

Big Five Personality Traits and Green Purchasing Behavior in Iranian Market

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Abstract— This research aims to find how big five personality traits (extraversion, agreeableness, openness to experience, conscientiousness, and neuroticism) affect green purchasing behavior in Iranian market. In this regard, 21 hypermarkets in the five big cities of Iran were studied. 350 questionnaires were distributed, but 312 of them were usable for multiple regression analysis. The results showed that all personality traits have significant and positive effect on green purchasing behavior.

Keywords— Extraversion, Agreeableness, Openness to experience, Conscientiousness, Neuroticism, Green purchasing behavior

I. INTRODUCTION

Nowadays, more than any time people concern about environment. That's why green purchasing behaviour can be considered as a hot topic in marketing management. In general green purchasing/ buying behavior can refer to the purchase of environmentally friendly products. In other words, the purchase of sustainable products those usually are recyclable and beneficial to the environment. At same time, the green purchasing behaviors avoids buying such

products which harm the society and environment. (Amoako et al., 2020; Ali et al., 2020) There are various research about influential factors on purchasing behavior. However, this research concentrated on personality factors. Out of enormous research, the big five personality traits demonstrates personality details properly. The big five personality traits is a grouping for personality traits based on the psychological traits theory. The outcome of the work of different scholars (e.g. Bueker et al., 2020; Chaturvedi et al., 2020; Komarraju and Karau, 2005) specify five dimensions to describe the human temperament, personality, and psyche. The five identified factors by theory are as follow:

- Extraversion
- Agreeableness
- Openness to experience
- Conscientiousness
- Neuroticism

Iran as a developing country like many other countries has to find out how much its market can be affected by green product. In this regard it is important to know how personality traits of customer can affect green purchasing behaviors. Hence, this study aims to find how big five

personality traits affect green purchasing behavior in Iran.

II. Hypotheses Development

Extraversion/extroversion is the one of the big five personality traits and refers to sociability, assertiveness, talkativeness, and excitability.

People with higher level of extraversion usually seek out opportunities and social stimulation to engage with others. They are usually full of life, positivity, and energy. {McCabe and Fleeson, 2012}

It is clear that that extraverted people can be stimulated or informed by other people and society. Hence, they have more potential to be a green purchaser because green purchasing behavior is a positive behavior and nowadays many people talk about green behavior, environment, and sustainability. The first hypothesis of this study can be developed as follow:

H1: Extraversion can affect green purchasing behavior positively

In general agreeableness can be described by several dimensions including, affection, trust, kindness, altruism, and other prosocial behavior. (Weisberg et al., 2011) .People with higher level in agreeableness are more cooperative while people are low in agreeableness tend to be competitive and sometimes manipulative. Based on the mentioned of the dimensions of agreeableness, we can conclude that agreeableness can affect purchasing behavior. So, the second hypothesis of study will be:

H2: Agreeableness can affect green purchasing behavior positively

Openness/openness to experience denotes receptivity to new ideas and experiences. People who are high in openness usually tend to seek out a variety of experiences. In other words, they are comfortable with the unfamiliar, and like to pay attention to their inner feelings more than individuals who are less open to the novelty.

Clearly, they have more levels of curiosity. Green purchasing behavior can be considered as a new experience for customers. Thus, the next hypothesis can be developed as follow:

H3: Openness can affect green purchasing behavior positively

Someone is conscientious if he/she is able to exercise self discipline and self control to pursue and ultimately achieve his/her goals. In general being conscientious equals to being organized, principled, responsible, forward-thinking, persistent, and goal oriented.

In organization, employees who are conscientious are often more committed, reliable, and productive. There are many evidences that show that higher conscientiousness implies higher income (Martin et al., 2007) .However, a conscientious person cannot be careless to the society and green environment. Therefore, the fourth hypothesis will be:

H4: Conscientiousness can affect green purchasing behavior positively

Extant research (Holmström, 2015; Bamberg & Möser, 2007; Gardner & Stern, 2002) have described neuroticism by five dimensions such as anxiety, angry-hostility, self- conscientious, impulsiveness, and vulnerability. People with higher level of neuroticism usually are more concentrated on negative outcomes. In other words, they concern about negative outcomes more than negative outcomes. They often pay attention to possible threats. We can say that people with higher level of neuroticism pay more attention to environment, but at same time this trait may push to not try green product.

