

# **MATERIALISM AND GREEN PURCHASE BEHAVIOUR: RELATIONSHIP ANALYSIS**

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## **ABSTRACT**

The reports of Global Environment Survey have shown that people are shifting their focus towards purchase and use of eco-friendly or green products. There is a shift in the paradigm of consumption. This paper attempts to analyze if this shift will have same impact on people who are materialistic in behaviour. Materialism has always been looked upon as dark and against humanism. It has been negatively related to bionetwork in specific and well being in general. Green materialism, a term recently coined, appears to reflect the buoyant side of covetous desires. The topic has attracted much attention and interest from economists, sociologists and psychologists. This paper explores the relationship between materialism and green purchase behaviour. The principal objective of this paper is to understand the compatibility of two concepts i.e. 'green purchase behaviour and materialism' by exploring the eco friendly purchase behaviour of individuals with materialistic bent. With ever up surging information rights, there is increasing conscientiousness about conservation in consumers today. The results show that there is positive relationship between materialism and green purchase behaviour. The paper shows the analysis of materialism and green purchase behaviour across different age groups and gender. This provides a new edge to marketers as they can draw on this impel of sustainability. The findings would satisfy the gap in research to work up policies for green marketing and facilitate marketers to buckle up and devise more strategies to advance green purchase and consumption.

**Keywords:** Materialism, Green Purchase Behaviour, Green Consumption, Sustainable Consumption, Green Materialism

## **INTRODUCTION:**

There is increasing consciousness about degrading environment lately. People are being informed and educated on their responsibility towards environment and importance of conservation of environment for the coming generations. It's since last four decades that the realizations of environmental degradation facts such as deforestation, global warming, increasing sea level, exhaustion of sources of natural resources and depletion of ozone layer have been brought to attention by environmentalists. The topic has attracted much attention and interest from economists, sociologists and psychologists. The need for discernment on the topic by marketers arose due to the fact that it is the consumption that is the main cause of environment degradation. Environment is being deployed and smashed for consumption (Brown & Kasser, 2005). The consumption for self satisfaction has a bearing on society and the environment. The consumption by materialistic individual is all the more harmful in comportment. Materialism emphasizes ineffective consumption i.e. more than required or may be consumption even when not required (Good, 2007).

With ever up surging information rights, there is increasing conscientiousness about conservation in consumers today. The cognisant consumers create an ostensible coop of eco friendly possessions around them. To tackle to such a situation, exponents have come up with concepts like green marketing, green labels, sustainable consumption etc. They have brought into being the products that address the requirement of consumers who are basically having a soft corner for environment and are largely interested in green purchase behaviour. With this they cannot do away with rapacity of possessing material goods. This time the synthetic products are replaced by more natural ones but the conspicuousness in consumption remains. Green materialism, a term recently coined, appears to reflect the buoyant side of covetous desires. India being emerging economy, where the effect of globalization has resulted in increasing consumerism, the changing lifestyles and cultures are lying much in front for such transformation. The study of effect of environment friendly inclinations on consumption and material wants has not received much attention so far. This paper explores if there is some relationship between materialism and green purchase behaviour. We try to find out explicitly if this green materialism is something not hypocritical. We try to investigate if the term green as a prefix is a veil to banish the condemnation attached with materialism or there is an actual makeover. This provides a new edge to marketers as they can draw on this impel of sustainability. The findings would satisfy the gap in research to work up policies for green marketing and facilitate marketers to buckle up and devise more strategies to advance green purchase and consumption.

We have used terms, like sustainable, environmental, ecological and green, interchangeable without getting into the individual conceptualization of each term to keep the analysis simple and broad.

## **REVIEW OF LITERATURE AND DEVELOPMENT OF HYPOTHESES:**

The research on ecological consumption is old but it has taken upsurge with increasing globalization (Osterhus, 1997; Paelke, 2005). The word 'green' is being regarded as à la mode (Strizhakova & Coulter, 2013). The has been observed that by promoting of eco friendly products through green marketing the eco friendly individuals can be encouraged to buy more and more green products (Alwitt & Pitts, 1996).

