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Will You Purchase Green Products? The Joint Mediating Impact of Environmental Concern and Environmental Responsibility on Consumers' Attitude and Purchase Intention

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Authors' contributions

This work was carried out in collaboration among all authors. Authors AA, MS and AA designed the study, wrote the literature and the first draft of the manuscript. Author GX carried out the analysis and reviewed the draft manuscript. All authors read and approved the final manuscript.

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ABSTRACT

Aims: This study attempts to test the revised model of Theory of Planned behavior to predict the factors and possible paths to encourage customers for green purchasing in the home appliance industry.
Study Design: All constructs were measured on five-point likert scales anchored by 1 (strongly disagree) and 5 (strongly agree). All measures for the constructs were borrowed from previous researches, which were carried out from green marketing and green products perspective due to their proved reliability and validity.
Methodology: The researchers distributed 350 questionnaires using survey methodology based on convenient sampling of the population of eight universities located in four cities of Pakistani. Consumers who had experience purchasing electronic products were the focus of this research. The researchers chose Haier Pakistan's electronics products, as Haier is offering eco-friendly home appliances products to customers. In order to collect the required information, this study

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utilized a survey approach with self-administered questionnaires, which were distributed in offices of male and female faculty members as in the -drop off and collect- technique.
Results: We investigated how a change in the consumers' environmental knowledge of green phenomena can help customers to align attitude with green purchase intention. The findings showed that green buying behavior was increased by effectively enhancing customers' knowledge of the benefits of green products, the availability of these products and their performance in comparison to conventional products.
Conclusion: The findings suggest that green buying behavior is increased in customers by effectively enhancing their knowledge of the benefits of green products, the availability of these products and their performance compared to conventional products. However, it is important to increase the customers' current level of environmental knowledge through an effective marketing campaign. In the future this could develop environmental concerns and environmental responsibility in the mind and hearts of potential targeted customers of green products. This will push customers to form a positive attitude towards green products and invoke green purchasing intentions.

Keywords: Green products; purchase intention; environmental knowledge; environmental concern; environmental responsibility; consumer attitude.

1. INTRODUCTION

During the last few decades, the changing environmental conditions around the globe in addition to the social, economic and political changes have pressured businesses to become "Green" [1-3]. As a result, many companies started offering green products by identifying them as opportunities to have a competitive advantage in the market place [4-7]. "*Green products are those that have less of an impact on the environment or are less detrimental to human health that traditional equivalents"*. Green products, also known as eco-products, environmentally friendly products or sustainable products, might typically be manufactured in a more energy-conservative way, be formed or partially formed from recycled components, or be supplied to the market with less packaging [8-11]. Green, eco-friendly or sustainable businesses can generally be defined as businesses that strive to reduce negative impacts on the environment, society, community or economy while maintaining a profit. Designing, manufacturing, marketing, distribution and selling of these products and services are called green marketing [12-16].

Environmentally responsible behavior is receiving increasing attention in academic literature [17-20,2] [21-24] which show consumers to be more environmentally conscious and socially responsible as they become aware of issues related to the fragile state of the environment [22-26]. In addition, opinion polls show that almost eighty three percent of individuals are concerned about the environment [27,28] reported that according to estimates, in 2008 green consumers worldwide had an annual buying power of US$500 billion. The UK Co-operative Bank's annual Ethical Consumerism Report for 2010 confirmed that expenditure on green products and services grew by 18% over the previous two years, in spite of the likely impact of the global financial crisis [29].

Although most of the previous research highlights the growing demand of green products [30], evidence from some researchers has shown the impact of environmental initiatives on consumer behavior is both contradictory and equivocal [31-33]. Consumers are not ready to prefer green products while making a purchase decision at the point of sale [34]. As a result, the original proportion of green brands in the real market place is far less [35,36] than projected demands by the consumer, as highlighted in the most of the research [1]. Similarly, some studies highlighted show that the share of eco-label food products is less than 5% of total sales in Europe [36,37]. In reality, the actual green market size has been questioned by some authors [38].

