Green Purchase Behavior and Social Practices Approach

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Abstract

Green purchase behavior (GPB) is not constant and vary in different contexts. This study aims to analyze the mediation impact of green advertisement (GA) on the relationship between the environmental concern (EC), social influence (SIN), self image (SIM), and GPB. 458 responses considered to apply structural equation model test and mediation analysis to evaluate the framework model of the study. The study employed the social practices approach to integrate GPB. The study concludes that the government, marketers and educators can increase the awareness of environmental deterioration and enhance the green purchase behavior by EC, SIN, and SIM with the presence of GA. Government can also further initiates the green policies and strategies. The findings further posit that EC, SIN, and SIM, with the presence of GA, can increase the GPB, and people become greener and environment conscious in their routine life. In the end, future directions and limitations discussed.

Keywords: g*reen purchase behavior, environmental concern, social influence, self image, green advertising, the social practices approach*

1. INTRODUCTION

1.1. Background of the study

Global environmental problems like acid rain, pollution, global warming and dwindling natural resources become a threat to the human lives. Today, people start worrying about environmental issues and organizations have start working in more environmental responsible manner. Kilbourne & Pickett (2008) explained that environmental concern and self-image changing the people intention towards green purchasing. Several studies targeted the green purchase intention with: green corporate perception (D'Souza et al. 2006; Kuchinka et al., 2018), environmental advertisements (Chan, 2004; Chen, & Lee, 2015), green labeling (Pekkanen et al. 2018; Suki, 2016), environmental value (Mostafa, 2007; Teng et al., 2018). It is evident that, however, in past studies, there is no such evidence found that how advertising mediated the customers buying behavior. Therefore, it is important to investigate the impact of environmental advertisement green purchase behavior to address this issue.

On the basis of previously discussed literature, we posited that there is scarce of study on environmental knowledge, which predicts green purchase behavior (GPB), additionally, with the presence of mediating effect on the GPB. In broad sense, the purpose of current studies is to investigate the relationship between environmental concern (EC), social influence (SIN),

self-image (SIM) and mediating effect of green advertising (GA) on GPB. This study is vital to fulfill the literature gap about the mediation variable, to which extend advertisement influence the green purchase behavior. In this study we prepare the conceptual model to explore the impact of GA as mediator between EC, SIN, SIM and GPB (refer fig 1).

This study provides the insight to marketers that how they can develop more effective strategies with the integration of green advertisement. Moreover, it delivers the knowledge to policy makers and businesses that how to attract customers by creating awareness about environmental problems and pollution issues. This study also emphasized on altering the existing strategies adopted by businesses, by providing the importance of advertising. In last, present study helps marketers to build better positioning of green products in the consumers mind by promoting green products using advertisements, and tweak their old purchase behavior, which could help buy more eco-friendly products. This study also contributes in the social practices approach by gauging purchase behavior in the presence of EC, SIN, SIM and GA.

1.2. Underpinning theory

The foundation of current study was laid on the social practices approach proposed by Spaargaren (1997). This theory developed on the basis of everyday activities of the individual and group. According to Spaargaren &Van Vliet (2000) this theory conceived as being routine-driven, everyday activities situated in time and space and shared by groups of people as part of their everyday life. Verbeek & Mommaas (2008) employed the theory to analyze the potential roles of citizen-consumers in transition processes towards sustainable tourism mobility. Shove &Walker (2010) used the social practices approach to consider how variously sustainable practices come into existence, how they disappear and how interventions of different forms may be implicated in human need or societal functions. In our study, this theory integrated with purchase behavior of individual with other dimensions i.e. EC, SIN, SIM and GA. This study provides the insights how individual behave in routine life while considering the environmental distress, surrounding people effect, thinking about themselves, and the environment friendly advertising.

