

**T.C.**  
**ISTANBUL AYDIN UNIVERSITY**  
**INSTITUTE OF GRADUATE STUDIES**



**FACTORS AFFECTING GREEN PURCHASE INTENTION FOR  
CONSUMERS IN THE MODERATION EFFECT OF PRICE SENSITIVITY**

**MASTER'S THESIS**

**Haneen Waleed Arif ARIF**

**Department of Business**  
**Business Administration Program**

**Thesis Advisor: Assist. Prof. Dr. Müge ÖRS**

**November, 2019**

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## ONAY FORMU

T.C.  
İSTANBUL AYDIN ÜNİVERSİTESİ  
LİSANSÜSTÜ EĞİTİM ENSTİTÜSÜ MÜDÜRLÜĞÜ



### YÜKSEK LİSANS TEZ ONAY FORMU

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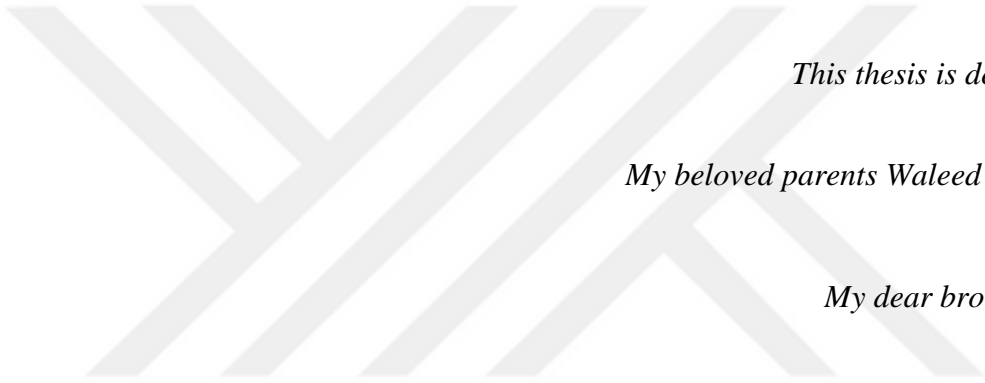
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## **DECLARATION**

I hereby declare that all information in this thesis document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results, which are not original to this thesis.

**Haneen Waleed Arif ARIF**





*This thesis is dedicated to:*

*My beloved parents Waleed and Nidhal*

*&*

*My dear brother Ahmed*

## **FOREWORD**

As being the author of this paper, I would like to express my sincere thanks and gratitude to my special supervisor Dr. Müge Örs for her endless support, help and guidance in order to make this research paper be possible, in which we decided to choose this special subject to come out with a new and unique content wishing to be useful for the next related researches and to the new generations. That would not be possible without all the support and love of my beloved mom and dad and my brother. I am also grateful to all the faculty members that have taught me valuable lessons during the entire coursework. I would also like to thank each and every friend of mine for helping me or giving me a piece of advice even if it was one word, it made the difference and gave me the key to complete this research paper. Thank you all.

**November, 2019**

**Haneen Waleed Arif ARIF**

## TABLE OF CONTENT

	<u>Page</u>
<b>ONAY FORMU</b> .....	<b>ii</b>
<b>DECLARATION</b> .....	<b>iii</b>
<b>FOREWORD</b> .....	<b>v</b>
<b>TABLE OF CONTENT</b> .....	<b>vi</b>
<b>ABBREVIATIONS</b> .....	<b>viii</b>
<b>LIST OF FIGURES</b> .....	<b>ix</b>
<b>LIST OF TABLES</b> .....	<b>x</b>
<b>ABSTRACT</b> .....	<b>xi</b>
<b>ÖZET</b> .....	<b>xii</b>
<b>1. INTRODUCTION</b> .....	<b>1</b>
1.1 General Overview .....	1
1.2 Problem Statement: .....	2
1.3 Significance/ Importance of the Study .....	3
1.4 Purpose/ Objective of the study .....	4
1.5 Research Hypothesis.....	4
1.6 Thesis outlines .....	4
<b>2. LITERATURE REVIEW</b> .....	<b>6</b>
2.1 Introduction .....	6
2.2 History of Green Marketing .....	7
2.3 Green Marketing Concept.....	9
2.4 Why Green Marketing? .....	10
2.5 Greening the 4Ps of marketing mix .....	12
2.6 Conceptual Framework for Green Product .....	16
2.6.1 Green Product Concept .....	16
2.6.2 Green Product Characteristics .....	18
2.6.3 Activities related to the green product .....	18
2.6.3.1 Green Brand .....	18
2.6.3.2 Greener/Cleaner Production .....	20
2.6.4 Green product development stages .....	21
2.6.4.1 Setting standards:.....	21
2.6.4.2 Product development: .....	21
2.6.4.3 Providing information:.....	22
2.6.5 Green Product lifecycle .....	22
2.6.5.1 Introduction Stage.....	23
2.6.5.2 Growth Stage.....	23
2.6.5.3 Maturity Stage .....	23
2.6.5.4 Decline Stage.....	23
2.6.6 The impact of green products on consumer behavior .....	25
2.6.6.1 Product Influence Level on Purchase Decision.....	25
2.6.6.2 The relationship between green product and consumer behavior .....	27