There are increasing alarms by environmentalists about the limitations of ecosystem. Materialism has been negatively related to natural balance in specific and well being in general (Kilbourne & Pickett 2008; Brown & Kasser, 2004). There have been studies that have related the two i.e. materialistic behaviour and sustainable behaviour with global identity (Manchanda, 2014a/2014b; Strizhakova & Coulter, 2013) as they said it is the cultural identity that determines the relationship between materialism and sustainability. To understand green materialism, the investigation at global level is required. There level of materialism varies among developed and underdeveloped countries and globalization facilitate the augmentation of materialistic tendencies. Individuals develop a global perspective in their pursuit of consumption (Sharma, 2011). The permeation of being 'environmental friendly' has become the requirement of the day. Materialistic individuals are concerned with acquisition and possession of goods that let them stand out in crowd. Materialism has been explained as

value one associates to material goods (Manchanda 2014a; Richins and Dawson, 1992).

Materialism for environment enthusiast would be possession of products that are eco friendly. Environment enthusiasts are ready to shell out extra money for what are identified as the 'green' (Strizhakova & Coulter, 2013). The adverts of such green branded products make them more attractive. The opinion that goes behind purchase of eco friendly products is that one might be being good to self and justification to ecology by buying such products. As this time the purchase of non-eco friendly or synthetic products are replaced by more natural ones but the conspicuousness in consumption remains as it is. This put forth that both materialism and environmental friendliness can be present at one fell swoop (Manchanda 2014b; Adams, 2006). There are two main approaches for measuring materialism. The first approach is to measure materialism as a personality trait such as possessiveness, non-generosity, and envy (Belk, 1984). The second approach measures materialism as value in terms of acquisition centrality, success, and happiness (Richins, 2004). The second approach is used for the current study. For measuring green purchase behaviour, 5 item scale is used that covers the purchase of general environmental friendly goods (Kim and Choi, 2005).

Green purchasing connotes to the procurement of eco friendly products in such a manner that adequately indulge in creating the value for coming generation, future economy and at the same time minimize the harm and destruction to environment (Tan Booi Chen & Lau Teck Chai, 2010). The Green purchase behaviour has been defined by the International Green Purchasing Network (IGPN) as the purchase of such product that is least harmful towards environmental and divulge social responsibility (Tan Booi Chen; Lau Teck Chai, 2010). Green purchase behaviour refers to the inclination towards eco friendly products i.e. products that have been produced by means of ecological resources (Kilbourne & Pickett, 2008).

Green purchase behaviour is the behaviour of a person who has environmental or social issues concern whilst making purchasing decisions (Peattie, 2001). Any product to be called as green product necessitates that it should fulfil the criterion of balance between consumption requirement and environment (Ottman, Stafford & C. L. Hartman, 2006). Green purchase behaviour is found to be high in females than males (Barua & Islam, 2011) but there is no difference in materialism among gender (Barua & Islam, 2011).

The studies have shown that there is a tendency in people to pay extra price for green labled or organic products (Alston & P. Roberts, 1999).

The studies have found that there is a difference in purchase behaviour among people of different age. Young people are more inclined towards purchase and being materialistic (Mostafa, 2007; Feick et al., 2003; Quester & Smart 1993; Slama & Tashchian 1985). In an endeavour to explicate green purchase behaviour, demographic factors such as age, gender have been proposed as determinants (Roberts, 1996; Diamantopoulos et al. 2003). Many studies have shown that females are likely to be more environmentally apprehensive than males (Arcury et al. 1987; Borden and Francis 1978; Schan and Holzer 1990)

Relationship between Materialism and green purchase behaviour has also been researched in previous studies. Materialism and consumption has been negatively associated with ecology and sustainability. (Kilbourne & Pickett 2008; Brown & Kasser, 2004, Brown & Kasser, 2005; Kasser, 2005) Marketers under the camouflage of responsibility towards environment have been provoking materialistic tendencies and consumers are being in the habit of purchasing and using the environmentally friendly products.

