model used in this study was suitable for studied group. The literature review of the study revealed that people from around the country are willing to buy the environmentally friendly products if they have proper eco-literacy. In the terms of practical implication, the results of this study emphasizes on manufacturing of the green products as the public is willing to buy the environmentally friendly product for the sake of saving the nature. Furthermore, the developmental organizations and government should implement programs and policies to increase the environmental awareness and knowledge among people of low-income household. This will help to promote the buying of green products among them as well. The relevant authorities should conduct campaigns to encourage the positive social norms. This will help to promote the green

consumerism. To make the people of low-income household inclined towards buying the eco-friendly products, adequate facilities and resources should be given such as subsidiaries. The green firms can use the results of this data to know the purchase intention among the consumers around the Lahore and can devise new strategies. Above all, the data can be used to develop products according to the needs of the consumers. From the local perspective, the results of the study can be guideline for the organizations to plan better and penetrate into the Pakistani market and encouraging the consumers to pay for the green products. Further researches should also be conducted to know the consumer behaviour towards buying the eco-friendly products and proper knowledge of the environment should be provided to promote the buying of green products.

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