# HOW EFFECTIVE ARE YOUR ACTIONS? IMPACT OF PERCEIVED CONSUMER EFFECTIVENESS ON GREEN PURCHASING BEHAVIOR

## Dr. Manoj Das, Institute of Management Technology Hyderabad
## Dr. Mahesh Ramalingam, Institute of Management Technology Hyderabad

## ABSTRACT

*Although several firms are coming up with green products many of them have not been able to perform effectively. There is an increasing trend among millennials with regards to considering the impact of their purchases on the environment. Among the many factors considered by them two factors which are of prime importance are green trust and price fairness. Our study establishes that perceived consumer effectiveness leads to green purchasing behavior. We have found partial mediation effects for green trust and price fairness. This study offers important implications for academicians and policymakers.*

**Keywords:** Perceived Consumer Effectiveness, Green Purchasing Behavior, Price Fairness, Green Trust.

## INTRODUCTION

Although several firms have been launching green products over the past few years, their success rate has been abysmally low (Gleim & Lawson, 2014). In fact, a surprising element is that there is a strong disconnect between what people claim they feel about the environment and their resulting actions (Cronin et al., 2011; Makower & Pike, 2009). This is evident from the fact that many people still are not very keen to green products. Some plausible reasons could be higher prices of green products (Mahenc, 2007) or people's inability to understand their benefits initially (Olson, 2013). Hence, the objective of this study is to understand how consumers use their choices effectively resulting in green purchase behavior while accounting for price fairness and green trust.

## LITERATURE REVIEW

### Perceived Consumer Effectiveness (PCE)

PCE represents the degree of an individual's confidence in their personal efforts towards resolving problems (Weiner & Doescher, 1991). In the current study, we are measuring PCE in pro-environmental behavioral studies context as an "*evaluation of the self in the context of the issue*" (Berger & Corbin, 1992). In fact, studies done in a collective society (e.g., China and India) on consumer behavior for pro-environment activities have established that PCE impacts the behavioral intension and/or actual behavior of consumer positively (Yadav & Pathak, 2016; Zhao et al., 2014).

## Green Trust

Green trust has been established as a precursor resulting in purchase intention (Chen and Chang, 2012). When consumers trust the environmental claims made by the companies regarding their products they have a favorable attitude towards them (Lee et al., 2011). In fact, this opinion may be stemming from their repeated exposure to broader advertising mediums (i.e. TV, news media and the internet) (Vermillion & Peart, 2010). It has been established that consumers' green trust positively impacts their green product purchase attitude (Chen, 2010).

## Price Fairness

Fairness has been conceptualized as a decree to understanding whether a result and/or the procedure for arriving at the result was rational, acceptable, or fair (Bolton et al., 2003). Pricing is a major decision making criteria for the majority of consumers with research indicating that although consumers may be willing to bear some costs to resist unfair prices, however there is a limit to these costs after which they perceived such pricing as unfair (Urbany et al., 1989). Studies have found that pro-environmental behavior is clearly associated with personal reward and negatively associated with personal cost (Manning, 2009; Paladino, 2007). Also, since price is what consumers sacrifice for the reward, it is found that for individuals who are price and value conscious, pricing negatively influences their purchase intention (Lichtenstein et al., 1993) particularly in the case of green products, where the rewards will materialize in the future (Cronin et al., 2011). Price fairness is the link between values, beliefs, norms and actual behavior resulting in judgment, and translating into behavior (Iyer et al., 2016; Xia et al., 2004). It also has an influence on perceived value and buying intention when business practices are transparent (Catoiu et al., 2010).

