

CONSUMER ENVIRONMENTAL RESPONSIBILITY TOWARDS GREEN CONSUMPTION IN SULTANATE OF OMAN

Dr. Mohammed Al-Hazi

Associate Professor, Faculty of Business Studies, Arab Open University, Muscat, Sultanate of Oman

Dr. Subrahmanian Muthuraman

Assistant Professor, Faculty of Business Studies, Arab Open University, Muscat, Sultanate of Oman

ABSTRACT

Consumers' concern with green issues is a worldwide subject that continuously changes their lifestyle into becoming more environmentally responsible. Consumer's environmental responsibilities are related to the interest towards the biophysical environment and its problems related to the consumer and the surroundings. Many developing countries effective launch campaigns to promote "Green Consumption". Consumers' awareness on products marketed in green marketing is important in guiding their purchasing decision of green products. This study aims to understand the consumer environmental responsibility towards green consumption and usage of plastic product in Muscat city. This research provides a brief review to identify the green values of the consumers, their level of awareness about environmental responsibility, green products and practices. The study was conducted on 162 respondents. Responses were randomly drawn from common public in Muscat city with the help of a structured questionnaire. Data has been analyzed by using t test, linear regression, paired comparisons test and weighted average. Research finding shows that there is a medium level of environmental responsibility towards green consumption practices and products was found among the consumers still consumers have shown positive attitude towards green products. This has given good insights for the policy makers and suggests designing more intensive awareness campaigns promoting green products due to high green value among the consumers. This study has implications for marketers as well as consumers to make a good cause for start of an era of green marketing in Sultanate of Oman.

KEYWORDS: Environmental Responsibility, Green Product, Plastic Products, Consumerism and Consumer decision

1. INTRODUCTION

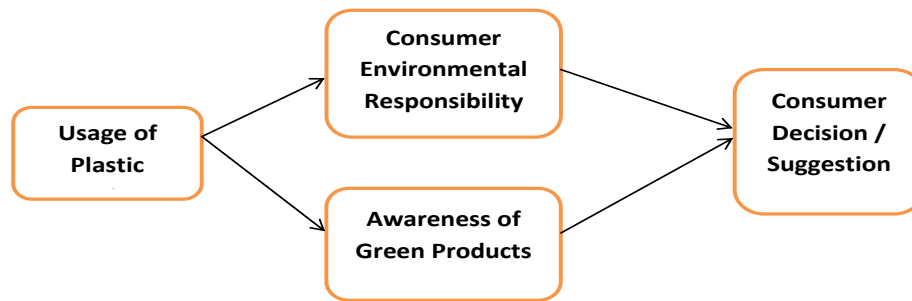
Plastic bags have been introduced in 1970's (Williamson, 2003) and gained an increasing popularity amongst consumers and retailers worldwide. Plastic bags are one of the most extensively used shopping bags all over the world. Plastic is a vast industry in both industrial and developing countries, and plastic bags are widely used by shoppers everywhere because they are cheap, light and durable. However, plastic is a major pollutant to the environment. It causes emissions of toxic gases and solid suspensions when manufactured or burnt as waste (Yahya Al Salmani, 2013). Today most consumers use it regularly and wastefully as they obtain it free of cost from the retail outlets (Ruban, 2012). This year 5 trillion plastic bags will be consumed. That's 160,000 a second! Put one after another they would go around the world 7 times every hour and cover an area twice the size of France (The World Counts) Considering the growing consumption of plastic products, some institutions are becoming aware of the magnitude of the environmental impacts caused by plastic waste. On the other hand, non-industrial (developing) countries are also launching effective campaigns to promote "Green Consumption". International organizations and institutions have also begun to realize the importance of such environmental initiatives by encouraging the concept of "Green Consumption" (Yahya Al Salmani, 2013). Consumers' concern with green issues is a worldwide subject that continuously changes their lifestyle into becoming more environmentally responsible (Norazah Mohd. Suki, 2013). A consumer whose purchasing behaviour is persuaded by environmental concerns is known as a green consumerism (Shrum et al. 1995).