Nevertheless, to cohesively address global environmental issues, global and interdisciplinary efforts must be made. These efforts might include comprehending the main drivers as well as processes behind un-environmentally friendly behavior and predicting their development based on progress, such that we might change this pattern enough to minimize the severity of these issues. Despite national and international policy making, such as the technological development in this context, the contribution of individual behavior cannot be ignored or underestimated. Many of the mentioned environmental problems are caused by human behavior, [39,17,40] and

for that reason we can determine that influencing potential consumer behavior could reduce environmental impact [17,41]. It is of utmost importance to understand the behavior of humans in relation to environmental issues, assuming that shifting to alternative behaviors can make a relevant difference [18-20].

1.1 Background of the Problem

Haier set up a modernized industrial park at Raiwind Road Lahore Pakistan in June of 2002 after anticipating the potential of Pakistani market. Haier's production facility has the capacity to produce over 1 million pieces per annum. Haier Pakistan (PK) is at the forefront of the home appliances and consumer electronics market of Pakistan. As a result, Haier ranks 2nd in the domestic home appliances market of Pakistan and have the overall share of 17.5 %. Undoubtedly, the brand has an advantage over competitors, as its products are technologically advanced, more user friendly, and have competitive prices. In recent years, Haier PK has engaged itself in a more intensive, challenging competition on a greater scale with local and international brands like PEL, LG, Dawlance, Orient group and Samsung. In response, Haier planned to cut the market clutter by engaging green marketing strategy, i.e. offering more energy efficient and environmental friendly products to consumers. In fact, in a short span of time, Haier Pakistan took a new direction towards Eco Life, and as of now, all Haier products are energy efficient and environmental friendly.

Now the question is how Haier PK could maximize this move in its favor, to increase its market share, to cut the market clutter, to take benefits from its competitors and to enhance its goodwill among consumers and various stakeholders. Exploring and understanding the drivers of customer purchase intentions in a specific context such as the home appliance industry can help Haier PK build industry specific competitive barriers and generating green brand wealth. The research uses these questions to define the problem and create hypotheses. This is based on the fact that the majority of existing research will not likely support anything or hold any value when applied to Pakistani market consumer behaviors. There is one thing common to most research on the subject: there is a lack of knowledge and awareness among the consumers of developing countries about green products, its benefits to them and the environment of their countries.

Therefore, the current study tests the ability of a revised theory of planned behavior [42] model to account for consumer positive attitude and purchase intentions of green products in developing countries. Consumer positive attitude is seen as the proximal determinant of consumer intention: the more one has positive attitude about a green product, the more likely one is to buy it. In light of this, to form consumers' attitudes, current research focuses on the enhancement of consumers' environmental knowledge to reduce the gap between projected and real sales of green products in developing countries. However, the researchers propose here that the mentioned gap cannot be overcome until or unless a real state of environmental concern and environmental responsibility is induced in the mind of potential consumers. Therefore, it is important to identify consumers' current level of environmental knowledge, so that in the future these potential consumers can be targeted through an effective marketing campaign, relaying factors of environmental concern and environmental responsibility in order to form positive attitude towards green products.

2. LITERATURE REVIEW

2.1 Relationship of Environmental Knowledge and Environmental Concern

Chan, [43] defined environmental knowledge as the state of one's knowledge about environmental issue. The marketing researchers treated the environmental knowledge variable as a factor that influences every phase of the buying decision process. The importance of knowledge has been demonstrated in numerous studies [44,9,45,46] as it affects the way in which consumers gather and organize information and determines how they evaluate products and services. Stern [47] argued that when a person who is more devotedly involved in issues related to the environment was compared to a less devotedly involved person, the sole aspect that differentiated the two was knowledge of environmental problems and how to act to most effectively deal with it.

Similarly, a significant part of environmentally conscious consumer behavior is to increase environmental knowledge in addition to knowledge of sustainable products [48,49]. If

people become more knowledgeable about the sustainability issue, then they will promote the wise use of natural resources and act towards the environment more responsibly [50].