2.6.6.3	The effect of the green product category on the consumer behavior ..	28
2.6.6.4	The impact of the green brand on the consumer behavior .....	28
2.6.6.5	Green Consumers .....	29
2.6.6.6	Traditional Consumer .....	30
2.7	Factors Affecting Green Purchase intention .....	30
2.7.1	Theoretical Background of the Subject .....	30
2.7.1.1	Theory of Planned Behavior (TPB) and the Theory of Reasoned Action (TRA) .....	30
2.7.2	Independent variables and their effect on the consumers' purchase intention .....	32
2.7.2.1	Environmental Concern .....	32
2.7.2.2	Knowledge or Involvement .....	33
2.7.2.3	Labeling .....	34
2.7.2.4	Green Advertising.....	36
2.7.2.5	Subjective Norms .....	37
2.7.3	Dependent variable .....	37
2.7.3.1	Green Purchase Intention .....	37
2.7.4	Moderation effect .....	38
2.7.4.1	Price Sensitivity .....	38
<b>3.</b>	<b>RESEARCH MODEL AND METHODOLOGY .....</b>	<b>39</b>
3.1	Research Model and Hypotheses .....	39
3.2	Questionnaire Design .....	40
3.3	Sampling and data collection .....	42
<b>4.</b>	<b>ANALYSIS .....</b>	<b>43</b>
4.1	Descriptive statistics .....	43
4.2	Normal Distribution.....	44
4.3	Factor Analysis (Exploratory Factor Analysis).....	45
4.4	Multiple Regression Analysis .....	49
<b>5.</b>	<b>DISCUSSION AND CONCLUSION .....</b>	<b>52</b>
5.1	Discussion of Research Findings .....	52
5.2	Research Limitation and Contribution.....	53
5.3	Suggestion for Future Researches .....	53
	<b>REFERENCES .....</b>	<b>55</b>
	<b>APPENDICES.....</b>	<b>64</b>
	<b>RESUME.....</b>	<b>75</b>



## **ABBREVIATIONS**

<b>AMA</b>	: American Marketing Association
<b>ANOVA</b>	: Analysis of Variance
<b>EC</b>	: Environmental Concern
<b>EFA</b>	: Exploratory Factor Analysis
<b>EK</b>	: Environmental Knowledge
<b>GPI</b>	: Green Purchase Intention
<b>KMO</b>	: Keiser-Meyer-Olkin Test
<b>SN</b>	: Subjective Norm
<b>SPSS</b>	: Statistical Package for the Social Sciences
<b>TPB</b>	: Theory of Planned Behavior
<b>TRA</b>	: Theory of Reasoned Actions

## LIST OF FIGURES

	<b><u>Page</u></b>
<b>Figure 2. 1:</b> Timeline of key events in green product consumerism from 1980 to 2010 (Air Quality Sciences, Inc., 2010).....	8
<b>Figure 2. 2:</b> Green Product Development according to (Dangelico & Pujari 2010)...	22
<b>Figure 2. 3:</b> Theory of Reasoned Action Adopted From (Madden et al., 1992).....	30
<b>Figure 2. 4:</b> Theory of Planned Behavior adopted from (Madden et al.1992).....	31
<b>Figure 3. 1:</b> The Conceptual Model of The Study.....	39
<b>Figure 4. 2:</b> The New Research Model.....	49

## LIST OF TABLES

	<b><u>Page</u></b>
<b>Table 2. 1:</b> The most important characteristics in analyzing the relationship between the product and the consumer (Al-Minyawi, 2006). .....	26
<b>Table 3. 1:</b> Scales- Measurement Items.....	41
<b>Table 4. 1:</b> Descriptive statistics for demographics.....	44
<b>Table 4. 2:</b> Normal distribution .....	45
<b>Table 4. 3:</b> KMO and Bartlett's Test Results .....	46
<b>Table 4. 4:</b> Factor Loadings of Factor Analysis .....	48
<b>Table 4. 5:</b> Results of Regression Analysis .....	50
<b>Table 4. 6:</b> Summary Table of Hypothesis Tests.....	51