1.1 Study Objective

The objectives pertaining to this study are:

1. To assess the consumer awareness towards Green Consumption in Muscat, Sultanate of Oman
2. To find out the environmental responsibility among the consumers in Muscat city.
3. To understand the reasons for Consumer Usage of Plastic Product

1.2 The Theoretical Model



2. LITERATURE REVIEW

Consumers' environmental responsibilities are related to the interest towards the biophysical environment and its problems related to the consumer and the surroundings. It has been noted by foregoing research that women were more concerned about the environment than men (Murphy et al. 1978). It has also been stated that consumers express environmental responsibilities based on product characteristics, accuracy of green product claims, information provided on the products and its benefits (Forkink 2010; Luchs et al. 2010). Barr and Gilg (2006) found that committed individuals or mainstream environmentalists skewed and put forward a higher importance on environmental issues where they develop a high level of concern and express a personal responsibility and moral obligation to play their role to help the environment. By clearly communicating the benefits of a product on the packaging or in advertising, negative perceptions towards an environmentally friendly product's effectiveness i.e., their environmental concerns can be surmounted (Luchs et al. 2010).

Between 1980 and 1990, a trend in “green products” appeared, and this type of niche products occupied a distinct place in the market. But only at the beginning of the 21st century, marked with global warming and natural resource depletion, “green” started influencing the practices of product manufacturers (Air Quality Sciences, 2010). A green product refers to a product that is typically nontoxic, originally grown, recycle/reusable, not tested on animals, not polluting the environment and minimally packaged; and contains natural ingredients, recycled content and approved chemicals (Ottman 1998; Pavan 2010). (Sandu, R 2014) agree with the fact that the green product is designed to minimize its environmental impacts during its whole life-cycle. Nonrenewable resource use is minimized, toxic materials are avoided and renewable resource use takes place in accordance with their rate of replenishment.

Price is the attribute that consumers reflect on when making a green-purchasing decision. Consumers are less likely to purchase green products if they are more expensive (Blend and van Ravenswaay 1999; D'Souza et al. 2006). However, there were a group of environmentally conscious consumers, i.e., more than 80 percent of Thai, Malaysian and Korean consumers from the emerging markets in the region, who are willing to pay premium price to purchase environmental products (Dunlap and Scarce 1991; Lung 2010). D'Souza et al. (2006) noted that all products offered should be environmentally safe without a need to trade off quality and/or pay premium prices for them.

Consumer behavior is mostly influenced by several internal (demographic) and external factors (product and market), an extensive literature survey has been made to study the consumer behavior with regards to green products. Banumathi Mannarswamy (2011) outlined that consumer's preferences are changing with changing the requirements of the environment. In another study, Hossein Ataei, Farnaz Taherkhani (2015), studied the consumer behavior towards purchasing green products and investigated the consumer price sensitivity standpoint. The experimental study among Canadian consumers identified that most consumers see added value in eco-friendly products to energy efficient products rather than products

with social and environmental benefits. The study also found consumer behavior differs between low-end household products and expensive products like electronics and appliances. Ming-Feng (2011) stated in his dissertation report about the consumers increasing attention towards environmental deterioration and began green consumption to reduce environment pollution. The study included factors like consumer's environmental knowledge, attitude, awareness and purchase intentions and observed that the environmental label information awareness has a moderating effect between the environmental attitude and environmental purchase intention. Yogita Sharma (2011) contributed with a paper regarding the changing's in the consumer behavior towards green products. Her study observed an increasing trend in awareness of green products in consumers and green consumers are influencing most products with improvement in environmental information through eco-labeling, consumer groups and consumer guides. Companies are gaining competitive advantage by integrating green strategies into their operational and marketing activities (Padmaja & Mohan 2016).

Since 1990, The Natural Marketing Institute (NMI), a leading business consultant and marketing research firm, has been doing research in segmenting green consumers. (Molyneaux, 2007). Awakened by the severity of environmental deterioration, consumers are gradually changing their attitude, behaviour and approach in matters of consumption (Biswas and Roy, 2014). Thus, the green consumers are targeted by the companies. The heightened awareness and changing preferences of consumers is also a driving force that is necessitating the transformation for businesses to become better environmental stewards (Olson, 2009). Because of the increasing number of green consumers, marketers are targeting the green segment of the population (Mostafa, 2009).

