

# Investigating the Influence of Spirituality, Environmental Concern and Ecological Knowledge on Consumers' Green Purchase Intention

**Yatish Joshi**

Assistant Professor , GSMVNIET, Palwal

## **Abstract**

*This study investigated the influence of spirituality, environmental concern and ecological knowledge on consumers green purchase intention. The sample was undergraduate students of the University of Delhi. Using hierarchical multiple regression analysis, this study found that spirituality, environmental concern and ecological knowledge significantly influenced consumers green purchase intention. Therefore, this study supports the idea that spirituality, environmental concern and ecological knowledge should correspond to a stronger desire to consume the pro-environmental product. Further, this research finding may help public policy makers in fostering green consumption and marketers in designing sustainable marketing strategies.*

## **1. Introduction**

In support for environmental concern and sustainable development, governments across the world are paying greater attention to sustainable consumption. Consumers frequently ignore the effect of their consumption practices on society and the earth, these unplanned consumption practices may bring about "natural, social and economic degradation" (Young et al., 2010).

India is one of the growing economies; this growth is also associated with various environmental and social problems. In a study led by the United Nations in 2011, India was positioned as the seventh most polluted nation on the planet, (UNEP, 2011). Excessive industrialization and increasing consumption held responsible for this cause. The Indian government is trying hard to address these issues and promote environmentally friendly behaviour; however, despite these efforts pollution is on the rise. To address this issue, it is needed to make laws to promote sustainability, as well as to motivate the public for responsible consumption. Green purchasing is an important form of environmentally responsible behaviour and includes purchasing of environmentally friendly products (De Pelsmacker et al., 2005).

Green purchasing is important as consumers possess the capability to prevent or decrease environmental damage by purchasing sustainable products (Arvola et al., 2008). In a study, Grunert and Juhl (1995) reported that consumer's purchases are responsible for 40% of the environmental damage. Hence, understanding consumer green purchases are very important in bringing the green change. By understanding the factors affecting consumer green consumption behaviour, we can influence them to buy green products. There has been vast research on the topic of green consumerism. Most of the research investigated the antecedents of green consumption (Lee, 2010; Nittala, 2014). However, a limited number of studies explored the role spirituality, environmental knowledge and environmental concern on consumers' green purchase intention. Further, no studies in India have investigated the impact of these variables on consumers green purchase behaviour. This research tried to fill this gap by investigating the effect of spirituality, environmental concern and ecological knowledge on consumers' green purchase intention. This study has important implications for the policy maker and the Government. As by identifying the

predictors of green purchase, proper marketing strategies can be taken to address the problem and to increase the purchase of sustainable products.

## 2. Literature review and conceptual framework

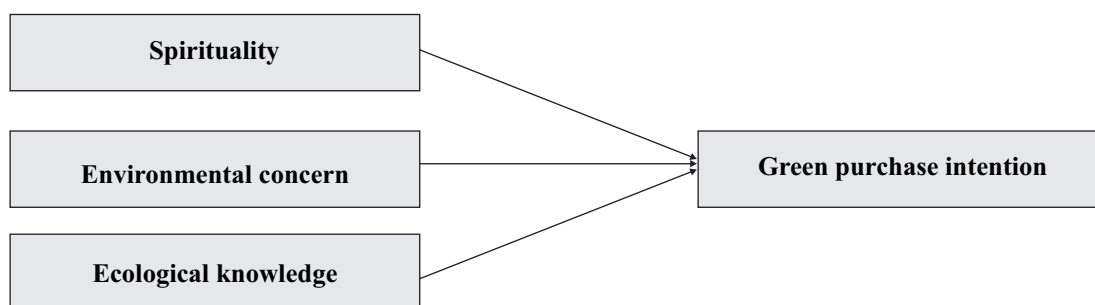
In an attempt to explore green buying behaviour, prior studies have concentrated on portraying the basic values, attitude and behavioural intentions towards green products (Tanner and Kast, 2003; Vermeir and Verbeke, 2006; Vermeir and Verbeke, 2008). The theory of reasoned action (TRA) (Ajzen and Fishbein, 1980) and the theory of planned behaviour (TPB) (Ajzen, 1985) were the two noticeable theories used by the majority of the studies. Although previous studies have explored various determinants of consumer's, environmental behaviour (Tanner and Kast, 2003; Vermeir and Verbeke, 2006; Young et al., 2010) still the spiritual dimension is not yet well explored. In addition, the impact of spirituality, environmental knowledge and environmental concern ARE not explored in the Indian context. To bridge this gap, a literature review of the major constructs under investigation and their relationships with green purchase intention is provided and the hypothesis are formulated on the basis of that. The conceptual framework for the study is shown in figure 1.