## Green Purchasing Behaviour

Previous studies have confirmed that in case of identical products, the environmental aspects emerge as preferential criteria in case of ecologically conscious customers while evaluating the product since customer want to contribute efforts for betterment of the environment (Lin & Huang, 2012). In fact, this trend of green consumerism (Figure 1) is on the rise in Asian region (Gurau & Ranchhod, 2005). With specific reference to emerging economies, studies have found perceived environmental knowledge has an impact on choosing green products which further results in intention of purchasing such products (Yadav & Pathak, 2016; Kumar et al., 2017).
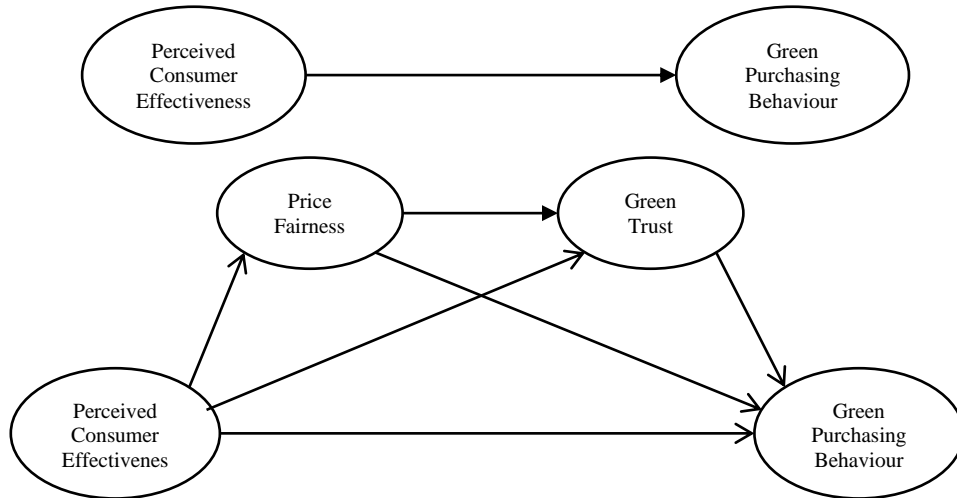
**FIGURE 1**
**CONCEPTUAL MODEL**

## HYPOTHESIS

*H1:*     *Perceived consumer effectiveness is positively related to green purchasing behavior.*

*H2:*     *Price fairness mediates the relationship between perceived consumer effectiveness and green purchasing behavior.*

*H3:*     *Green Trust mediates the relationship between perceived consumer effectiveness and green purchasing behavior.*

*H4:*     *Price fairness and green trust serially mediate the relationship between service quality and green purchasing behavior.*

## METHOD

Our sample consists of 192 cross-sectional student data collected from different business school in India. The usage of students sample for studies related to green marketing has been ratified by previous studies (Chan, 2002; Yadav & Pathak, 2016). Out of the total respondents, 36 % respondents were female, and 64% respondents were male, the average age was 22 and the average income was 12 lakhs. Respondents were briefly explained about the purpose of the study.

### Measures

We have used well established in this study and measured responses on a seven-point Likert scale where 1 denoted strongly disagree, and 7 denoted strongly agree. Perceived consumer effectiveness was measured using four-item scale based on the research of (Kim & Choi, 2005; Kim, 2011). Price fairness was measured using three-item scale based on the research of (Campbell, 1999). Green purchasing behaviour was measured using four-item scale based on research of Lee (2008) and green trust three-item scale was adopted from (Chen, 2010). The reliability and validity of the latent constructs are presented in Table 1.

# RESULTS

To test the psychometric properties of the latent constructs the Partial Least Square Structural Equation Modeling (PLS-SEM) was used in Smart PLS 3.2.7 software (Ringle et al., 2015). The serial mediation model was tested using Process macro 3.2 with 5000 Bootstrap Samples in IBM SPSS software recommended by Hayes, (2013). The results obtained from the preliminary analysis of descriptive statistics (mean and standard deviation) and correlation correlations among the study variable are presented in Table 1. The intercorrelations among the variables are positive and statistically significant at the 0.05 level.

| Table 1 SUMMARY OF DESCRIPTIVE STATISTICS | | | | | | |
|---|---|---|---|---|---|---|
| | Mean | SD | (1) | (2) | (3) | (4) |
| (1)Perceived Consumer Effectiveness | 5.975 | 0.752 | 0.744 | | | |
| (2)Price Fairness | 4.951 | 1.227 | $0.206^{**}$ | 0.955 | | |
| (3)Green Trust | 5.765 | 0.958 | $0.311^{**}$ | $0.359^{**}$ | 0.880 | |
| (4)Green Purchasing Behavior | 5.397 | 0.961 | $0.248^{**}$ | $0.311^{**}$ | $0.296^{**}$ | 0.798 |