## **FACTORS AFFECTING GREEN PURCHASE INTENTION FOR CONSUMERS IN THE MODERATION EFFECT OF PRICE SENSITIVITY**

### **ABSTRACT**

As the world is witnessing a massive development in various fields, this development has caused severe damage to the environment and to the depletion of natural resources. As a result, environmental issues have become one of the most important concerns in the 21st century. Under these changes, companies and organizations around the world have started to call for the preservation of the environment and make the world a more suitable place to live, where a lot of businesses and organizations started to reconsider their social and ethical responsibilities in their marketing practices, by giving the environmental dimension prominent importance in their marketing strategies. Hence, a new trend in marketing has taken a place, known as green marketing, which is about giving a strong commitment to environmental responsibility in marketing activities. This research aimed at studying factors that influencing the intention for buying green products. For running this process, a questionnaire sample was distributed among 251 people in order to get a response regarding the factors that influence the green purchase intention. According to the findings, it was seen that Green advertising, Environmental Involvement and Subjective Norm influence the Green Purchase intention. The labelling hypothesis was rejected due to the lack of the respondents' perceiving. The moderation effect of price sensitivity could not be applied as it was removed from the model in the factor analysis.

**Keywords:** *Environment, Green Product, Green Purchase Intention, Green Consumers, Green Marketing, Environmental Concern, Green Advertisement, Subjective Norm, Knowledge.*

# YEŞİL ÜRÜN SATINALMA NİYETİNE ETKİ EDEN FAKTÖRLERİN FİYAT HASSASİYETİ DÜZENLETİCİ ETKİSİYLE DEĞERLENDİRİLMESİ

## ÖZET

Dünya, farklı alanlarda devasa gelişmelere sahne olurken, bu gelişmeler çevre üzerinde şiddetli tahribatlara ve doğal kaynakların tükenmesine yol açmaktadır. Çevresel sorunlar 21. Yüzyılın en önemli kaygılardan biri haline gelmiştir. Bu değişiklikler bağlamında, şirketler ve kurumlar çevrenin korunması ve dünyanın daha yaşanılabilir bir yer olması için tüm dünyaya çağrıda bulunmaya başlamışlardır. Çok sayıda işletme pazar ve pazarlama stratejilerinde çevresel konulara öncelik vererek, sosyal ve etik sorumluluklarını yeniden gözden geçirmeye başlamışlardır.

Bu nedenle, literatüre yeşil pazarlama olarak girmiş olan kavram hem teorisyenler hem de pazarlama pratisyenleri için önemli bir başlık haline gelmektedir. Dolayısıyla bu çalışmada tüketicilerin yeşil pazarlamaya bakış açısı yeşil ürün satın alma niyetleri üzerinden incelenmektedir. Tüketicilerin yeşil ürün satın alma niyetlerini ölçmek amacıyla toplam 251 kişiye ulaşılan çalışmada, tüketici tutumuna etki eden faktörler; yeşil reklamcılık, çevre konularına duyulan ilginlik ve sübjektif normlar olarak sıralanmaktadır. Çalışmada fiyat hassasiyeti düzenleyici etkisi, yapılan faktör analizinde ilgili değişkenin istatistiki olarak anlamlılık yakalayamaması nedeniyle ölçümlenememiştir.

**Anahtar Kelimeler:** Çevre, Yeşil Ürün, Yeşil Satın Alma Niyeti, Yeşil Tüketiciler, Yeşil Pazarlama, Çevresel Kaygı, Yeşil Reklamcılık, Sübjektif Norm, Bilgi.

# **1. INTRODUCTION**

## **1.1 General Overview**

Human consumption of goods and services has been in an enormous increment globally over the last decade, this has caused a serious issue to the environment and damage to the natural resources (Chen & Chai, 2010). Global warming, air and environmental pollution, decline of flora and fauna are represented as an environmentally damaging factors (Chen & Chai, 2010).

Since the early 1960s, the world has been very concerned about environmental issues such as pollution and depletion of energy sources, this concern has especially grown by early 1970s in which new issues took place on the surface such as global climate changing, increased depletion of natural resources, air pollution caused by exhaust gases, damage to the natural environment as a result of industrial waste, forest logging and shrinking of green areas, acid rain, damage to the ozone layer in the atmosphere and leakage of toxic substances, reduced bioactivity, production and marketing of harmful substances to the environment and human, as well as human misuse of the environment and natural resources.