1.3. Environmental concern and green purchase behavior

If individual care about environment, there are more possibilities that (s)he would buy green products. Goh & Balaji (2016) posited that role of knowledge determines the customers' attitude and intentions towards organic products and pro-environmental behaviors. Suki (2016) found that environmental knowledge and concern significantly impacted the customers' ecological behaviors i.e. purchasing organic food. Newton et al. (2015) added that environmental concerns motivate customers to learn about the outcomes of the environmental purchases. Pagiaslis & Krontalis (2014) confirmed that environmental concern has both direct and indirect effects through knowledge and belief towards the willingness to pay and use biofuels. Albayrak et al. (2012) investigated the influence of environmental consequences and skepticism on green purchase behavior by utilizing the theory of planned behavior. Thogersen & Noblet (2012) posited green behavior concern gives a significant contribution to predict acceptance of wind power products, when controlling environmental consequences. Lee et al. (2014) illustrated the significant positive impact of environment concern on green purchase behavior.

1.4. Social influence and green purchase behavior

It is in human nature that its behavior change by listening or observing others. Joshi and Rahman (2015) hinted the linkage between social influence and green purchase behavior. Kanchanapibul et. al. (2014) argued that e decision-making involved in purchasing green products can be disrupted by deeply ingrained social perceptions. Biswas and Roy (2015) have found a strong influence of social groups and want of social recognition on the consumption behavior of the consumer segment exhibiting a preferential approach for products with green credential. Wang (2014) suggested that if more people are involved in environmental activities, the environmental visibility of these issues will increase, thereby improving other people's environmental responsiveness and ultimately enhancing their green purchase intentions. Khan and Mohsin (2017) revealed that social influence has a significant and positive impact on consumer choice behavior. Nguyen et al. (2017) considered social influence as one the most important driver of green purchase behavior.

1.5. Self-image and green purchase behavior

Human being always think about themselves that what and how they doing, and what other thinking about me. Consumer preference for product attributes is driven by consumers' individual and egoistic values such as health and safety concerns, and hedonistic values of enjoyment and pleasure in using a product (Cerjak et al., 2010). In the perspective of self-image with green purchase behavior, Binder & Blankenberg (2017) exemplified that green self-image increases the extent and intensity of green behavior. Dagher & Itani (2014) concluded that concern for self-image in environmental protection has significant impact on green buying behavior. Lasuin & Ching (2014) investigated self-image with green purchase intention and they found the positive significant impact of self-image and green purchase intention. . Green purchase behavior exhibits life style of people and gives them a distinct position in society (Park & Ha, 2012). Chen & Wong (2012) found that variety seeking and self-indulgence (dimensions of consumer lifestyle) influenced purchase of organic food products. de Medeiros & Ribeiro (2017) proved that customer buy green product because of their self-image.

1.6. Green advertising link with environmental concern, social influence, self-image, and green purchase behavior

Advertising influence the human psychology and nature, which ultimately influence the human attitude and behavior. Banerjee et al. (1995) suggested that green advertising increases the environmental concern in individual. Barrios et al (2017) also proved the positive link between green advertising and environmental concern. Chang (2012) explained the relationship between social influence and green advertising. Birau & Faure (2018) also provided the possible linkage between green advertising and social influence. Dagher & Itani (2014) initiated the positive connection between self-image and green advertising. Mo et al. (2018) hinted the association of green advertising and self-image. Shrum et al. (1995) proved the affiliation of green advertising with green purchase behavior. Wei et al. (2017) also provided the evidence of positive tie between green advertising and green purchase behavior.

2. RESEARCH METHODOLOGY

2.1. Research Design

Quantitative research approach is used to examine the relationships between variables. The population of this research was those people who purchase green products. The 502 responses considered for further data analysis. The 111 responses rejected on the basis of incompletion questionnaire or double responses in single question. The measurement of constructs were ensured to be reliable and valid by adopting the items from standardized scales. Additionally, the scales were pilot tested with industry and subject experts (refer to table 1). All items were reflective and rated on 5 point Likert scale (1 represents, strongly disagree, 5 represents, strongly agree). The ADANCO 2.0.1 software used to perform analysis.