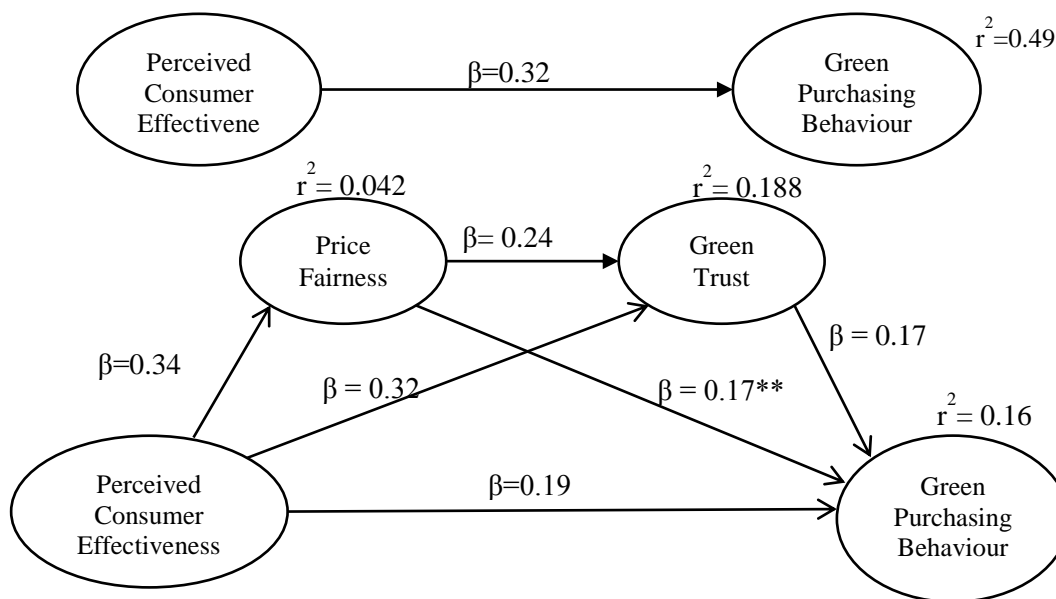Note: SD: Standard Deviation; **Correlation is significant at the 0.01 level (2-tailed). The bold diagonal values represent the square root of average variance extracted for each construct.

| Table 2 DIRECT EFFECT RELATIONSHIP AMONG THE CONSTRUCTS | | | | | | |
|---|---|---|---|---|---|---|
| | Item | Loadings | T Statistics | CA | CR | AVE |
| Green Purchasing Behaviour | GPB1 | 0.771 | 15.836 | 0.810 | 0.875 | 0.637 |
| | GPB2 | 0.767 | 13.067 | | | |
| | GPB3 | 0.837 | 25.357 | | | |
| | GPB4 | 0.816 | 21.137 | | | |
| Green Trust | GT1 | 0.856 | 26.079 | 0.855 | 0.912 | 0.775 |
| | GT2 | 0.908 | 48.035 | | | |
| | GT3 | 0.876 | 33.014 | | | |
| Perceived Consumer Effectiveness | PCE1 | 0.684 | 8.411 | 0.733 | 0.832 | 0.553 |
| | PCE2 | 0.745 | 11.866 | | | |
| | PCE3 | 0.815 | 20.322 | | | |
| | PCE4 | 0.725 | 12.270 | | | |
| Price Fairness | PF1 | 0.978 | 119.254 | 0.952 | 0.969 | 0.912 |
| | PF2 | 0.932 | 46.514 | | | |
| | PF3 | 0.954 | 108.336 | | | |

Note: CA: Cronbach's Alpha; CR: Composite Reliability; AVE: Average Variance Extracted

The summary of measurement model results (Cronbach's alpha, Composite reliability (CR), Standardized factor loadings and Average variance extracted (AVE)) are presented in Table 2. The standardized factor loadings are in the range of 0.862 to 0.978 and statistically significant (t value>1.96) which indicates that all the items are properly loading on the corresponding latent construct. Cronbach's alpha and composite reliability values of all the latent construct ranges from 0.733 to 0.952, which are greater than the threshold of 0.70, recommended by (Hair et al., 2017), thereby showing the internal consistency of the latent constructs. The average variance extracted (AVE) values ranged from 0.553 to 0.912which are above 0.5 (Hair et al., 2017) and hence satisfy the convergent validity. The discriminant validity is evaluated using Fornell-Larcker Criterion method. The bold diagonal values Table 1, represent the square

root of the average variance extracted (AVE) for each construct is greater than off the diagonal values (correlation). Hence, the discriminant validity is established.