According to these changes, various associations and organizations have been starting calling for preserving the environment and began working on developing their businesses in a way that reduces the damages and harm to the environment since then.

The serious concern towards the environment has driven the society and enterprises to emerge the sustainable development, that reduces the harmful effect of the normal activities on the environment. Sustainable development as a result, encourages eco innovation and pushing the public to be more concerned about the environment and more responsible towards environmental activities, and therefore, encouraging green consumption. Eco innovation deals with applying environmental sustainability initiation on the whole product manufacturing lifecycle from the beginning till the last step of the production (Veleva & Ellenbecker, 2001). Green consumption occurs as a

result of environmentally responsible consumption in which consumers take into consideration their purchases impact on the environment, thus, they will be willing to cooperate all together in the aim of keeping a safe environment (Moisander, 2007).

## **1.2 Problem Statement:**

Environmentally responsible purchasing is an important factor in helping to preserve the environment, by assuring whether the purchases are being harmful to the environment, by identifying how the product is manufactured, the possibility of its biodegradability, and other factors that might affect the environment. Irresponsible purchasing might harm the environment and cause a severe worry regarding it. Grunert & Juhl (1995) showed that 40% of the environmental damage was caused by inappropriate consumer household purchases.

Consumers have the power to decrease the damage to the environment by purchasing green products and encouraging others to purchase these products. It is shown that consumers are interested and have the willingness to save the environment (Arvola et al., 2008, Ellen et al., 2006, Liu et al., 2012, Vermeir & Verbeke, 2006). In earlier times, companies' holders have been asked for producing green products for consumers (Schmeltz, 2012). Despite the increasing willingness to purchase green products by communities, barely increment can be seen in the numbers of green product purchases, regardless the positive attitude of customers towards green products and acting an effective role by their contributing to environment preservation, the market share of green products represents only 1-3% of the entire market share (Bray, Johns & Killburn, 2011). This may lead to the idea of people's irresponsibility about the impact of their purchasing behavior on the environment and not taking this point into consideration while purchasing products (Mohr, Webb & Harris, 2001). In a lot of studies regarding green purchase behavior, it was reported that there was a gap between consumers' showed and preferred attitudes towards green purchasing and their actual and real practices in this regard (Tanner & Wölfling Kast, 2003; Vermeir & Verbeke, 2006; Vermeir & Verbeke, 2008).

Hughner et al. (2007) reported that in the time when 67% of consumers expressed their positive attitudes for purchasing organic food, only 4% of them went to the later step and bought these products. Defra (2006) stated that only 30% of UK consumers showed their concern regarding the environment, however, few of them actually did

the purchases. This shows that there is a missing link between consumers' thinking and their actual actions (Chen & Chai, 2010). The contradiction between the consumers' favorable attitude towards the green products and their actual buying procedure is called "Green Purchasing Inconsistency". It illustrates that consumers' favorable attitude towards green products may not refer to actual purchasing action. This is why it is essential to study the factors that influence the Green Purchase Intention, and also, price factor as a moderator in affecting the green purchase intention of consumers to be studied in this paper, and how will the price factor affect this intention within its presence as a further effect on green purchase intention. In other side, as the questionnaire has been published in Iraq, the researcher has faced a large segment of people who were presented to respond to the questionnaire had no idea about the green products. According to the argument above, it is important to introduce the green marketing and also to give information about green products in this paper by the researcher. It is important to make more awareness and more studies regarding the green products in the Middle East and globally as a whole.

### **1.3 Significance/ Importance of the Study**

This research hopes to contribute at two levels:

First, at a scholarly level, since there are a relatively limited number of research on green products especially in the Middle East, this study will put a spotlight on the green product and its importance and give a new direction for more studies regarding green products to assure a better future and environment for the future and next generations.

Second, at a practical level, where the study analyses will help to clarify the most important factors affecting the consumers' attitudes positively towards green products purchasing, and thus, will help the business owners and companies in adopting green products to their production lines, thereby, increasing the efficiency and effectiveness of the organization, that leads to its expansion and directs it to a new path of a cleaner production for a better environment.



#### **1.4 Purpose/ Objective of the study**

This study is aiming at analyzing the behavior of the green consumers towards the factors influencing their purchase of these products and the extent of green prices' influence on the consumers and the effect of the green price in the purchase decision, and also, examining whether the price is an obstacle in purchasing green products. In order to meet this end, the researcher adopted a questionnaire as an assessment instrument, data were collected in Iraq to understand and analyze the results. This study will also show the orientations and behavior of Iraqi society towards the green product as the data were collected in Iraq.