H5: Neuroticism can affect green purchasing behavior positively

III. Data Analysis and Results

To test above hypotheses, this study distributed 350 questionnaires in 21 big hypermarkets located in Tehran, Shiraz, Isfahan, Tabriz, and Mashahd, but 312 of them were usable for data analysis. This survey was done during Dec 2020 to May 2021. The questionnaire was designed based on the definition of each variable. Table1 shows the item of the questionnaire.

Table1: Items of Questionnaire

Green Purchasing Behaviour	Buying green products Suggesting to friends and family Repeating purchase Purchasing green products even the price is more expensive
Extraversion	Sociability Assertiveness Talkativeness Excitability
Agreeableness	Affection Trust Kindness Altruism, Other prosocial behavior
Openness to experience	Like to try new things Impressed by novelty Seeking out new things Open to other people suggestion
Conscientiousness	Organized and principled Responsible Forward-thinking Persistent Goal oriented
Neuroticism	Anxiety Angry-hostility Self- conscientious, Impulsiveness Vulnerability

Beside of the mentioned items of the Table1, some demographic questions were asked. Table 2 shows the demographic information of respondents of the study.

Table2: Demographics

		Number	Percentage
Gender	Male	175	56
	Female	137	44
Age	Less than 18	45	14.5
	18 -30	72	23.1
	31-40	55	17
	41-50	57	18.2
	Greater than 50	83	26.5
Monthly Income	Less than \$200	47	15.1
	\$201- \$500	87	37.8
	\$501- \$1000	48	15.3
	More than \$1001	47	15.1
Education	Diploma or lower	177	57
	Bachelor	78	25
	Master or higher	57	18

The reliability test was done by Cronbach's Alpha. The results showed that all values are greater than 0.7. In other words, all values are acceptable (According to the Nunally, 1978).The next test was Pearson Correlation. This test shows the relationship between all variables. According to the Table 3 all variables have significant relationship with each other because all p-values were less than .05. However, only the relationship are presented in this table. It should be mentioned that the range of Pearson correlation varies between -1 to +1.

Table3: Pearson Correlation Test

	1	2	3	4	5	6
<i>1.Green Purchasing Behavior</i>	1					
<i>2.Extraversion</i>	.571	1				
<i>3.Agreeableness</i>	.541	.235	1			
<i>4.Openness to experience</i>	.441	.167	.345	1		
<i>5.Conscientiousness</i>	.347	.331	.265	.254	1	
<i>6.Neuroticism</i>	.240	.246	.220	.216	.266	1

Out of big five personality traits, the highest correlation with green purchasing behavior refers to extraversion while the lowest value refers to neuroticism. The next analysis was multiple regression analysis. Table.4 shows the results of multiple regression analysis.

Table4: Multiple Regression Analysis

R Square = .701 F = 171.35 P-value of ANOVA= .000 Constant= .017					
Impacts	P-value	Standardized Coefficient	VIF	Hypothesis	Supported
Extraversion on Green Purchasing Behavior	0.000	.211	1.2	H1	Yes
Agreeableness on Green Purchasing Behavior	0.000	.171	1.3	H2	Yes
Openness to experience on Green Purchasing Behavior	0.000	.126	1.4	H3	Yes
Conscientiousness on Green Purchasing Behavior	0.000	.206	1.07	H4	Yes
Neuroticism on Green Purchasing Behavior	0.001	1.01	1.15	H5	Yes

As shown in the Table4, r square is equal to .701. It means that 70.1% of variation of green

purchasing behavior can be accounted by big five personality traits.

According to the Table4, all p-values are less than .05. Hence, we are 95 percent confident that all traits have significant impact on green purchasing behavior. So, all hypotheses are accepted by this research. Consequently, the regression equation can be written as follow:

$$\text{Green Purchasing behavior} = .017 + .211 \text{ Extraversion} + .171 \text{ Agreeableness} + .126 \text{ Openness} + .206 \text{ Conscientiousness} + 1.01 \text{ Neuroticism}$$

Hence the highest impact refers to extraversion while the lowest impact refers to Neuroticism.

IV. Conclusion

One of the hottest topics of these days is sustainability and green environment. In this regard, many companies are trying to produce green products in reasonable prices. On the other hand, it is important to know how customers can be motivated to consume these products. Some parts of customer purchasing behavior can be originated from their personality traits. So this study tried to analyze the impacts of big five personality traits. According to the results of multiple regression analysis all big five personality traits have significant influences on green purchasing behaviors of customers.

Future studies can focus on other factors may affect green purchasing behavior considering big five personality traits as a moderator. Furthermore, the framework/hypotheses of this study can be tested in other industries or countries.

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