### 2.1. Green purchasing

In accordance with Smith et al. (1996), the 'green' product or service is often a product or service with a diminished impact on the natural environment due to its materials, manufacturing, use or disposal. Consuming environment-friendly product or service reflects the concern for preserving the surroundings. Analysis of environment-friendly product or service is usually part of research on socially responsible consumption. A socially responsible consumer is the person who buys products and services recognized to have a positive (or less negative) impact on the environment or the society (Robert, 1995). These kinds of exploration have been performed in several nations within the last few years. In a study Ramly et al. (2008) looked at whether religiosity may act as a predictor associated with consumer ethical behaviour. Further, Lau (2010) also studies effects of religiosity in socially responsible consumption.

Various other studies attempted to research directly the green purchase behaviour. Kim (2011) attempted to explore green consumption patterns in Korea by looking into the actual role of collectivism, personal values, environmental attitudes and perceived consumer effectiveness. Further Chan (2001) investigated the predictors of Green Purchase Behaviour of Consumers in China. In many studies previous researchers have used consumer purchase intention as a measure of consumer sustainable behaviour.

Fig.1: Conceptual Framework



## 2.2. Spirituality

Spirituality can be defined as the personalized hunt for understanding the response to ultimate questions regarding life, regarding relationship, which may (or may not) bring about or crop up from the religious rituals or community (King and Crowther, 2004). Spirituality is necessary for coexistence with the society because it explains the meaning, purpose, and sense of moral ideas (Nelson-Becker and Canda, 2008). Spirituality search for the holy or divine via given ways of viewing and living life. As an individual's internal orientation towards a larger transcendent reality "that binds all things into a more unitive harmony" (Piedmont, 1999). Spirituality has a motivational impact in the human mental framework motivational. Practically, spirituality relates moral insight and conduct. It might be an imperative element in deciding how individuals behave including purchase behaviour. Further, previous studies have found a positive relationship between religiosity and consumer green purchase intention (Chairy, 2012). Hence, we formulate the hypothesis.

### Hypothesis 1:

Spirituality will positively predict green purchase intention of Young consumers.

## 2.3. Environmental concern

Environmental concern refers to "an affective attribute that can present a person's worries, compassion, likes, and dislikes about the environment" (Yeung, 2005). Environmental concern found to have a positive influence on consumers' green purchase intention (Grunert, 1993). Further, Joshi and Rahman (2015) conducted a review of 53 studies and reported environmental concern as a predictor of consumer green purchase intention. Further, many studies have found that environmental concern has a positive influence on consumer's environmental behaviour (Bang et al., 2000; Lee, 2008). Hence,

we propose the following hypothesis:

H5: Environmental concern will positively predict green purchase intention of Young consumers.

## 2.4. Environmental knowledge

Environmental knowledge reflects consumer's knowledge of various ecological problems and issues and actions to prevent or solve these issues (Young et al., 2015). Previous studies on environmental knowledge have found a strong relationship between consumer environmental knowledge and their green purchase behaviour (Bang et al., 2000; Padel and Foster, 2005). These studies reported that a substantial knowledge regarding environmental knowledge is necessary for taking appropriate actions towards environmental protection and consumers having higher environmental knowledge are more prone to show environmentally responsible behaviour (Mostafa, 2006; Young et al., 2010). Hence, we propose the following hypothesis:

H3: Environmental knowledge will positively influence consumers' green purchase intention.

**Table 1**  
Demographical Information of respondents

Details of students	Frequency (s)	Percentage (%)
(N = 351)		
<b>Gender</b>		
Male	214	60.97
Female	137	39.03
<b>Age</b>		
15 - 20	187	53.28
20 - 24	164	46.72
<b>Education</b>		
Under Graduate	227	64.67
Post Graduate	110	31.34
Others	14	3.99

## 3. Method

### 3.1 Sample

The data for the study was gathered from a survey of 351 (214 males and 137 females) students in Delhi. The respondents lie in between 15 to 24

years of age. Demographics of the sample are exhibited in table 1. To gather the data a survey instrument was produced by adopting scale items from the past studies. Before setting up the final poll a pilot review was conducted on 35 respondents. Final questionnaire was then prepared consisting demographic questions and questions of all other items. The data were collected by conveying the questionnaire to the respondents in the classroom settings and gathering it back once they filled it. A total of 442 questionnaires was conveyed to the students. Out of aggregate 442 questionnaires a total of 351 students participated, including 214 males and 137 females.