3. METHODOLOGY

This is the explanatory research study based on the survey method which measures the consumer usage of plastics, consumer environmental responsibility and awareness of green products among the consumers in Muscat city. Convenience sampling is being used to collect data from various shopping malls and retail outlets where the large number of consumer pooled together. The major instrument for collecting data is the questionnaire. The questionnaire was developed under 5 categories. The first category is demographic variables; the remaining categories are about usage of Plastic Products, Consumer Environmental responsibility, Awareness of Green Product and Consumers' Decision. Statistical Software Package for Social Scientists (SPSS) has been used for the reliability test (Cronbach's alpha) and results were obtained. Descriptive analysis including frequencies is used to study the sample characteristics. T test, Paired comparison test and linear regression are being used to determine the extent to which the different factors of Green consumption.

3.1 Research Instrument and its Reliability

The major instrument for collecting data is the questionnaire. The questionnaire was developed under 5 categories as mentioned in the earlier section. The questionnaire was submitted to the experts in the field of Management for getting feedback. Based on their feedback minor changes has been made on the questionnaire and distributed to few sample population for the pilot study and the reliability was calculated with the help of cronbach alpha (Hair et al., 1998). The Cronbach alpha for the variables is evident that the questionnaire is reliable ($\alpha = 0.780$) meet the acceptable criteria of cronbach alpha ($\alpha > 0.60$). No such item is deleted as the alpha value of green consumption items is not that much low that will create problem in the generalizability of the questionnaire (Hair et al., 1998). The questionnaire against the reliability measure found to be excellent (George and Mallery, 2003).

3.2 Sampling

The survey population of this study consists of common public in Muscat city, Sultanate of Oman. Convenience sampling method was used to draw 250 samples from consumers in Muscat City. The respondents were clearly explained about the purpose of this research before collecting data. At the final stage, 205 questionnaires, which consist of the measurement, was distributed among consumers who visited shopping malls and various retail outlets in Muscat city, Sultanate of Oman. Due to some limitations, the sample size was 180 customers, but accuracy is not compromised, all the samples were thoroughly evaluated and on the other hand it was found that there were few errors in 18 samples; they were not valid, so it got removed and finally 162 samples were taken for the final analysis.

4. RESULTS & DISCUSSION

The data that was collected for this study was processed manually through coding and then entered electronically. The Microsoft Excel and Statistical package for Social Sciences (SPSS) were used for the analysis. The use of statistical distributions such as tables showing frequencies and percentages were adopted in the study. The weighted average method

was adopted for awareness of green product. The hypotheses stated in the study were analyzed with the help of T Test, Linear regression, Paired comparison Test.

4.1 Descriptive Analysis

Table 1 Demographical Data

Description		Frequency	Percentage
Gender	Male	100	62
	Female	62	38
Age	21 – 25	08	05
	26 – 30	14	09
	31 – 35	37	23
	36 – 40	60	37
	Above 41	43	26
	Graduate	37	23
Education	Diploma	23	14
	Higher Education	23	14
	Primary	41	25
	No Education	38	24
	Student	05	03
Occupation	Own Business	38	24
	Private Employee	46	28
	House Wife	06	04
	Government	67	41
	Employee		

Table 1 presents the demographics data based on age, gender, education and occupation of respondents with their description range and frequency. The analysis reveals that majority of the respondents 62% were male and the remaining 38% were female. In respect to the age of the respondents, 37% of them fall between the age bar of 36 to 40 and the next high frequency 23 % between 31 to 35 years. In the education categorization, the current work experiences of the respondents were analyzed and it was found that 25% of respondent were having primary education. It is also evident that 24% of the respondents were not educated and 23% of the respondents have graduated. In respect to occupation, 28% of the respondents were working in private section and 24% of them owe their own business and 41% of the respondents were government employees which is high in terms of their employment. Very few entries were seen in house wife and student category.

4.2 Usage of Plastic Products

Table 2 Frequency of using plastics

S.No	Frequency of using plastics	No of Respondent	Percentage
1.	Always	64	40
2.	Most of the times	50	31
3.	Sometimes	48	29
4.	Seldom	00	00
5.	Never	00	00
	Total	162	100

It is evident from Table 2 that 40% of the respondents agree that they always use plastic products every day and 31% of them use plastic most of the times and remaining 29% of them use plastic sometimes, from the analysis it is clear evident that all the respondents were using plastic irrespective of their age or gender or their education and occupation.