#### **1.5 Research Hypothesis**

The research hypotheses of this study are considered as follows:

H<sub>1</sub>: Environmental concern has a positive effect on the green purchase intention.

H<sub>2</sub>: Knowledge, involvement or awareness has a positive effect on the green purchase intention.

H<sub>3</sub>: Labelling has a positive effect on the green purchase intention.

H<sub>4</sub>: Green advertising has a positive effect on the green purchase intention.

H<sub>5</sub>: Subjective norms has a positive effect on the green purchase intention.

H<sub>6</sub>: Price sensitivity has a moderation effect between all independent variables to green purchase intention.

Later in this paper all hypotheses will be discussed and illustrated whether accepted or rejected in the analysis and results part.

#### **1.6 Thesis outlines**

This research paper is subdivided into five chapters:

Chapter 1: Presents an introduction and general overview of the subject, research importance, significance of the study and research hypotheses.

Chapter 2: Includes literature review about the subject, which is selected from related articles, books and journals to give a better understanding of the subject.

Chapter 3: Illustrates the research methodology, that includes the research model, sampling and data collection and the questionnaire design.

Chapter 4: Includes the analyses part of the research.

Chapter 5: Gives the discussion of the analyses and conclusion of the study, and also, recommendations for future studies regarding the subject.



## **2. LITERATURE REVIEW**

### **2.1 Introduction**

The term "Sustainability" has become widespread and can be applied almost to every aspect of life on earth. As Natural resources are rare and human needs continue, this has awakened the consumers all over the world regarding saving the environment. Increased environmental consciousness among consumers has been achieved due to growing awareness globally regarding keeping natural resources, which has made a turning point in the behaviors for both consumers and businesses. Nowadays, the world is witnessing a new era of brand new products that are recyclable, environmentally safe and not toxic, these products are the green products.

In recent time, consumers are being more conscious regarding the fortification of the environment and trying to save it. Consumers are showing an interest in using non-toxic products, believing that they are safer to humans and society, and also to the environment. People around the world are being interested in the environmentally friendly products represented in organic food, natural and organic cosmetics and skin care products, recyclable packaging, energy-saving electric products, hybrid cars and also, green buildings, etc. Sustainable development is achieved in a way that all aspects of life should go to green and include green production in the production agenda. Marketing is an important sector in promoting this direction. This has paved the road to the emergence of Green Marketing that deals with promoting environmentally friendly products and supports sustainability. Green marketing differs from traditional marketing, that green marketing has to adjust the products in a way that makes them more convenient and have a less detrimental impact on the environment; by following up the production process, starting with the used material till packaging, advertisement of these products and so on.

Although transferring to "Green" may face a lot of challenges that the cost factor could be marked as one of them in the current time and near future, yet it is the most helpful