The purchasers of green products or those who are obsessed by green consumption are in general well informed and knowledgeable females and adolescents. They play an important role because they are socially most conscious consumer. The recent research shows that green consumers are big shoppers. They in fact purchase extra during every spree of shopping. They generally purchase more often are not susceptible to price.

Based on the above review of literature, five null hypotheses have been developed.

1. **Hypothesis 1:** There is no significant relationship between in the sample
2. **Hypothesis 2a:** There is no significant difference among males and females on materialism as Value
3. **Hypothesis 2b:** There is no significant difference among males and females on green purchase behaviour
4. **Hypothesis 3a:** There is no significant difference among different age groups on materialism as Value

5. **Hypothesis 3b:** There is no significant difference among different age groups on green purchase behaviour

**METHODOLOGY:**

The quantitative analysis is used to study the relationship between the variables under study. The quantitative methodology is used to analysis association among materialism on green purchase behaviour. Survey method is used to collect the data.

**DATA COLLECTION:**

The self administered questionnaire used for survey has three sections. First section includes questions regarding general and demographic details of respondents like their name, age, gender, education level, income level and occupation. The second section contains the nine item materialism scale of Marsha Richins (2004). The shorter version of Richin’s Scale is believed to hold suitable psychometric properties. The third section contains the five item scale to measure green purchasing behaviour taken from Kim and Choi (2005). Five point likert type scale is used for survey with the following options to choose from i.e. strongly disagree (1); somewhat disagree (2); neutral (3); somewhat agree (4) and strongly agree (5). For nine item scale used to measure materialism as value, the maximum total score would be 45 which show that a person is highly materialistic and minimum total score would be 9 which show that a person is not at all materialistic. The average score would be 27 showing neutral behaviour. For five item scale for green purchase behaviour, the maximum total score would be 25 which mean that a person is highly inclined towards purchase of green products and minimum total score would be 5 which means that a person is not at all inclined towards purchase of green products. The average score would be 15 showing neutral behaviour towards green products. Table 1 summarizes the details of scores that one can give in each scale used under study and what are the implications of the average scores of respondents.

**Table 1: Score Summary of two scales used in study**

Scale	Max Score	Minimum Score	Average of Minimum and Maximum Score
Materialism Scale	45 (highly materialistic)	9 (not at all materialistic)	27 (neutral)
Green Purchase Behaviour Scale	25 (highly inclined towards purchase of green products)	5 (not at all inclined towards purchase of green products)	15 (neutral)

**DATA ANALYSIS:**

The 51.42 percent of respondents are females and 48.58 percent respondents are males. The demographic details of age and gender are shown in Table 2a and 2b.

**Table 2a: Demographics: Age & Gender**

Age	Gender				Total	Total %
	No of Male	% Males in each age group	No of Females	% Females in each age group		
Below 20 years	30	33.71	59	66.29	89	19.47
20 years to below 30 years	67	49.63	68	50.37	135	29.54
30 years to below 40 years	72	55.81	57	44.19	129	28.23
40 years to below 50 years	39	50.00	39	50.00	78	17.07
50 years and above	14	53.85	12	46.15	26	5.69
<b>Total</b>	<b>222</b>	<b>48.58</b>	<b>235</b>	<b>51.42</b>	<b>457</b>	<b>100.00</b>

**Table 2b: Demographics (Gender \* Age - Cross-tabulation)**

			Age					Total
			Below 20 years	20 Years and below 30 years	30 years and below 40 years	40 years and below 50 years	50 years and above	
Gender (M=1; F=2)	Males	Count	30	67	72	39	14	222
		% within Gender (M=1; F=2)	13.5%	30.2%	32.4%	17.6%	6.3%	100.0%
		% within Age	33.7%	49.6%	55.8%	50.0%	53.8%	48.6%
		% of Total	6.6%	14.7%	15.8%	8.5%	3.1%	48.6%
	Females	Count	59	68	57	39	12	235
		% within Gender (M=1; F=2)	25.1%	28.9%	24.3%	16.6%	5.1%	100.0%
		% within Age	66.3%	50.4%	44.2%	50.0%	46.2%	51.4%
		% of Total	12.9%	14.9%	12.5%	8.5%	2.6%	51.4%
<b>Total</b>		Count	89	135	129	78	26	457
		% within Gender (M=1; F=2)	19.5%	29.5%	28.2%	17.1%	5.7%	100.0%
		% within Age	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	19.5%	29.5%	28.2%	17.1%	5.7%	100.0%