Table 3 Obtain your plastic products

S.No	Obtain your plastic products	No of Respondent	Percentage
1.	Buying from shops for own use	33	20
2.	From shopping at shops	97	60
3.	During Bruneian functions	32	20
	Total	162	100

Table 3 provide a clear picture that 60% of the respondent get the plastic products from the shops during their shopping and the remaining get for their personal use and from other functions.

Table 4 Think most plastic products is used

S.No	Think most plastic products is used	No of Respondent	Percentage
1.	Supermarkets	49	30
2.	Hypermarkets	49	30
3.	Convenience Store	32	20
4.	Markets	16	10
5.	Garbage Disposal	16	10
	Total	162	100

From the table 4, it is evident that the respondent agrees that most of the plastic products is being used at super market 30% and hyper market which is also 30% and 20% from convenience stores.

Table 5 Plastic products do you use excessively

S.No	Plastic products do you use excessively	No of Respondent	Percentage
1.	Plastic bags	98	60
2.	Plastic liquid containers (bottles)	32	20
3.	Plastic buckets, bins and barrels (Water)	32	20
4.	Plastic packing materials	00	00
	Total	162	100

Table 5 provides a clear picture that 60% of the respondents use plastic bags when compared to plastic bottle 20% and plastic buckets 20%. It is evident that plastic bag is at most usage by all the respondents.

Table 6 Do with plastic products

S.No	Do with plastic products	No of Respondent	Percentage
1.	Reuse for rubbish bin	81	50
2.	Reuse for shopping	17	11
3.	Reuse for storing and carrying things	16	10
4.	Throw away	48	29
	Total	162	100

From Table 6 it is evident that 50% of the respondents reuse the plastic bags for rubbish bin and 29% of them throw away without any reuse.

Table 7 Reason to prefer plastic product(s) especially plastic bags

S.No	Reason to prefer plastic products	No of Respondent	Percentage
1.	Cheap	65	40
2.	Light in weight	17	11
3.	Easily available	48	29
4.	Lack of alternative materials	16	10
5.	Lack of awareness of the green products	16	10
	Total	162	100

From Table 7, it is inferred that the consumer use plastic bags because it was available at a cheaper cost and 29% of them told that it is easily available in the market and very few 10% of the consumer agree that there is lack of awareness of the green product. So, the green product awareness needs to be improved a lot in the minds of the consumer.

4.3 Consumers' Environmental Responsibility

Table 8 Think that plastic bag wastes cause problems

S.No	Plastic bag wastes cause problems	No of Respondent	Percentage
1.	Yes	62	38
2.	No	63	39
3.	No idea	37	23
	Total	162	100

Table 8 provides a picture that 39% of the consumer does not aware of that the plastic bag waste causes many problems to the environment and at the same time 38% of them had awareness of the problems.

Table 9 Aware of the problems of using plastic products

S.No	Aware of the problems of using plastic products	No of Respondent	Percentage
1.	Yes	12	07
2.	No	89	55
3.	No idea	61	38
	Total	162	100

From the table 9, it is inferred that 55% of the consumer are not aware of the problems of using plastic products and 38% of them don't have any idea about the problem of using plastic products. This shows that there is lack of awareness among the consumers.

Table 10 Think that the environmental issues are emergency issues

S.No	Environmental issues are emergency issues	No of Respondent	Percentage
1.	Yes	61	38
2.	No	40	24
3.	No idea	61	38
	Total	162	100

Table 10 provides a picture that 38% of the consumer agree that environmental issues are emergency issues in today's scenario and at the same time another 38% of the consumer have no idea about the environmental issues, again it emphasis there needs a low of awareness among the consumer about the environmental issues.

Table 11 Environmental issues are consumer's responsibility

S.No	Environmental issues are consumer's responsibility	No of Respondent	Percentage
1.	Strongly Agree	61	38
2.	Agree	49	30
3.	Neutral	40	25
4.	Disagree	12	07
5.	Strongly disagree	00	00
	Total	162	100

Table 11 convey that 38% of the consumer strongly agree that environmental issues are consumer's responsibility followed by 30% of them agree. Still 25% of the consumer are neutral about their responsibility and very less consumer 7% disagree with the statement.

Table 12 Problems caused from using plastic products

S.No	Problems caused from using plastic products	No of Respondent	Percentage
1.	Human health problem	74	46
2.	Blockage of sewage (drain) systems	12	07
3.	Deterioration of natural beauty of environment	76	47
	Total	162	100

From the table 12, it is found that 47% of the consumer felt that plastic will deterioration of natural beauty of environment and 46% of them felt that plastic will lead to some human health issues.