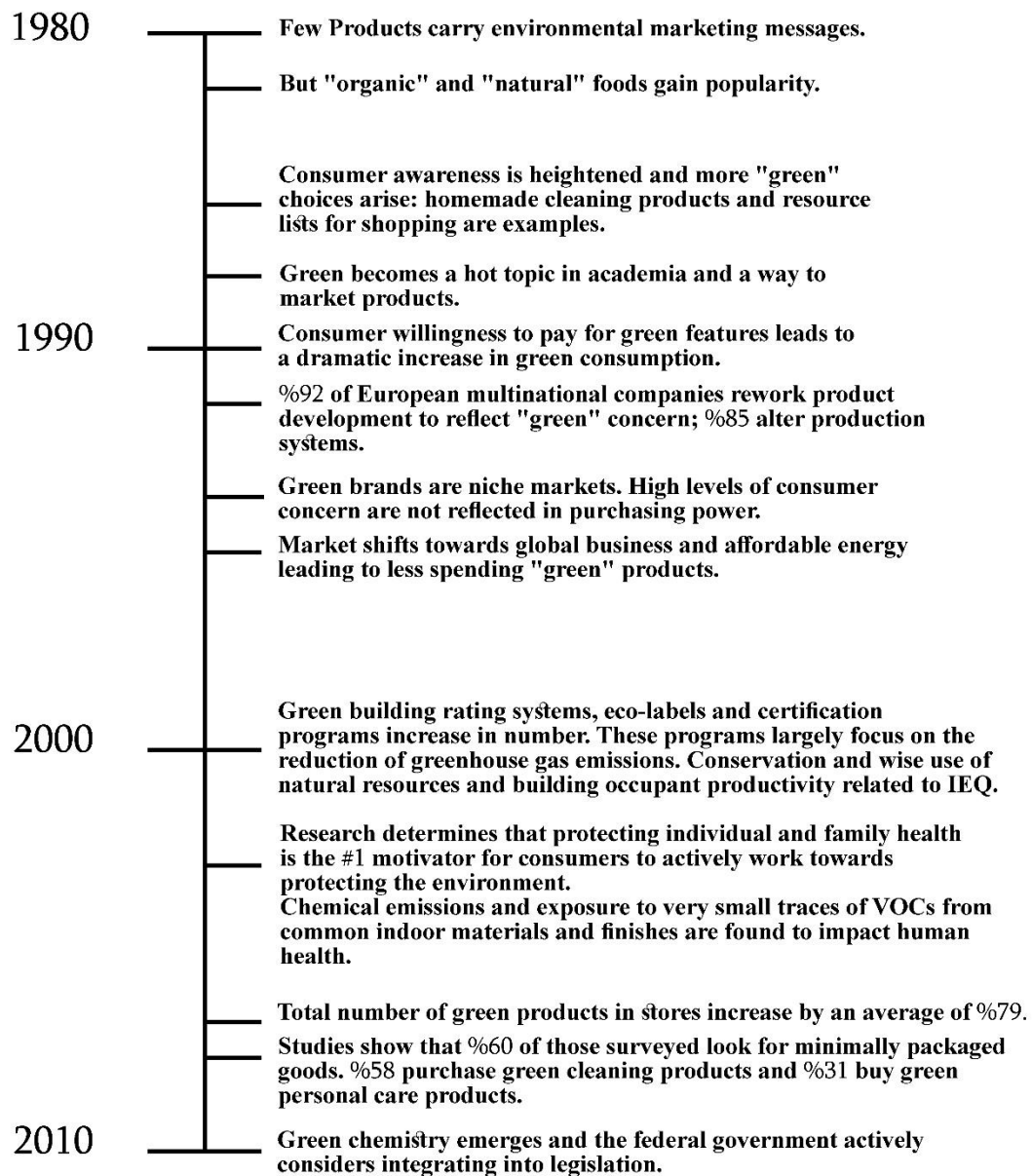
step that could be taken to save the earth and the next generation for sustainable living. Many business organizations are now seriously considering the environmental damage caused by traditional production procedures and started to use the "Green" word in their marketing campaigns. Thus, business organizations are starting to use these allusions and signs and are going towards green for a better future for the globe (Azad, 2012).

## **2.2 History of Green Marketing**

The term "Green Marketing" salience had taken place at the end of the 1980s and early beginning of 1990s. Green Marketing has witnessed different stages since the trigger point in the 1980s reaching the growing development in the 2000s and later (Ottman et al., 2006). As the first workshop on "Ecological Marketing" that was held in 1975, by the American Marketing Association (AMA), had resulted afterward in the birth of one of the very early books in the green marketing field, under the name of "Ecological Marketing" (Singh, 2013). The World Commission on Environment and Development (WCED), which was found in 1983, had given the Sustainable Development definition in their paper named "Our Common Future" in 1987 in which was saying that it is a development that fulfills the needs of the persons in the present time without affecting the ability of future generations to meet their needs. This report was known later as the Brundtland Report. This publication was an important step in setting a global awareness regards sustainable development.

Green marketing development could be classified into three stages: The first stage is when the green marketing name had appeared for the first time in the market (Peattie & Crane, 2005). Second stage was the era of the 1990s, which was aiming to be a promising period that could emerge new products to market and initiate a new wave of consumers (Vandermerwe & Oliff, 1990). However, it was not a bright period of green marketing, as the newborn green products were drawn and fade away from the market that resulted in leaving the market; and hence, green products were descended in the early 1990s (Peattie & Crane, 2005). The third stage had taken place at the beginning of the 2000s. It was described as the "comeback" of green marketing (Ottman et al., 2006). The return of interest in green products in this period has come back even more, with more inspections and studies by governments and business organizations, as well as increased awareness of people about green products and many green products have been produced with high quality. With the globally increased

concern towards the environment, green marketing has gained more interest and importance that made it prosper and grow again (Lee, 2008).



**Figure 2. 1:**Timeline of key events in green product consumerism from 1980 to 2010 (Harjani, & Noviandri, 2018).

Before 1980, it was rare to see products in the markets which adhere to the environment and call to conserve it. Organic food and natural products in the food markets were accepted in that period, in which these products have thrived.