### 3.2 Measurements

The items utilized in the survey are given in Table 2. Every item utilized as a part of the survey

instrument is measured using 7-point Likert scale (e.g., 1 = strongly disagree to 7 = strongly agree; 1 = never to 7= always, etc.).

Five items were used to measure consumer, environmental knowledge. All items were adopted from knowledge of ecological issue scale (Mohr et al., 1998). The reliability of the scale is .83. Four items were utilized to measure the environmental concern. All the items were adopted from the scale used by Learly et al. (2014). The reliability of the scale is .83. Four items were used to measure spirituality. All the items were adopted from the scale used by Stillman et al. (2012). Four items were used to measure consumer green purchase intention. All the items were adapted from the scale used by Chan (2001). The reliability of this scale was .86. As per the suggested criteria, Cronbach alpha ( $\alpha$ ) of any scale should be equal to or greater than .65 (Burns and Bush, 2006). Hence, on the

**Table 2**  
Factor loading table

Factors	Factor Loadings						
	1	2	3	4	5	6	7
Environmental knowledge							
1) I know I purchase ecologically safe products.	.73						
2) I have more knowledge about recycling than an average person	.68						
3) I know where I can find products that create less wastage.	.66						
4) I have the knowledge about the sustainability symbols used on product packages.	.75						
5) I am very knowledgeable about environmental and social issues.	.76						
Eigenvalues	6.66						
Variance explained (in %)	25.21						
Cronbach's alpha	.85						
<b>Green purchase Intention</b>							
1) Over the next one month, I will consider buying products because they are less polluting.			.79				
2) Over the next one month, I will consider switching to other brands for ecological reason.			.76				
3) Over the next one month, I plan to switch to a green version of a product.			.69				
Eigenvalues			2.17				
Variance explained (in %)			20.68				
Cronbach's alpha			.87				
Environmental Concern							
1) When deciding what to buy, consumers should balance what is cheapest with what is in the best interest of the environment and society?				.78			
2) Those who consume more bear the greatest responsibility when it comes to protecting the environment?				.87			

3) Consumers should consider the environment as one of their stakeholders when making decisions?				.78		
4) To be environmentally responsible, consumers need to make purchases that account for the earth's physical and social limits?				.68		
Eigenvalues				1.94		
Variance explained (in %)				10.17		
Cronbach's alpha				.86		
Spirituality						
1) I feel God's presence					.66	
2) I experience a connection to all life					.79	
3) I feel a selfless for others					.74	
4) I feel deep inner peace and harmony					.68	
Eigenvalues					1.48	
Variance explained (in %)					9.29	
Cronbach's alpha					.87	

#### 4. Analysis

Firstly, Multivariate analysis of variance (MANOVA) was performed to check the group differences between sex, and in between gatherings of distinctive ages and educational levels regarding exposure to environmental messages through the various media sources, and green purchasing. Wilks's lambda criterion were utilized. MANOVA does not find any significant effect of (1) sex ( $F[3, 1732] = 1.22$ , Wilks' lambda = .97, non-significant.); (2) educational level ( $F[12, 2422] = 1.24$ , Wilks' lambda = .98, non-significant); and (3) age ( $F[12, 3223] = 1.04$ , Wilks' lambda = .99, non-significant.) on the study variables.

So we can say that sex, educational level and age won't work as covariates in further examinations. Factor analysis with a Varimax rotation was done to check whether the information can be decreased to vital elements. Sample adequacy was checked by utilizing Kaiser-Meyer- Olkin test. A value of .88 was obtained that demonstrates the adequacy of the sample. According to Hair et al. (2006), .45

ought to be the acknowledged standard for significant factor loadings. This paradigm is utilized as a part of the study.

There were total 16 items under the four examined variables. All the items experienced factor analysis. The outcome uncovered that all these four variables connected with 65.35% of the total variance. Environmental knowledge, represented 25.21% of the aggregate variance, all items utilized in the measurement of this component have loadings greater than .65. Green purchase Intention, represented 20.68% of the total variance, all items utilized in the measurement of this component have loadings greater than .68. Environmental Concern, represented 10.17% of the total variance, all items utilized in the measurement of this component have loadings greater than .77. Spirituality, represented 9.29% of the total variance, all items utilized as a part of the estimation of this element have loadings greater than .65. Table 2 demonstrates the factor loadings, reliability coefficients, and variances for each factor.