Table 13 Spread the awareness of the green products

S.No	Spread the awareness of the green products	No of Respondent	Percentage
1.	Highly important	89	55
2.	Important	25	16
3.	Neither important nor not important	12	07
4.	Not important	24	15
5.	Highly not important	12	07
	Total	162	100

Table 13 provide a clear picture that the 55% of consume feel that spreading the awareness of the green product is necessary and highly important followed by 16% feel it is important, still around 22% of them felt that it is not important, which needs to be changed in the minds of the consumer.

Table 14 Awareness of Green Product

S.No	Opinion	SA 5	A 4	N 3	SDA 2	DA 1	Score	Avg	Rank
1.	Companies should produce & make available some environmental friendly product	86	50	21	05	00	703	7.73	3
2.	If consumer prefer and use green products, the production of green product will increase	59	70	33	00	00	674	7.41	5
3.	Green product usually comes smaller but higher in price	101	49	12	00	00	737	8.10	1
4.	By buying a green product, indirectly influence the environmental protection	98	53	11	00	00	735	8.08	2
5.	Likely to buy green product that are packed eco-friendly and recycled	65	76	21	00	00	692	7.60	4
6.	I am willing to pay more for environmentally friendly product	11	60	60	31	00	537	5.90	6

From the weighted average analysis (Table 14) it was found that Green product usually comes smaller but higher in price was ranked first followed by buying a green product, indirectly influence the environmental protection and the third was Companies should produce & make available some environmental friendly product.

4.4 Consumers' Decision

Table 15 The utilization of plastic products

S.No	The utilization of plastic	No of Respondent	Percentage
1.	May be continued	69	43
2.	May be discontinued	65	40
3.	Neither continue nor discontinue	28	17
	Total	162	100

Table 15 shows that 43% of the consumer state that they will continue their usage of plastic and 40% of them agreed to discontinue the usage.

Table 16 Alternative product

S.No	Alternative product	No of Respondent	Percentage
1.	Paper products	58	36
2.	Fiber products	71	44
3.	Cloth products	33	20
	Total	162	100

From table 16, it is evident that 44% of the consumer felt that they can use fiber product as a replacement of plastic products and 36% of the consumer felt that they can start use paper products and the remaining 20% of them felt that cloth products will be the alternative product.

Table 17 Initiatives for promoting green product practices

S.No	Initiatives through	No of Respondent	Percentage
1.	People	28	17
2.	Municipality	48	30
3.	Ministry	69	43
4.	Business Organizations	17	10
	Total	162	100

Table 17 provides a clear picture that 43% of the consumer felt that ministry should take steps for promoting green product so that all the people will get proper awareness and followed by 30% of them suggesting that municipality will take necessary steps to promote green products.

Table 18 Law and Regulations an effective way of forcing people to buy green products

S.No	Law to forcing people	No of Respondent	Percentage
1.	Strongly Agree	32	20
2.	Agree	63	39
3.	Neutral	48	30
4.	Disagree	19	11
5.	Strongly disagree	00	00
	Total	162	100

From table 18, it is inferred that 59% of the consumer agree that law and regulation will be an effective way of forcing people to use green product, so it is very important to bring a law on the usage of green product and reduce the use of plastic product.

Table 19 Create the exposure to the community

S.No	Create the exposure	No of Respondent	Percentage
1.	Radio	20	12
2.	TV	56	35
3.	Social Media	38	24
4.	Newspaper	29	18
5.	Magazine	19	11
	Total	162	100

Table 19 provides how to create the exposure to community with respect to green products; the consumer felt that TV 35% and Social media 24% will be the largest source to create the exposure to the community about the green product.

Table 20 Usage of green products help in the betterment of the environment

S.No	Green products	No of Respondent	Percentage
1.	Strongly Agree	95	59
2.	Agree	54	33
3.	Neutral	13	08
4.	Disagree	00	00
5.	Strongly disagree	00	00
	Total	162	100

From the table 20, it is inferred that the 92% of the consumer agree that usage of green products helps in the betterment of the environment, which shows that the people of Oman has concern about the environment which is a healthy and positive approach.