By the late 1980s and 1990s, the “green” products concept had become more familiar and marketing these products have become more present in that time.

Afterward, by the beginning of the 21st century, more concerns and worries came up with all the problems started with global warming and depletion of natural resources, made businesses take an action and start the "Green" mainstream.

Researches stated that the word "Green" is an obscure and hard word in a report made in the year of 2010 on environmental claims made in the North American Market. Marketers and consumers may get paid attention to it but may not understand the reason behind this word or its aim. Green products are to bring balance and benefit to the environment (Choice, 2009).

### **2.3 Green Marketing Concept**

Previous studies utilized more than one term to describe this subject such as Ecological Marketing, Greener Marketing and Environmental Marketing, but the most common term that is adopted is Green Marketing (Chamorro et al., 2009).

Green marketing is a philosophy and an integrated marketing philosophy, which aims to create a positive impact on the preferences of customers in a way that leads them to seek environmentally friendly products. Researchers and writers in the management field generally and marketing field particularly have developed several concepts of green marketing as follows:

Pride & Ferrell (1993) mentioned that green marketing is the process of developing, pricing and promotion of products that do not harm the natural environment.

Kotler and Armstrong defined green marketing as the movement that goes towards the action of companies' development of environmentally responsible products (Kotler & Armstrong, 1996).

Polonsky (1994) mentioned that green marketing is the activities that aim to meet all human needs, without causing harmful effects to the environment.

Stanton & Futrell (1987) define green or environmental marketing as the actions that are made to meet the current needs of the people, with less harmful effects on the environment.

Green Marketing term has been one of the most used concepts in the marketing field nowadays to promote the green products and green activities of the organizations and companies. Green Marketing has three definitions according to the American Marketing Association (AMA): First definition is: Green marketing is defined as marketing of products which are supposed to be safe to the environment, this is the Retailing Definition. Second, Green Marketing is the marketing and developing products in order to reduce the negative effects of harmful substances used in the manufacturing process of the product on the environment (Social Marketing Definition). Third, Green Marketing is the efforts of the organizations and companies to produce products that respond to the environmental crisis, represented by its way of packaging, promoting and reclaiming (Environmental Definition), (Yadav & Singh, 2014).

It is noted through the given definitions above some joint characteristics including:

- Green marketing is an activity that targets products that are free of any cause of environmental damage.
- Is the continuous process of developing, pricing and promotion of products that are in constant contact with the surrounding environment?
- Creating a positive environment free of harm and pollution to society and the natural environment.

From the mentioned above, it can be said that green marketing is a comprehensive process that aims to business organizations' commitment in providing products, activities, concepts, information and experiences that are not harmful to society and the natural environment.

#### **2.4 Why Green Marketing?**

In recent time, it is seen that people are being more aware of the natural resources and the intense consumption of these resources all over the years that started leading to the depleting, trying to find the proper solution for saving the natural resources of the earth. In the same time, businesses are observing the consumers' thoughts and are working to meet the consumers' new needs and concerns towards the environment. Green Marketing is an important step to the businesses who seek continuity and uniqueness, by adopting new production line which supports clean production to meet consumers' needs. Green production is represented by following a clean production,

promotion and packaging. It is important to use natural resources efficiently and carefully in order to sustain life for future generations. For this reason, green marketing is inevitable (Lal, 2014).

Businesses go for green marketing for the following reasons:

- **Opportunities:** Organizations and firms see new opportunities and scopes to utilize in acquiring new customers and focus on the new trend in marketing environmentally friendly products and thus, will have a competitive advantage over other companies who do not care about the environment in their production and marketing (Raghuvanshi, 2015).
- **Social responsibility:** A large number of companies have started realizing the serious environmental issues, and started to realize their important role in saving the environment. Therefore; companies have begun to work over achieving the environmental goals of the organization as well as to gain profit (Lal, 2014). This shows that environmental responsibility is being merged into the firm's atmosphere. Companies can use this concern as a marketing tool and can be environmentally responsible company without using this tool as promotion, such as Coca-Cola Company, that they modified their packaging production to correspond to the environmental issues, but without promoting any of these activities (Tiwari et al., 2011).
- **Governmental pressure:** Various regulations and legislations have been framed by the governments to save and protect the environment and society from the harmful effects of products and their production. For instance, the government of India, that legislated a new framework to reduce the production of harmful goods (Sharma & Singh, 2015).
- **Competitive pressure:** A lot of businesses follow green marketing in order to stay in the market and gain competitive advantage, that made some implications in the industry later on. Such as THE BODYSHOP being a niche company in green products made it one of its kind and to be followed by other companies (Lal, 2014).
- **Cost reduction:** By reducing the harmful waste of the production, cost saving will be achieved too. The waste resulted from the production of one firm's production is used by another firm as raw material. Such as the fly ash which is resulted from the



thermal power plant, that instead of ending up to be solid waste, it is used to manufacture fly ash bricks (FAB) which is used in construction (Tiwari et al., 2011).