Table 1: Details of constructs

Construct	**Source**
Environmental concern (EC)	Bamberg (2003)
Social influence (SIN)	Bonefield (1974); Wang (2014)
Self image (SIM)	Kressmann et al. (2006)
Green advertising (GA)	Rahbar & Wahid, (2011)
Green purchase behavior (GPB)	Chan (2001)

After adoption of items, the content validity check by industrial expert to make sure that elements of an instrument evaluation and related to the targeted construct (i.e. Haynes et al., 1995). All ethical consideration were addressed in data collection, data analysis and writing results (Bell & Baryan, 2007). The non-response bias test run on first 25 responses and last 25 responses (Armstrong & Overton, 1977). Results show no non-response bias in the responses.

3. ANALYSES AND RESULTS

3.1. Demographic profile

Table 2 shows the respondent's profile. The reliability of all the constructs was under the threshold level (refer to table 3).

Table 2: Respondents' profile

Category	Type	Frequency	%
Gender	Male	396	78.88
	Female	106	21.16
Age	18-25	106	21.16
	25-35	157	31.27
	35-45	101	20.12
	45-55	98	19.52
	55 and above	40	7.97
Education	Under 10 grade	26	5.20
	Grade 11 & 12	179	35.66
	Bachelors	245	48.80
	Masters and above	52	10.36

3.2. Simple and mediation analysis

Next, a structural equation modeltest was performed, with random imputation = 446,501,664, boot strapping (seed = -220806924), and assess model fit calculations on the 25 items to find the significance of relationship between the independent and dependent constructs (refer fig. 1).Variance-based structural equation modeling or PLS is a structural equation modeling (SEM) technique similar to covariance-based SEM as implemented in LISREL (Joreskog, 1978), EQS (Bentler, 1985), or AMOS (Arbuckle, 1995).The table 4 shows theresults of the model fitness.