Table 21 Strategy to reduce the usage of plastics

S.No	Strategy to reduce the usage	No of Respondent	Percentage
1.	People should dispose	27	17
2.	People should reject	38	23
3.	Shops should stop	17	10
4.	Shops should use other bags	22	14
5.	A law should be passed	31	19
6.	Awareness should create	27	17
	Total	162	100

Table 21 states the strategy to reduce the usage of plastic product, various strategy was stated by the consumer and 23% of them agree that people should themselves rejects the plastics and 19% felt that there needs a law of reducing the usage of plastic followed by awareness creation 17% and dispose of plastic by 17%.

4.5 Statistical Analysis

T.Test was used to find the significance difference between Gender and usage of plastic products

Table 22 Group Statistics

	GENDER	N	Mean	Std. Deviation	Std. Error Mean
U5	Female	62	2.02	1.261	.160
	Male	100	2.31	1.360	.137

Table 23 Independent Samples Test

		Levene's Test for Equality of Variances						t-test for Equality of Means		95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
U5	Equal variances assumed	6.318	.013	-1.386	159	.168	-.30	.214		-.720	.126
	Equal variances not assumed			-1.411	137.007	.161	-.30	.211		-.713	.119

At Sig. (2-tailed) P value > 0.05, F value is > 0.5. So, there is a significant difference between the group's i.e Gender (Male, Female) in use of plastic products. It is clear that the all gender use plastic products.

Linear regression model was used to understand the extent to which there is a linear relationship between a usage of plastic (dependent variable) and Media exposure towards plastic bags (independent variables).

Table 24 Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	CD23(a)	.	Enter

a All requested variables entered.

b Dependent Variable: U4

Table 25 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.206(a)	.043	.037	.785

a Predictors: (Constant), CD23

This table provides the R and R^2 values. The R value represents the simple correlation and is 0.206 (the "**R**" Column), which indicates a high degree of correlation. The R^2 value (the "**R Square**" column) indicates how much of the total variation in the dependent variable, usage of plastics, can be explained by the independent variable, media exposure towards plastic. In this case, 43% can be explained, which is acceptable.

The next table is the **ANOVA** table, which reports how well the regression equation fits the data (i.e., predicts the dependent variable) and is shown below:

Table 26 ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.393	1	4.393	7.120	.008(a)
	Residual	98.718	160	.617		
	Total	103.111	161			

a Predictors: (Constant), CD23 b Dependent Variable: U4

This table indicates that the regression model predicts the dependent variable significantly well. This indicates the statistical significance of the regression model that was run. Here, $p > 0.005$, which is greater than 0.05, and indicates that, overall, the regression model not statistically significantly predicts the outcome variable.

The **Coefficients** table provides us with the necessary information to predict usage of plastic and media exposure to usage of plastic, as well as determine whether income contributes statistically significantly to the model (by looking at the "**Sig.**" column). Furthermore, we can use the values in the "**B**" column under the "**Unstandardized Coefficients**" column, as shown below:

Table 27 Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.208	.157		7.694	.000
	CD23	.136	.051	.206	2.668	.008

a Dependent Variable: U4

$$\text{Usage of Plastic} = 1 + 0.051 (\text{Media Exposure})$$

Interpretation:

The R^2 value (the "**R Square**" column) indicates how much of the total variation in the dependent variable. This indicates the statistical significance of the regression model that was run. Here, $p > 0.0005$, and indicates that, overall, the regression model statistically significantly can't predict the outcome variable.

Paired comparison Test was conducted with media can create the exposure to the community to get information about plastic bag wastes and initiative for promoting green product

Table 28 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CD21	2.46	162	.900	.071
	CD23	2.82	162	1.210	.095

Table 29 Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	CD21 & CD23	162	.048	.544

Table 29 Paired Samples Test

		Paired Differences						Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	
CD21 - CD23	-.36	1.473	.116	-.59	-.13	-3.094	161	.002

It is analyzed that, P i.e., $p < .05$) It can be concluded that there is a statistically significant difference between our two variable scores i.e Initiatives for promoting green product practices and Media exposure to community about plastic products wastes.