According to Day and Monroe [51] several research studies recommended environmental education as a tool helps individuals to understand and solve current ecological problems. To strengthen this argument, Sia Su [52] argued that Filipino college students consider it more of a priority to protect the environment than the economic development of their country. They mentioned that it is possible to have a green environment with a strong economy, but the Filipino general public should show their concerns about the real and significant environmental issues the country faces. So, the researchers proposed the following hypothesis:

Hypothesis# 1. Consumers' Environmental Knowledge positively influences the Consumers' Environmental Concern.

2.2 Relationship of Environmental Knowledge and Environmental Responsibility

In fact, the topic of green product and green business is studied rigorously in the "Euro-American" context, [53-56] but relatively little focuses on Asia. Chapple and Moon [53] argued that consumers' awareness and purchase behavior related to social responsibility or ethical behavior are barely discussed in Asia, assuming that it is a Western phenomenon; however, environmental awareness in developed as well as developing nations is on the rise.

In short, modern ecosystem concerns have challenged the world to utilize natural and environmental resources for accelerating industry with a "green" engine. Now, consumers have become more socially and environmentally responsible, which leads to socially responsible consumption, for instance: sorting waste or recycling, saving energy and buying eco-labeled products [57,58]. Consumers who are more aware of environmental issues will have a preference for green products, green services and green businesses. Greater awareness led consumers to develop positive intentions to buy green products/ services and to participate in greening the earth [59]. Similarly, Paco and Raposo [60] reported the same findings that consumers who have an increased level of environmental awareness feel that they have a responsibility to purchase green products and services. So, researchers offer the following hypothesis:

Hypothesis# 2. Environmental Knowledge positively influences the Consumers' Environmental Responsibility.

2.3 Relationship of Environmental knowledge and Consumers Attitude

Bradley's [61] research that examined the vehicles of ownership and found a positive relationship between environmental knowledge and environmental attitude. This means that with the spread of consumers' knowledge and awareness about environmental issues, it is rational to suppose consumers are ready to purchase green automobiles. Additionally, several researchers mentioned that environmentally concerned consumers are more willing to purchase green products than those who are less concerned [62-65].

A study by Paco and Raposo [60] in Portugal showed that consumers who understand environmental challenges support policies to improve the environment even though their concerns do not transform into action. The reason for the non-reflection of environmental concerns in purchasing behavior in newly industrialized countries is a lack of awareness of greening concepts [66]. Contrarily, Fraj, and Martinez [67] argued that though people have enough knowledge and are very much concerned about environmental problems, they are still less involved in terms of their shopping habits and daily customs. However, through an educational program, marketers and government agencies can increase peoples' awareness of environmental problems, and possible solutions to these problems, i.e. publicize and use available alternatives, sharing benefits of green products. Increased awareness of any problem can change people attitudes, behaviors and finally their purchase decisions [68,69,64,65].

With this in mind, the role of the teachers is very important for spreading awareness among students about environmental concerns because often teachers are role models for their students. There is a need that teachers provide sufficient knowledge and share their experiences so that students can develop a positive attitude, adopt a suitable spending behavior and way of life [70]. Therefore, the researchers offer the following hypothesis:

Hypothesis# 3. Environmental Knowledge positively influences the Consumers' Attitude towards the green products.

2.4 Relationship of Environmental Concern and Consumers Attitude

According to various researchers, consumer's purchasing decision-making in general depends on his/her attitude about environment [65]. In fact, consumers are increasingly concerned about environment related issues and hold themselves responsible for the current environmental conditions, and therefore want to purchase products and services that have less impact on the natural environment [71-73] mentioned in a research study that people with high environmental concerns show more positive attitudes towards the environment than people who think themselves powerless to help the environment and are less likely to participate in pro-environmental activities.

This above argument is further substantiated by the study of Kim and Choi [63], where environmental concern has a direct and positive influence on the customers' purchasing intention of green products. This suggests that customers with strong environmental concern may be interested in consumption of products that reflect that concern. In one research study, Mostafa [74] highlighted the importance of environmental concern along with other variables for the prediction of consumers' green purchase behavior. He added that on the basis of environmental concerns one can differentiate between green consumers and non-consumers.