Table 2a and 2b shows that out of total sample surveyed, 25.16 percent of respondents are from two categories i.e. below 20 years of age above above 50 years of age, 29.54 percent are of 20 years to below 30 years of age. 28.23 percent of respondents are 3 years to below 40 years and 17.07 percent respondents are 40 years or below 50 years.

**Table 3: Descriptive Statistics**

	N	Mean	Std. Dev	Std. Error
Materialism as Value	457	23.34	9.024	.422
Materialism as Value - Males	222	22.52	8.329	.559
Materialism as Value – Females	235	24.11	9.588	.625
Materialism as Value - Below 20 years	89	24.42	9.622	1.020
Materialism as Value - 20 years to below 30 years	135	22.53	8.058	.694
Materialism as Value - 30 years to below 40 years	129	23.15	9.466	.833
Materialism as Value - 40 years to below 50 years	78	24.06	8.907	1.009
Materialism as Value - 50 years and above	26	22.58	9.904	1.942
Green Purchase Behaviour	457	18.65	4.762	.223
Green Purchase Behaviour - Below 20 years	89	19.81	4.600	.488
Green Purchase Behaviour - 20 years to below 30 years	135	19.04	4.537	.391
Green Purchase Behaviour - 30 years to below 40 years	129	18.19	4.891	.431
Green Purchase Behaviour - 40 years to below 50 years	78	17.47	4.549	.515
Green Purchase Behaviour - 50 years and above	26	18.5	5.616	1.101
Green Purchase Behaviour - Males	222	19.32	4.824	.324
Green Purchase Behaviour - Females	235	18.02	4.626	.302

Table 3 shows the descriptive statistics of different variables. The mean score for materialism scale is 23.34 with standard deviation of 9.024. The mean score for green purchase behaviour scale is 18.65

with standard deviation of 4.762. The mean of materialism score below the average score but not much small and the mean of green purchase behaviour score is above average.

The analysis of descriptive statistics with respect to different gender and different age group is also shown in table 3. The mean score for materialism is 22.52 for males and 24.11 for females. The mean score of materialism does not vary much across different age groups and the same is below the average score of 27. For respondents below 20 years of age have mean score of 24.42, for 20 years to below 30 years its 22.53, for 30 years to below 40 years its 23.15, 40 years to below 50 years its 24.06 and for 50 years and above its 22.58.

The mean score for Green Purchase Behaviour is 13.32 for males and 12.02 for females. The mean score of Green Purchase Behaviour does not vary much across different age groups and the same is below the average score of 15. For respondents below 20 years of age have mean score of 13.81, for 20 years to below 30 years its 13.04, for 30 years to below 40 years its 12.19, 40 years to below 50 years its 11.47 and for 50 years and above its 12.50.

**Table 4: Correlations between**

Variables		Materialism as Value	Green Purchase Behaviour
Materialism as Value	Pearson Correlation	1	.111
	Sig. (2-tailed)		.017*
	N	457	457
Green Purchase Behaviour	Pearson Correlation	.111	1
	Sig. (2-tailed)	.017*	
	N	457	457

\*. Correlation is significant at the 0.05 level (2-tailed).  $p < 0.05$

Table 4 shows the correlation between green purchase behaviour and materialism as value. Correlation coefficient between materialism and green purchase behaviour was found to be 0.111\* which is significant at 0.05 level (2 – tailed). This indicates the positive relation between the variables under study i.e. as green purchase behaviour increases, materialism also increases. Thus Hypothesis one is not accepted.

**Table 5: ANOVA - Materialism as Value – Gender**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	289.554	1	289.554	3.576	.059
Within Groups	36842.551	455	80.973		
<b>Total</b>	<b>37132.105</b>	<b>456</b>			

Table 5 shows the analysis of variance of materialism in males and females. The F value is found to be 3.576 (1, 455) which is not significant. Thus there is no difference in materialism between males and females. Thus the hypothesis 2a is accepted.