**FIGURE 2**
**RESEARCH MODEL**

| Table 3 | | | | | | |
|---|---|---|---|---|---|---|
| DIRECT EFFECT RELATIONSHIP AMONG THE CONSTRUCTS | | | | | | |
| | B | se | t | p | LLCI | ULCI |
| PCE→PF | 0.336 | 0.116 | 2.901 | 0.004 | 0.108 | 0.564 |
| PCE→GT | 0.315 | 0.085 | 3.693 | 0.000 | 0.147 | 0.484 |
| PF→GT | 0.241 | 0.052 | 4.606 | 0.000 | 0.138 | 0.344 |
| PCE→GPB | 0.191 | 0.091 | 2.112 | 0.036 | 0.013 | 0.370 |
| PF→GPB | 0.171 | 0.057 | 3.025 | 0.003 | 0.060 | 0.283 |
| GT→GPB | 0.171 | 0.075 | 2.293 | 0.023 | 0.024 | 0.318 |

Note: GPB: Green Purchasing Behavior; GT: Green Trust; PCE-Perceived Consumer Effectiveness; PF-Price Fairness; B-Un Standardized Beta Coefficient; se-Standard Error; t-t Statistics; p: Probability Value; LLCI: Lower Limit Confidence Interval; ULCI: Upper Limit Confidence Interval

Further, the structural model was evaluated by path diagram (Figure 2), with the help of the regression weights (B) and t-statistics in order to evaluate to direct relationship between dependent and independent variables (Table 3). All the direct relationships are statistically significant at the 0.05 level (t >0.196). The co-efficient of determination ($R^2$) for all variables price fairness=0.042, green trust=0.195 and green purchase behavior=0.146) are satisfactory. The serial mediation effect results were presented in Table 4. It shows that all the three mediation hypotheses, including the serial mediation hypothesis are statistically significant. Moreover, the direct relationship between Perceived Consumer effectiveness and green purchasing behavior was significant. Hence there exists a partial mediating effect.

| Table 4 SERIAL MEDIATION ANALYSIS RESULT | | | | |
|---|---|---|---|---|
| | B | se | LLCI | ULCI |
| PCE→PF→GPB | 0.058 | 0.036 | 0.006 | 0.143 |
| PCE→GT→GPB | 0.054 | 0.033 | 0.000 | 0.130 |
| PCE→PF→GT→GPB | 0.014 | 0.010 | 0.000 | 0.039 |

Note: B: Un Standardized Beta coefficient; SE: Standard Error; LLCI: Lower Limit Confidence Interval; ULCI: Upper Limit Confidence Interval

## DISCUSSION

The present study tested the direct and indirect relationships between perceived consumer effectiveness and green purchase behavior. The partial mediating effect indicates that there is a complex relationship among these variables (Chan, 2002; Lai & Cheng, 2016; Wei et al., 2017). It has been established in the literature that when individuals have positive beliefs about others intent or deeds it leads to trust along with making oneself vulnerable to their actions (Rousseau et al., 1998). However, due to certain firms making exaggerated claims about their products performance consumer trust has declined towards such claims (Kalafatis & Pollard, 1999). Hence, it is absolutely imperative for companies to ensure that their claims are backed by the performance of their products. Also, it has been established that satisfied consumers maintain long-term association with the sellers (Ganesan, 1994; Yeh & Li, 2009).

Our intention of using price fairness is further strengthened from the call for research to explore it in the context of buyer-seller relationships and more generic influences (e.g., Social customs, consumer awareness, and individual characteristics) (Xia et al., 2004). Also, it has been established that customers' fairness perceptions is dependent on the supplier's assurance and the quality of the goods compared to the price paid (Smith, 1999). Our results also highlight that price fairness and green trust have an impact on purchase behavior.

This study has several important academic and business contributions. First, our study provides a framework for understanding how perceived consumer effectiveness is increased by green trust resulting in purchase of green products. Second, it also proves the existence of the mediating effect between perceived consumer effectiveness and green purchasing behavior third; this study forms the base for augmentation of previous research focused beyond buyers' purchase intentions and contributes towards of marketing knowledge.

## CONCLUSION

Companies should emphasize on the environmental claims and backing it up with proof in all marketing communications directed towards consumers can reduce consumer skepticism in the market. In particular, things like green certifications, ecological packaging etc. Would influence the green purchase behavior (Mostafa, 2007; Lai & Cheng, 2016; Yadav & Pathak, 2016). This can lead to a strong differentiation for them in the long run in the minds of consumers and help in grabbing opportunities (Polonsky, 1994). Also policy makers should take into account these factors while formulating long-term environmental strategies. This would reinforce the consumer's faith in such products and promote a long term inclination towards sustainable consumption. Future research can be done by undertaking longitudinal studies to investigate whether any changes occur in the individual's behavior over the different stages of product life cycle.

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