According to Tang et al. [75], a wealth of literature shows that there is a troublesome gap between what consumers says they will do and how they actually behave. Most of the consumers say that they choose a product because of its environmentally friendly nature, but they do not make actual allocations of dollars in purchases. There are also a number of research studies showing that while environmental problems, and consequently environmental concern, has hit the public agenda, behavioral changes have not-or not to the same extent [76-78]. In short, the researchers offer the following hypotheses:

Hypothesis# 4. Environmental Concern positively influences the Consumers' Attitude towards the green products.

Hypothesis# 5. Environmental Concern mediates the relationship between Environmental Knowledge and Consumers' Attitude towards the green products.

2.5 Relationship of Environmental Responsibility and Consumers Attitude

Due to the deterioration of the environment, many middle class consumers from the west and also developing countries have expressed their concern about environmental issues [79,80,67] [81-83]. In a positive light, many consumers buy green products, not only because it is a better choice, but also because it helps sustain the environment for the upcoming generation. In addition, many consumers are ready to stop buying products from companies for ecological reasons [67].

Previous research has also shown that consumers would purchase products and services, which protects the natural environment. These studies mentioned that consumers who have feelings of responsibility for environmental issues will purchase green products, and, in reality, they are even ready to give more in favor of green products [84,85] also argued that consumers who have feelings of responsibility for environmental issues have a tendency to have environmentally friendly behavior. On the other hand, peoples' health, both on the individual and the community level, has been affected by environmental problems [86]. More importantly, the dreadful current environmental conditions are ever more threatening consumer health and well being globally. Therefore, consumers are becoming more sensitive in their environmental attitudes, preferences, and purchases [87]. The researchers thus offer the following hypotheses:

Hypothesis# 6. Environmental responsibility element positively influences the Consumers Attitude towards the green products.

Hypothesis# 7. Environmental Responsibility element mediates the relationship between Environmental Knowledge and Consumers' Attitude towards the green products.

2.6 Relationship of Consumers Attitude and Green Purchase Intention

In the green section of consumer psychology, research efforts have been made to explicate the

gap between consumers' reported attitudes and their actual buying behavior. In this regard, they often used Ajzen's 'Theory of Planned Behavior' [42]. The TPB has been successfully applied to a wide range of studies focusing on green marketing, consumers' green purchase intentions, as well as consumers environmentally friendly behavior [79-80,18] [81-83,17].

This theory described intentions towards an act to be determined by attitudes, perceived control and subjective norms. Intention, in turn, may lead to actual behavior. Psychologists have examined values, beliefs, motivation and attitudes in order to comprehend this inconsistency and why some people engage in environmentally friendly behavior, while others do not [88-90]. However, there are many factors that interfere with this process with impact on whether or not the ecologically conscious attitude will result in actual behavior, which is the purchasing of green products. The researchers in this paper used a modified version of TPB, as [91] suggested the TPB is open to expansion- if further predictors can be identified.

In marketing literature, purchase intention is a pivotal concept. To forecast the adaptation of new products as well as repeat purchases of existing ones, most companies used consumers purchase intentions. As previously mentioned, environmentally concerned people who believe pollution to be a problem and also have a favorable attitude towards greening environment are more inclined to purchase green products [80]. Even prior studies show that consumers with the intentions of buying a product exhibit higher actual buying rates than customers who demonstrate no intention of buying [92]. Hence, as people become aware of environmental problems, their attitudes and purchase intentions may in turn change [62,64,65]. Therefore, the researchers offer the following hypothesis:

Hypothesis# 8. Consumers' attitude towards the environment positively influences their Green purchase intentions.

2.7 Conceptual Model

Fig. 1 shows conceptual model of the relationships between Environmental Knowledge, Environmental Concern, Environmental responsibility, Consumers' Attitude and Purchase Intentions.

3. METHODOLOGY

3.1 Sampling Method and Procedure

The researchers distributed 350 questionnaires using a survey methodology based on convenient sampling of the population of eight universities located in Rawalpindi, Islamabad, Taxila and Wah. Consumers who had experience purchasing electronic products such as refrigerators, freezers, dishwashers, TVs, air conditioners, washing machines, microwave ovens, etc. were the focus of this research. The researchers chose Haier Pakistan's electronics products, as Haier is offering eco-friendly home appliance products to customers.