**Table 6: ANOVA - Green Purchase Behaviour – Gender**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	191.161	1	191.161	8.570	.004**
Within Groups	10148.822	455	22.305		
<b>Total</b>	<b>10339.982</b>	<b>456</b>			

Table 6 shows the analysis of variance of green purchase behaviour in males and females. The F value is found to be 8.570 (1, 455) which is significant at 0.01 level. Thus there is a significant difference in green purchase behaviour between males and females. Thus the hypothesis 2b is not accepted.

**Table 7: ANOVA - Materialism as Value - Age**

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	251.660	4	62.915	.771	.544
Within Groups	36880.445	452	81.594		
<b>Total</b>	<b>37132.105</b>	<b>456</b>			

Table 7 shows the analysis of variance of materialism in different age groups. The F value is found to be 0.771 (4, 452) which is not significant. Thus there is no difference in materialism among different age groups. Thus the hypothesis 3a is accepted.

**Table 8: ANOVA - Green Purchase Behaviour - Age**

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	275.931	4	68.983	3.098	.016*
Within Groups	10064.051	452	22.266		
<b>Total</b>	<b>10339.982</b>	<b>456</b>			

Table 8 shows the analysis of variance of green purchase behaviour in different age groups. The F value is found to be 3.098 (4, 452) which is significant at 0.05 level. Thus there is a significant difference in green purchase behaviour among different age groups. Thus the hypothesis 3b is not accepted.

**RESEARCH FINDINGS AND DISCUSSION:**

The findings of this study supports that materialistic purchasing behaviour is correlates to the environmental concern of consumers (Mostafa, 2007; Roberts, 1996).

The findings show that respondents are below the average score on materialism scale and above the average score on green purchase behaviour scale. That shows that people are less materialistic and have greater inclination towards purchase of green products.

As far as relationship between materialism and green purchase behaviour is concerned, there is a positive correlation between them. The data collected shows that both of them move in same direction. If one is increasing, the other one also increases. The findings also support that there is a significant relationship among the variables under study. As the materialistic tendency is increasing the inclination towards purchase of green product is also increasing. This shows that marketers of green products can strategise to attract the attention of people who otherwise are indulging in worldly possession (Belk, 1983).

The descriptive statistics show that the mean score of materialism and green purchase behaviour are below the average but not much low. There is no gender difference found on materialism as value but the same differs across different age groups. While the green purchase behaviour varies among males and females but there is no significant difference in green purchase behaviour across gender.

So far as relationship of materialism as value and demographics are concerned, the findings support the previous research (Banerjee and McKeage, 1994; Richins & Dawson, 1992) that there is no significant relationship among males and females on materialism as value. It means that both males and females are found to be equally materialistic. Materialism as value also does not differ across different age groups. The results for analysis of green purchase behaviour also confirms to previous findings (McStay and Dunlap 1982, Arcury et al. 1987; Borden and Francis 1978; Schan and Holzer

1990, ) that for different age groups (Sinnappan and Rahman, 2011) and gender shows that the green purchase behaviour varies significantly among males and females and also among different age groups (Lee, 2008).

### **IMPLICATIONS AND DISCUSSION:**

The reports of Global Environment Survey have shown that people are shifting their focus towards purchase and use of eco-friendly or green products. There is a shift in the paradigm of consumption. This paper attempts to analyze if this shift will have same impact on people who are materialistic in behaviour (Survey of Global Environmental Issues, 2013). This study is useful for marketers who face a lot of challenges in swaying the consumers for purchasing the eco friendly products. There is a need to understanding the link between aspiration, acquisition and possession of material goods to green purchase behaviour. With the study relating materialism and green purchase behaviour, marketers would be able to design successful and lucrative marketing plans and strategies. The study shows that marketers and policy makers need to recognize that importance of green outlook of consumers. This would help them in predicting the consumer's behaviour more accurately. Marketers can make consumers feel more involved and close to environment by engaging themselves in green marketing strategies (Lee, 2008).