5. IMPLICATION

This research examines the influence of consumers' environmental responsibility toward green consumption and awareness about green products. Many companies have yet to capitalize on their environmental efforts (Mohr, Webb, & Harris, 2001). Marketers should emphasis on providing clear information about green products and eco-labels to promote consumer familiarization with products and enhance their knowledge of green products. Attractive green product message contents should be aggressively developed that would stimulate interest among the consumer in Oman. Marketers can come up with new green products and communicate the benefits to the consumers. Due to increased awareness and concern consumer may prefer green products over conventional products to protect the environment. Concerns were more directed towards depletion of Ozone and Global Warming. (Bhatia & Jain, 2013)

Consumers' level of awareness about green products and the environmental responsibility are found to be medium but at the same time consumers are not aware about green initiatives undertaken by Ministry, Municipality and other non-government agencies signifying need for more efforts from organizations in this regard. TV and social media remains leading source of information for most of the respondents and should be utilized more for reaching out to the consumers regarding green products and practices. (Norazah Mohd. Suki, 2013) Consumers have shown positive attitude towards green products at the same time they are concerned with the availability and price of such products. This implies that Marketers should make the green products available to the consumers for their consumption as customers have shown willingness to buy green products if it is available. As consumers consider the ill effects of manufacturing and consumption on natural environment, they may purchase the green product if marketers can make them aware about the benefits of the green products (Bhatia & Jain, 2013). Level of education does not show a strong influence on consumers' environmental actions as compared to age, gender or residence (Frey Meyer and Johnson 2010).

Ministry and Municipality are a strong predictor (Punitha and Rahman 2011) that plays an important role in encouraging consumers to go green and embrace green purchasing behaviour. This research adds support to previous research, offering a theoretical basis for understanding that the consumers' environmental responsibilities towards green consumption and awareness of green product. Thus, the results of this study offer a new forward motion to the findings of earlier studies on green awareness and green consumption buying behaviour in Sultanate of Oman. The discussion implies that green marketing strategies must not only aim to influence individual beliefs toward green consumption but the entire social structure surrounding the target market(s). Further, these strategies must do so in ways which emphasize the positive impacts of individual green consumer behavior (Gabler, Butler & Adams, 2013). The study has implications for marketers as well as consumers and makes a good cause for start of an era of green marketing in Sultanate of Oman. The study since focused on a limited geographical area has limited generalizability but provides good insights regarding behavior of consumers towards

green products. Future research could focus on psychographic segmentation of consumers in terms of assessing their green values and preferences. The study can be replicated at a larger scale to get more insights into the behavior of consumers and understand more about green phenomenon (Bhatia & Jain, 2013).

6. LIMITATIONS

The present study has several limitations. The first limitation for this research is that it is mainly conducted (survey) in the Muscat City. The location is chosen because the researcher can find more consumers in the Muscat city and the area has the largest number of diversified consumer in terms of age, educational level. The second limitations are that this research employed convenience sampling to accomplish the research objectives. The limitations associated with the convenience sampling are applicable for this study. The sample size is yet another limitation to this study, the sample size is not enough to represent all the population of Oman. Maybe in future there is a possibility of going an intensive research.

7. CONCLUSION

The efforts made to eliminate the risk of plastic bags could not have come at a better time. First, these efforts are an indication of the awareness for the concept of “environmental responsibility”, which is part and parcel of the social responsibility that contributes, without question, in raising the level of awareness of the negative (harmful) impacts of plastic. Secondly, these efforts support the implementation of standards known as “environmental conditions” that aim at protecting our environment against pollution and preserving its natural resources against overexploitation. Thirdly, these efforts redirect the millions of dollars spent by both government and private corporates on the disposal of plastic waste, to implementing new environmental projects and supporting scientific research that looks for advanced methods for eliminating the risks of plastic waste on human health and the surrounding environment. We must also point out the importance of creating an integrated system for the management of plastic waste in the Arab region. This can be achieved through providing a technological structure that depends on eco-friendly plastic manufacturing and safe disposal of its waste.