In order to collect the required information, this study utilized a survey approach with self-administered questionnaires, which were distributed in offices of male and female faculty members as in the -drop off and collect- technique. International Islamic University Islamabad, Muhammad Ali Jinnah University, FAST National University Islamabad, Ripha University, Preston University Islamabad, Quaid-e-Azam University, COMSATS University Wah, University of Engineering and Technology, Taxila have been selected from four cities.

The researchers also included a screening question in the survey instrument for the respondents to ensure they have knowledge about green products. The researchers also placed a precise concept of green products for those who did have the required knowledge. The respondents were asked for information about their environmental knowledge, environmental concerns, environmental responsibility, attitude about the environment and green purchase intentions. In addition, potential respondents were requested to provide demographic information. For a period of over 40 days, three hundred and thirteen filled and usable questionnaires were collected and included in the actual data analysis.

3.2 Measures

All constructs were measured on five-point likert scales anchored by 1 (strongly disagree) and 5 (strongly agree). All measures for the constructs were borrowed from previous researches, which were carried out from green marketing and green products perspective due to their proved reliability and validity. Five scales items for environmental knowledge were adapted from Ali

& Ahmad [79] and [93]. Our twelve items of concern for the environmental scale was adapted from those used by Abdul-Muhmin [94] and Ali & Ahmad [79]. To measure the environmental responsibility, seven items were adapted from the study of Lee [95]. Purchase attitude was measured using a three-item scale by Ali et al. [80] and Taylor & Todd [96]. Finally, our three-item consumers' purchase intention was adapted from Ali & Ahmad [79], Ali et al. [80], I [97] and Taylor & Todd [94]. Coefficient α is used to assess the reliability of each scale [98] which was found in acceptable range, i.e. greater than 0.7 for each construct.

3.3 Characteristics of Sample

Table 1 indicates the demographics of final sample after treatment of missing values and outliers of the study.

Table 1 indicates the sample demographics. Our sample had a considerable gender skew towards males (73.5%). In terms of age, almost seventy percent of respondents were aged in two categories i.e. between 36 to 40 years old (39.6) and 41 to 45 years old (30.4). The majority of the sample (50.5%) had done MS/M. Phil degree followed by the respondents with Ph.D. degrees (36.1).

The researchers used confirmatory factor analysis (CFA) to establish the reliability of scale used in this study. CFA has been widely used by past researchers [99-102] and is the most appropriate technique when establishing the reliability of a measurement scale. Based on CFA results, the reliability of all five constructs was established using Cronbach's alpha, construct reliability (CR) and average variance extracted (AVE). For all construct, the cronbach's alpha coefficient values were above 0.90, demonstrating strong internal consistency of the scale. Similarly, the resulted values for C.R. as well as AVE were above the minimum threshold of 0.6 and 0.5 respectively indicating the reliability of all construct of the model. Table 2 summarizes the reliability results for each construct.

3.4 Data Analysis

Indicated in Table 3 are regression analysis, means, standard deviations and Pearson correlation analysis of each research variable.

Before assessing meditational hypotheses, the researches followed the conventional procedure testing the model without mediators just for correlation matrix and regression analysis. The fit measures for the structural model were acceptable with R^2= 33.0 % and Adjusted R^2 32.0 % (F= 33.859, P-value< .000). In Table 3 regression analysis described the variation in dependent variable with respect to independent variables separately.