### **CONCLUSION:**

Bringing together the two concepts i.e. 'green' and 'materialism' put forth a challenge in itself whether the same works for or goes against the sustainability. Marketers need to appreciate the fact that environment concerns do attract the consumers and helps in getting optimistic consideration for their product. The ever increasing concern for environment has made the analysis all the more important. Consumers who comparatively encompass more concern for the environment do deem on how the quality of the ecosystem can be enhanced and they would unquestionably buy green products. This study has tried to analyse the relationship between materialism with ever increasing concern.

### **FUTURE SCOPE OF STUDY:**

In this study positive relationship has been found among materialism and green purchase behaviour. Further studies can further study the causal relationship among the variables. Regression analysis can be done for further investigation. To further explore the relationship, there is a need to verify the compatibility of two apparently discrete notions and to discover more upshot for the eco friendly purchase behaviour of individuals with materialistic bent. Further studies are required for development of such instrument that can measure such discrete variables. The further studies can focus on the standing of green labelling, recycle able products. Apart from gender and age as moderating factor, future study of green purchase behaviour can also be done in relation to other demographics like education level, occupation, income level etc.

### **REFERENCES:**

- [1] Adams, W.M., The Future of Sustainability: Re-thinking Environment and Development in the Twenty-first Century. Report of the IUCN Renowned Thinkers Meeting, 29–31 January 2006. Retrieved on: 2009-02-16.
- [2] Alston, K. and Prince Roberts, J. (1999). Partners in new product development: SC Johnson and the alliance for environmental innovation. *Corporate Environmental Strategy*, 6(2), pp.110-28.
- [3] Alwitt, Linda F. and Robert E. Pitts (1996). Predicting Purchase Intentions for an Environmentally Sensitive Product. *Journal of Consumer Psychology*, 5 (1), 49-64
- [4] Arcury Thomas A, Susan J. Scollay and Timothy P Johnson (1987). Sex difference in environmental Concern and Knowledge: The case of acid rain:.. *Sex Roles*. 16 (9), 463-472
- [5] Banerjee, Bobby and McKeage, Kim (1994). How Green Is My Value: Exploring the Relationship Between Environmentalism and Materialism. in *NA - Advances in Consumer*