REFERENCES

- Air Quality Sciences, Inc. 2010, Defining green products, 1-21
- Barr, S. and Gilg, A. 2006, Sustainable Lifestyles: Framing Environmental Action in and Around the Home. *Geoforum* 37: 906–920.
- Biswas, A., Roy, M., 2014, Green products: an exploratory study on the consumer behaviour in emerging economies of the East, *Journal of Cleaner Production* 1-6
- Bhatia, M., & Jain, A 2013, 'Green Marketing: A Study of Consumer Perception and Preferences in India', *Electronic Green Journal*, 1, 36, pp. 1-19
- Blend, J. R. and van Ravenswaay, E. O. 1999, Measuring Consumer Demand for Eco labeled Apples. *American Journal of Agriculture Economics* 81(5): 1072–1077.
- Dunlap, R. and Scarce, R. 1991, Environmental Problems and Protections, *Public Opinion Quarterly* 55: 651–672.
- D'Souza et al. 2006, Green Products and Corporate Strategy: An Empirical Investigation. *Society and Business Review* 1(2): 144–157.
- Frey Meyer, R. H. and Johnson, B. E. 2010, A Cross-Cultural Investigation of Factors Influencing Environmental Actions. *Sociological Spectrum* 30(2): 184–195.
- Forkink, A. 2010, Perception, Awareness, and Acceptance of Green Kitchen Cleaners: Go Green Market Research. Online report, [http:// www.greenbook.org /Content /GoGreen /Green_Cleaners_report.pdf](http://www.greenbook.org/Content/GoGreen/Green_Cleaners_report.pdf)
- Gabler, C, Butler, T, & Adams, F 2013, 'The environmental belief-behaviour gap: Exploring barriers to green consumerism', *Journal Of Customer Behaviour*, 12, 2/3, pp. 159-176
- George, D. and P. Mallery, 2003, *SPSS for Windows Step by Step: A Simple Guide and Reference*. 11.0 update. 4th Edn., Allyn and Bacon, Boston.
- Hair, J.F., Tatham, R.L., Anderson R.E, Black, W. 1998, *Multivariate Data Analysis*, 4th Edition, Prentice Hall Inc., New Jersey, USA.
- Luchs, M. G. et al. 2010, The Sustainability Liability: Potential Negative Effects of Ethicality on Product Preference. *Journal of Marketing* 74: 18–31.
- Mohamed M. Mostafa. 2009, Shades of green: A psychographic segmentation of the green consumer in Kuwait using self-organizing maps. *Expert Systems with Applications* 36, 11030–11038

- Mohr, L.A., Webb, D.J., & Harris, K.E. 2001, Do consumers expect companies to be socially responsible?, The impact of corporate social responsibility on buying behavior, *Journal of Consumer Affairs*, 35(1), 45-72.
- Molyneaux, M. 2007, Health and wellness trends and those specific to personal care, Harleysville, PA: The Natural Marketing Institute
- Murphy, P. E., Kangun, N. and Locander, W. B. 1978, Environmentally Concerned Consumers - Racial Variations, *Journal of Marketing* 42: 61–66.
- Norazah Mohd. Suki, 2013, “Green Awareness Effects on Consumers' Purchasing Decision: Some Insights”, *International Journal of Asia Pacific Studies*, Vol. 9, No. 2, PP 49 – 63
- Olson, E. G. 2009, Business as environmental steward: the growth of greening. *Journal of Business Strategy*, 30 (5), 4-13
- Ottman, J. A. 1993. *Green Marketing: Challenges and Opportunities*. Chicago: NTC Business Books.
- Padmaja, P, & Mohan, V 2016, 'A Study on Consumer Perspective towards Green Products in Bengaluru City, India', *Journal Of Economics & Business Research*, 22, 1, pp. 137-151
- Pavan, M. P. S. 2010, Green Marketing in India: Emerging Opportunities and Challenges. *Journal of Engineering, Science and Management Education* 3: 9–14.
- Punitha, S. and Rahman, A. A. 2011, Antecedents of Green Purchasing Behavior among Malaysian Consumers, *International Business Management* 5(3): 129–139.
- Ruban, A., 2012, “Life Cycle Assessment of Plastic Bag Production”, Uppsala University
- Sandu, R 2014, 'Green: Marketing, Products and Consumers', *SEA: Practical Application Of Science*, 2, 3, pp. 555-561
- Shrum, L., McCarty, J. and Lowrey, T. 1995, Buyer Characteristics of the Green Consumer and their Implications for Advertising Strategy, *Journal of Advertising* 24(2): 71–82.
- The World Counts, 2015
- Williamson LJ 2003, It's Not My Bag, Baby. *On Earth: Environmental Politics People*, 25(2): 32-34.
- Yahya Al Salmani, 2013, I'm Not a Plastic Bag, *Oman Observer daily*