Table 1. Demographics of Final Sample

	Frequency	Percentages
Gender		
Male	230	73.5
Female	83	26.5
Age		
less than 36	62	19.8
36 to 40	124	39.6
41 to 45	95	30.4
46 and above	32	10.2
Education		
Master	34	10.8
MS/M. Phil	158	50.5
Ph.D.	113	36.1
Post Ph.D.	8	2.6

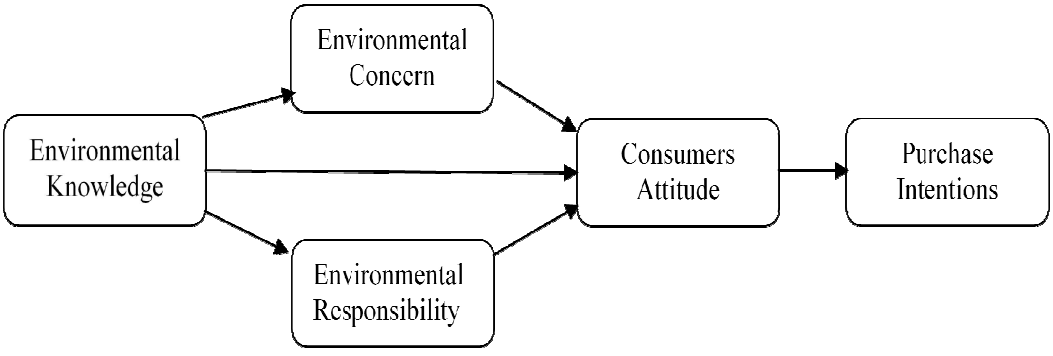

Fig. 1. Attitude and Purchase Place this diagram under the heading of Conceptual Model

The paths from environmental knowledge to concern for the environment (B= 0.33, t> 3.77, P-value< 0.01), environmental responsibility (B= 0.31, t> 3.51, P-value< 0.00) and consumers attitude towards the environment (B= 0.29, t> 3.30, P-value< 0.03) were strong and significant, thus supporting hypotheses H1, H2 and H3. Similarly, the paths from environmental concern (B= 0.32, t> 3.50, P-value< 0.02) and environmental responsibility (B= 0.33, t> 4.21, P-value< 0.00) to consumers attitude for the environment were strong and significant, thus supporting hypotheses H4 and H6. Finally, the path from consumers attitude for the environment (B= 0.30, t> 3.59, P-value< 0.00) to consumers' green purchase intention was strong and significant, thus supporting hypothesis H8. Results in Table 4 indicate that full mediation took place when consumers' attitude (dependent variable) was regressed by both environmental knowledge (independent variable) and environmental concern (mediating variable). In step 04, the impact of environmental knowledge became insignificant (t= 1.87, p> .05) while environmental concern significantly impact the consumers' attitude (t= 3.03, p < .05), thus supporting hypothesis H5. Similarly, results in Table 4 indicate that partial mediation took place when consumers' attitude (dependent variable) was regressed by both environmental knowledge (independent variable) and environmental responsibility (mediator). In step- 04, the impact of environmental knowledge became significant (t= 2.17, p< .05) but less than it was in step 03 while environmental responsibility also significantly impact the consumers' attitude (t= 3.21, p < .05), thus supporting hypothesis H7.

Table 2. Reliability results

Constructs	Cronbach's alphas	C.R	AVE
Environmental knowledge (E.K)	0.95	0.97	0.79
Environmental concern (E.C)	0.94	0.94	0.96
Environmental responsibility (E.R)	0.96	0.85	0.97
Consumers attitude (C.A)	0.97	0.98	0.94
Purchase intentions (P.I)	0.95	0.96	0.97

Table 3. Regression analysis, means, standard deviations and pearson correlation analysis

H#	(β)	t-value	Sig.	Constructs	Mean	SD	1	2	3	4
H: 1	0.33	3.77	0.01	E.K	3.31	0.93				
H: 2	0.31	3.51	0.00	E.C	3.45	0.72	.30**			
H: 3	0.29	3.30	0.03	E.R	3.60	0.81	.33**	.31**		
H: 4	0.32	3.50	0.02	C.A	3.34	1.07	.23**	.35*	.34**	
H: 6	0.33	4.21	0.00	P.I	3.49	0.92	.29**	.25*	.32**	.27**
H: 8	0.30	3.59	0.00							