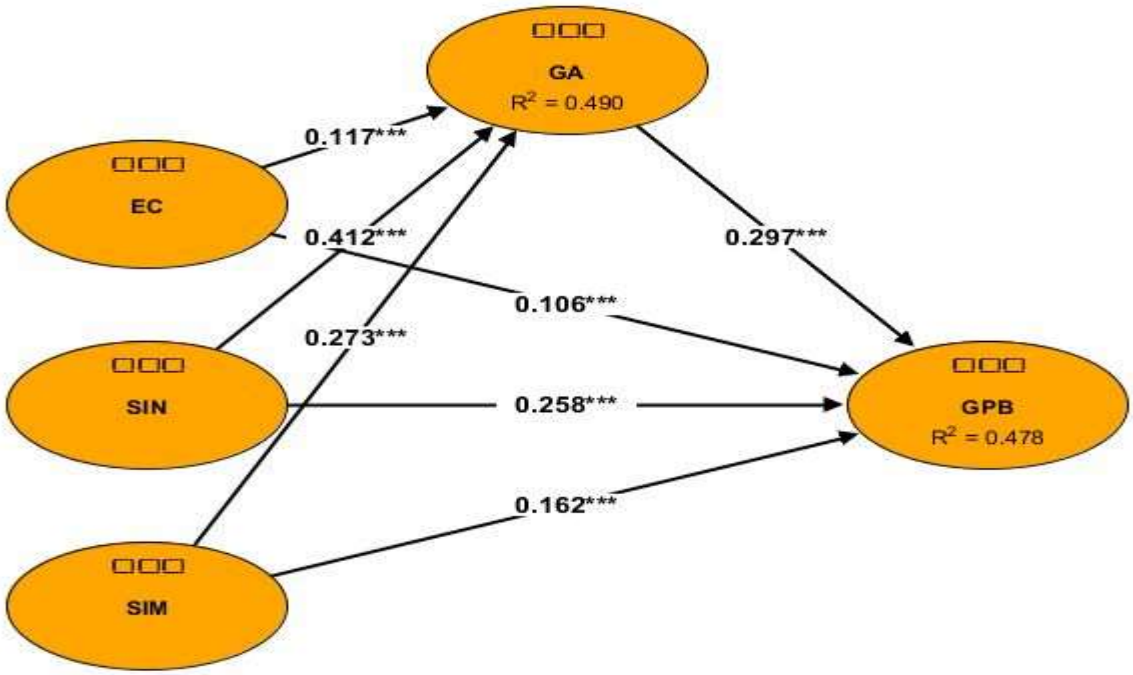

Fig 1: Conceptual model and results

3.3. Findings

3.3.1. PLS measurement model results

To find the suitability of the model, first we evaluated the convergent and discriminant validity (Gefen et al., 2000) and reliability (Fornell, 1982) of the constructs. The Table 3 shows the convergent validity (AVE), discriminant validity (HTMT), and reliability (Jöreskog's rho). The values of given tests evaluated by checking the average variance extracted (AVE) (threshold value = > 0.50), Heterotrait-Monotrait Ratio of Correlation (HTMT) (threshold value = <0.85), and Jöreskog's rho (threshold value = > 0.70). All value were significantly under the threshold level and appropriate for further analysis (Dijkstra & Henseler, 2015: Henseleret al., 2016).

Table 3: Validity and reliability results

Variable	AVE	HTMT	Jöreskog's rho (ρc)
Environmental concern (EC)	0.9347	< 0.85	0.9855
Social influence (SIN)	0.6205	< 0.85	0.9073
Self image (SIM)	0.6623	< 0.85	0.907
Green advertising (GA)	0.704	< 0.85	0.9047
Green purchase behavior (GPB)	0.8045	< 0.85	0.9815

3.3.2. PLS structured model results

Before final analyses, we conduct the the correlation analysis to ensure that all relationships having significant and appropriate relationship. Table 4 depicts the significant correlation relationship between all constructs. All figures are significant and appropriate for further analysis. We next examined the overall explanatory power of the structural model of the study.

Table 4: Correlation results

Variable	EC	SIN	SIM	GA	GPB
Environmental concern (EC)	1	0.476	0.417	0.741	0.486
Social influence (SIN)		1	0.459	0.587	0.558
Self image (SIM)			1	0.385	0.243
Green advertising (GA)				1	0.278
Green purchase behavior (GPB)					1

**all results were significant = p < .05*

We use standardized root mean square residual (SRMR), which is a measure of goodness of fit evaluates the discrepancy between the empirical correlation matrix and the model-implied correlation matrix (Henseler et al., 2015). The table 5 illustrates SRMR (threshold value = < 0.08) and structural model evaluation analysis (adjusted R^2, path coefficients, and t-value) (Hu & Bentler, 1999).

The SRMR value of model is .0782, which represents the model fit. The adjusted R^2 of the model explains the 47.58% of variance in GPB by other variables. In the end, the t-value (threshold value = > 1.96) of the all relationship were appropriate as well (Hair et al., 2010).

3.3.3. Mediation analysis

We performed mediation effect of GA in the relationship between, EC, SIN and SIM with GPB. All direct and indirect effects remains significant after inclusion of mediator which suggest the no mediation or partial mediation (e.g. Maxwell et al., 2011). The results of model show that EC, SIN and SIM remain significant in presence of mediator. However, we find that total effect and variance account for (VAF) for EC -> GPB was .2452, SIN-> GPB .3220, and SIM -> GPB .3322 (indirect effect/ total effect). These resultssuggest the partial mediation exist in all three relationships (e.g. Hair et al., 2016).