**Table 3**

Hierarchical Multiple Regression of the predictors of sustainable consumption behaviour (Controlling for Demographics)

Variable	$\beta$	Model 1		Model 2	
		$t$	$\beta$	$t$	$\beta$
Control Variables					
Gender		.08	1.37	.05	1.24
Age		-.07	-1.68	-.05	-1.15
Education		-.06	-1.47	-.05	-1.07
Predictors					
Spirituality				.39	16.76**
Environmental concern				.35	15.03**
Environmental knowledge				.32	13.65**
F		1.19.		164.23***	
R <sup>2</sup>		.00		.48	
Adjusted	R <sup>2</sup>		.47		

Note:  $N = 351$ , \* $p < .001$ , \*\* $p < .0001$ ,

Hierarchical multiple regression analysis was used to investigate the effect of Spirituality, Environmental concern and Environmental knowledge on green purchase intention. For conducting hierarchical multiple regression analysis, control variables (sex, educational level, and age) were entered in model 1 and the six variables in model 2.

The outcomes uncover that demographic variables are not associated with the three predictors and had no significant impact on the criterion variable  $R^2 = .00$ ,  $F = 1.19$ , non-significant. Model 2 tries to record the predictive influence of the combination of the six variables. The model indicates significant results, Adjusted  $R^2 = .47$ ,  $F = 164.23$ ,  $p < .0001$ .

Results of hierarchical multiple regressions were shown in Table 4. The results of the multiple regressions show that all the studied variables have significant predictability to consumer green purchase intention. Hence, these findings support all the hypothesis from 1 to 3. The multiple regression also showed that Spirituality, was the

top predictor of green purchase intention of consumers ( $\beta = .39$ ,  $p < .0001$ ), followed by environmental concern ( $\beta = .35$ ,  $p < .0001$ ), and environmental knowledge ( $\beta = .32$ ,  $p < .001$ ).

## 5. Discussion

The basic objective of this study is to find out the impact of Spirituality, environmental concern and environmental knowledge on green purchase intention of young consumers. Hierarchical multiple regression has been utilized to decide the predictive influence of study variables. The outcome demonstrates that all the studied variable predicts consumers' green purchase intention in the following descending order: (1) spirituality (2) environmental concern and (3) environmental knowledge. This article contributes by portraying that spirituality has a positive and significant influence on consumers green purchase intention. This result is in line with the findings of Chairy (2012), which suggest that spirituality is an important predictor of consumers green purchase intention.

Environmental concern found to have the positive influence on consumer green purchase intention. The result is in line with the result of past studies who have reported a significant, relation between environmental concern and consumer green purchase intention (Lee, 2014).

The environmental knowledge found to have a positive relationship with green purchase intention. The outcome supports the past research reporting a strong relationship between environmental knowledge and green purchase intention (Bang et al., 2000). An explanation for this result can be expressed as fundamental knowledge of environmental issues enables the consumers to search for green products and make green buying decisions.

## 6. Implications

The present study is the first; that enables the researcher to compare and analyses the effect of spirituality, environmental concern and environmental knowledge on individual green purchase intention. The discoveries propose that spirituality can be considered as an important indicator of green purchase intention. The present study informs about the principal indicators of green purchase intention of young consumers in Delhi. It suggests that consumer's green purchase intention can be developed by inculcating spiritual values in them. So the marketers and government should also focus on spiritual dimensions and impart environmental knowledge to the consumers. Environmental concern emerged as an important indicator of consumers green purchase intention. Which propose that buyers are delicate to the impact of their purchase on the environment. So marketers and advertisers should focus on highlighting the environmental features and represent their products as environmentally sustainable products. Green marketers should create messages to instruct the young buyers about the need for green purchasing. The messages should incorporate both rational as well as emotional appeals to motivate the young consumers.

## 7. Conclusion, Limitations and future research directions

The present study contributes by analyzing the predictive influence of important variables on green purchase intention of consumers. The results obtained through hierarchical multiple regression shows that spirituality, environmental concern and environmental knowledge are the most important indicator of consumers green purchase intention. The results of this study support the outcomes obtained by past studies (Lee, 2014). These outcomes are helpful for the public policy makers and marketers as by knowing about the important predictors of consumers green purchase intention, marketers can plan various strategies to promote consumers green purchasing. Public policy maker could arrange activities that would enhance people spirituality and closeness to God. Green product marketers could claim that their product is produced especially for spiritual people. Further research in green consumption should predict not only the intention to purchase green product but also the actual green purchase.

Like all other studies, the present study also has some limitations: first the study is taking into account self-reported information, which is subject to social desirability bias. However, to minimize this issue, the survey questions in the present study were taken from the diverse sources from the literature. It has been told to the respondents that there was no right response to any inquiry. Future studies may gather information through other methodologies (i.e. direct observation). Future studies might consider different variables, which were excluded in the present study. This may help future researchers to identify other factors affecting consumers green purchase intention.

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