Notes: n=313, Arrow indicates the direction of impact

Table 4. Mediation effect

Mediating role of Environmental Concern				Mediating role of Environmental Responsibility		
Steps	**B**	**t-value**	**p-value**	**B**	**t-value**	**p-value**
Step 01	0.33	3.77	0.01	0.31	3.51	0.00
Step 02	0.32	3.50	0.02	0.33	4.21	0.00
Step 03	0.29	3.30	0.03	0.29	3.30	0.03
Step 04	0.19	1.87	0.21	0.21	2.17	0.02
	0.23	3.03	0.25	0.25	3.21	0.01

Notes: n =313, Change in R^2 (at step 04)=.10, F = 30.731 (P<.05)
Notes: n=313,Change in R^2 (at step 04) = .04, F = 22.02 (P<.05)

4. CONCLUSION AND POLICY IMPLICATIONS

This study attempts to test the revised model of Theory of Planned behavior to predict the factors and possible paths to encourage customers for green purchasing in the home appliance industry. We investigated how a change in the consumers' environmental knowledge of green phenomena can help customers to align attitude with green purchase intention. The findings showed that green buying behavior was increased by effectively enhancing customers' knowledge of the benefits of green products, the availability of these products and their performance in comparison to conventional products [79,103]. However, it is important to increase the customers' current level of environmental knowledge through an effective marketing campaign as in the future this will likely develop environmental concerns and environmental responsibility in the mind and hearts of potential targeted customers of green products. This will push customers to form positive attitudes towards green products and finally help them to develop a green purchase intention.

Additionally, this might be only possible when customers are more conscious and responsible for environmental issues, otherwise the gap between projected and real sales of green products cannot be overcome. There is a need to change the customers' behavior in a way that they must think of the efficacy of a product rather than focusing on a new product. The previously mentioned gap cannot be overcome until or unless a real state of environmental concern and environmental responsibility is induced in the mind of potential customers. It is of utmost importance as there is a general perception among the researchers that there is a lack of knowledge and awareness about the greening concept among the customers of developing countries, and this fact applies to Pakistani customers too.

Specifically, this paper was in the context of Haier PK's move to become the first green company in home appliance industry. The researchers found that Haier PK can break the market clutter and can take a market lead on its competitors by devising a comprehensive strategy, as most of the respondents were willing to buy green products to contribute their share to save the natural environment. For this purpose, Haier PK may launch a comprehensive but specific advertising campaign through print, electronic and social media to propagate the benefits of this move to potential customers as well as the natural environment. Finally, this will help customers form positive attitudes and intentions towards green products and businesses.

Although, the green technology is very costly and it might not be possible for many other organizations like Haier Pakistan to achieve immediate success in new markets, in the long run, if these organizations invest in green products, the acceptance of green products might be enhanced by delivering the extra customer defined value at higher price to justify their extra expenditure [104]. Therefore, it is suggested that present as well as potential local and international businesses, that are willing to start businesses in Pakistan, to start positioning themselves as green businesses to take the advantage of green phenomena. Finally, in the long run Haier PK can become a role model for its competitors and new comers, even in the diversified product categories, if it will take a lead in the market and will satisfy customers with the performance of environmental friendly products.

5. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This study has some limitations in terms of scale variables, sample size, targeted respondents and geographical coverage. Firstly, it should be noted that emphasis of current research was to measure and explain the variables that might influence the consumers' attitudes and ultimately their green purchase intentions. Intentions are only considered an aspect of actual behavior, and therefore results might be different when customers are provided an opportunity to make a decision in real world. To overcome this gap, longitudinal studies might be helpful to observe the original behaviors of customers.

Secondly, the sampling frame for this study was limited to 313 faculty members in four cities of Pakistan. Therefore, results of current study might not be generalizable to other cities and must be used with caution. In considering this limitation, it is recommended that future research utilizes a broader geographical and demographic profile with a large sample size to analyze respondents.

Moreover, a larger sample size collected from all the major cities of four provinces would be more

representative of Pakistani home appliance customers.

Similarly, researchers chose faculty members of universities as a sample size, and it is a common perception in Pakistan that universities pay a handsome salary compared to people in other professions. As a result, we suggest that faculty members belong to the middle class or upper middle class in Pakistani society. Thus, future researchers should get the sample representations from other professions, income groups and social classes together to cover more potential green customers and find more comprehensive results.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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