Table 5: Results

Relationship	Standard bootstrap results – Direct effect			Standard bootstrap results – Indirect effect			Standard bootstrap results – Total effect		
	Mean	St. error	t-value	Mean	St. error	t-value	Mean	St. error	t-value
EC -> GA	0.1171	0.0272	4.3173	-	-	-	0.1171	0.0272	4.3173
GA -> GPB	0.2951	0.0408	7.2822	-	-	-	0.2951	0.0408	7.2822
EC -> GPB	0.1065	0.0268	3.9521	0.0346	0.0094	3.6931	0.1411	0.0288	4.8780
SIN -> GA	0.4109	0.0377	10.9260	-	-	-	0.4109	0.0377	10.9260
SIN-> GPB	0.2557	0.0446	5.7821	0.1214	0.0207	5.9321	0.3770	0.0401	9.4753
SIM -> GA	0.2727	0.0428	6.4045	-	-	-	0.2727	0.0428	6.4045
SIM -> GPB	0.1641	0.0428	3.7832	0.0807	0.0179	4.5235	0.2429	0.0413	5.8854

5. DISCUSSION

Present study endeavors to provide insights about factors that affect the GPB. There are studies which analyze the GPB(i.e. Akehurst et al., 2012; Joshi & Rehman, 2015;

Kanchanapibul et al., 2014; Mostafa, 2007). However, previous studues unable to address the impact of specific topics as independent variables as present study covered. Few studies also considered the GA as antecdent of GPB. As a result, we check the influence of green advertising as mediator with EC, SIN, and SIM with GPB, which not explored before.

Hence, this study found that overall three constructs (EC, SIN, and SIM) are positive determinants of the GPB. The SIN remains strongest determinant of GPB, as people see themselves responsible for environment deterioration or improvement. However, after inclusion of mediator, all relationship remain significant which suggest that, green advertising have contributed with EC, SIN, and SIM. As predicted, SIN persists as strongest factor of GPB, after inclusion of GA as mediator. More interestingly, GA influence strongest with the SIM as mediator on GPB. Hence, H_1, H_2, H_3, H_4, H_5, and H_6 are supported.

6. CONCLUSION

In perspective of the social practices approach delivers the concept which apply on individual related actors their impact on GPB. There are two specific findings which contributes in the knowledge of the social practices approach. First, whatever knowledge individual gather in their routine life, if it is important to their surroundings, they react to it. Second, particular medium of information changes the perception of individual or nation, which suggests that social practices are strongly linked with information channel.

For the management perspective, we suggest that knowledge about environment deterioration, and attitude towards environment, cause the surge in purchasing of green products. On the other hand, green advertising is pivotal for enhancement of customer knowledge about environment degradation, and build/ alter the attitude and behavior about environment. We also surroundings. Hence, there is need to extract or strengthen this concern by initiation of seminars, rallies, and national campaigns about environment, or enforcing the businesses or education institutions to recommend to government and policy makers that naturally individual always concern of educate people. Eventually, it leads people to prefer environment friendly products. Social media networks can also be usful for government and businesses to create awareness regarding green environment and products.

6.1. Limitations of the study and future research recommendations

There are few recommendations with the presence of limitation regarding future researches; first, buying intention or actual buying behavior of green products may vary according to the type of the products and goods, hence, future studies could examine the customer behavior about specific types of green product i.e. energy efficient, inverter air conditioners, disposable batteries, low electricity consumption, microwave ovens, solar panels, and usage of wind energy. Second, present study framework model can also be examine by using other variables as moderators and mediators i.e. personality type, income level, age groups, and education level. Third, other variables could also be used as predictors that influence the green purchase behavior. Forth, the data collected for this study were from people presented in office, and students of universities who came to attend classes, therefore, it is suggest that data collection from those places where people actually could buy the green products i.e. shopping malls, grocery stores, and retail stores, could provide different results. Lastly, data were collected

from one city of Pakistan, which might consider as hurdle to generalize the results, hereafter, it is recommend that data collect from other cities of Pakistan to reach generalizability of results.

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