- Research Volume 21, eds. Chris T. Allen and Deborah Roedder John, Provo, UT: Association for Consumer Research, Pages: 147-152
- [6] Barua, P. & Islam, M. S. S. (2011). Young Consumers' Purchase Intentions of Buying Green Products: A study based on the Theory of Planned Behavior. Retrieved from <http://urn.kb.se/resolve?urn=urn:nbn:se:umu:diva-45212>
- [7] Belk, Russell W. (1983). Worldly Possessions: Issues and Criticisms. in *Advances in Consumer Research*, Vol. 10, ed. Richard P. Bagozzi and Alice M. Tybout, Ann Arbor, MI: Association for Consumer Research, 514-519
- [8] Belk, R. W. (1984). Three scales to measure constructs related to materialism: reliability, validity, and relationships to measure happiness, *Advances in Consumer Research*, 11, 291-297.
- [9] Borden, Richard J. and Janice L. Francis (1978). Who cares about Ecology? Personality and Sex Differences in Environmental Concern. *Journal of Personality*, 46, 190-203.
- [10] Brown, K. W., T. Kasser, R. M. Ryan and J. Konow: 2004. Having and being: Investigating the pathways from materialism and mindfulness to well-being. Unpublished data, University of Rochester.
- [11] Brown, K. W., & Kasser, T. (2005). Are psychological and ecological well-being compatible? the role of values, mindfulness, and lifestyle. *Social Indicators Research*, 74, 349-368
- [12] Chen, T. B., & Chai, L. T. (2010). Green Purchase Behavior: Examining the Influence of Green Environmental Attitude, Perceived Consumer Effectiveness and Specific Green Purchase Attitude
- [13] Diamantopoulos, A., Schlegelmilch, B. B., Sinkovics, R. R., & Bohlen, G. M. (2003). Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *Journal of Business Research*, 56 (6), 465-480
- [14] Good, Jennifer (2007). Shop 'til we drop? Television, materialism and attitudes about the natural environment. *Mass Communication & Society*, 10(3), 365-383
- [15] Kasser, T. (2002). *The high price of materialism*. Cambridge, MA: MIT Press.
- [16] Kasser, T. (2005). Frugality, generosity, and materialism in children and adolescents. In K.A. Moore, & L. H. Lippman (Eds.), *What do children need to flourish? Conceptualizing and measuring indicators of positive development* (pp. 357-373). New York: Springer Science
- [17] Kim, Y. and Choi, S. M. (2005). Antecedents of green purchase behaviour: an examination of collectivism, environmental concern, and PCE. *Advances in Consumer Research*, 32, 592-599
- [18] Kilbourne, W. E., & Pickett, G. (2008). How materialism affects environmental beliefs, concern, and environmentally responsible behavior. *Journal of Business Research*, 61, 885-893.
- [19] Lee, K. (2008). Opportunities for green marketing: young consumers, *Marketing Intelligence & Planning*, 26(6), 573-586.
- [20] Rimple Manchanda. (2014a). *Materialism and Green Marketing: The Implicit Disconnect*. edited book: International Seminar on Socio Technical Frontiers of Global Management; Vol 1, Issue 1, ISBN 9789382061113, M Publication; Pg 119-123
- [21] Manchanda, Rimple (2014b). An enquiry into association amid materialism and purchase of green products. proceedings of International Business School Conference (IBSCON- 2014) organized by Amity International Business School, Amity University; 6th & 7th March 2014
- [22] McStay, Jan R., and Riley E. Dunlap (1982). Male-Female Differences in Concern for Environmental Quality. *International Journal of Women's Studies*, 6 (4), 291-301.
- [23] Mostafa, M. M. (2007). Gender differences in Egyptian consumers green purchase behavior: The effects of environmental knowledge, concern and attitude. *Int. J. Consumer Stud.*, 31, 220-229.
- [24] Ottman, J. A., Stafford, E. R., & C. L. Hartman (2006). Avoiding green marketing myopia: Ways to improve consumer appeal for environmentally preferable products. *Environment*, 48, 22-36
- [25] Osterhus, T. L. (1997). Pro-social consumer influence strategies: When and how do they work? *The Journal of Marketing*, 61, 16-29
- [26] Paelke, R. (2005). Sustainability as a bridging concept. *Conservation Biology*, 19, 36-38
- [27] Peattie, K. (2001). Golden Goose or Wild Goose? The Hunt for the green Consumer Business Strategy and the Environment, 10, 187-19

- [28] Richins, M. L and Dawson S. (1992) A Consumer Value Orientation for materialism and its measurement: scale development and validation, *Journal of Consumer Research*, 19, 3, 303-316.
- [29] Richins, M. L. (2004) The material values scale: measurement properties and development of a short form, *Journal of Consumer Research*, 31, 209-219.
- [30] Roberts, J.A. (1996). Green consumers in the 1990s: profile and implications for advertising. *Journal of Business Research* , 36(3), 217-231
- [31] Schahn, Joachim, and Erwin Holzer (1990), "Studies of Individual Environmental Concern: The Role of Knowledge, Gender, and Background Variables," *Environment and Behavior*, 22 (6), (March), 73-86.
- [32] Sharma, P. (2011). Country of Origin Effects in Developed and Emerging Markets: Exploring the Contrasting Roles of Materialism and Value Consciousness. *Journal of International Business Studies*, 42, 285-306.
- [33] Sinnappan, Punitha and Rahman, Azmawani Abd, 2011. Antecedents of Green Purchasing Behavior among Malaysian Consumers. *International Business Management*, 5: 129-139.
- [34] Strizhakova, Y.; Coulter, R.A, (2013). The 'green' side of materialism in emerging BRIC and developed markets: The moderating role of global cultural identity. *International Journal of Research in Marketing*, 30; 1; 69-82

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