## **2.5 Greening the 4Ps of marketing mix**

The marketing mix which is represented in the 4Ps, is an important aspect in marketing that could be seen in the traditional business studies. The 4Ps are: Product, Price, Place and Promotion. Greening these 4Ps in the green marketing will be explained as below:

- **Product:** Thakur (2016) mentioned that adopting ecological objectives in the production of products is to save rare and scarce resources from depleting and also, in taking down the pollution levels.

A product is considered a “green” when it has a less harmful effect on the environment with each process of its production. The raw materials that are used in the product should be gained in a way that doesn't cause a problem to the environment and assure that the natural resources are secured and preserved. This is why is it important for businesses and organizations to take into account environmental aspects in their production and be responsible for saving the globe. They must create and develop products which are environmentally friendly with their contents and packaging, that would have a less polluting effect on the environment (Arseculeratne & Yazdanifard, 2014).

A green product is derived from decisions and actions related to the product that aims to preserve the environment in different ways such as natural resources and energy conservation, managing the waste by planning to have products with less polluting effect and reducing the waste. To achieve this, strategic and tactical approaches are applied. Packaging and labeling products in a way that can save the environment are considered as a tactical challenge for several firms. Hewlett-Packard (HP) as an example reduced the disposal amount of laptops packaging by selling its laptops in a readymade carrying case. This had led to the reduction of disposable laptop packaging by 97% (Belz & Peattie, 2009). Another challenge was taken by Nestlé, which minimized the size of the paper labels on its bottled water brands by 30% (Ottman, 2011). In the strategic case, firms may adopt new techniques for green products, that have an effect on the production which modifies and changes the process of manufacturing with aiming to produce an environmentally friendly product. To meet this challenge SC Johnson eliminated the use of polybutylene terephthalate in all of its

products and thus, the company modified the composition of all its products. Likewise, Nike released the Air Jordan XX3 shoes, that are made from recycled materials (Ottman, 2011).

Green product is the main reason of green marketing. Green products' manufacturing undergoes procedures normal products do not follow. A lot of enterprises nowadays are concerned of the way products are being manufactured. They are aware of the effect left on the environment as a result of the production of products. It is hard for companies who seek low cost manufacturing to switch to green products, as they use low cost and non-biodegradable materials, which contradicts the logic of the green products (Bhalerao & Deshmukh, 2015).

The following components are important in considering the green product in the marketing mix (Bhalerao & Deshmukh, 2015):

- Design: An important factor in influencing the purchase decision of the product. It should be customer friendly, striking and remarkable.
- Technology: The followed technology in manufacturing the product should be environmentally responsible. It is not allowed to accept the product if its used manufacturing technology has any pollution effect on the environment.
- Usefulness: The product should meet the needs of the customers that they are expecting of it.
- Value: Value of the product lies in what it is expected to be delivered to the customer and what the customer needs of it. People who seek brands do not care to the price of the product, whilst people who care for the price will value the product that offers them what they seek in a convenient price. Companies should develop their product in a way that give the best of its service without causing problems to the environment and affecting the value of the environment.
- Convenience: The product should be easy to use and easily to reach or available to the customers.
- Quality: For the conventional products it is always preferable to get the quality products by customers. For the green product, it should be high quality one that servers the customer need at it premium quality.
- Packaging: Packaging is a sign of the product's value. The packaging should comply with the green products conditions, which should use decomposable

materials in the packaging. Non decomposable plastic material should not be accepted as a green product.

- Price: Price is the amount of money customer pays to get any product. The price differs according to the product of the same category, where the material of the product affects the price, the brand affects the price, the value of the product and product uniqueness. As environmental concerns may be costly, the reason that green products' prices may be relatively higher than the conventional ones. For instance, hybrid cars are costlier than the normal cars, likewise in green buildings. The price is not effective while deciding purchasing of green products (Bhalerao & Deshmukh, 2015).

Going green is considered an expensive process due to the expenses spent on product developing, by merging new technology and training people to switch to green, waste management and achieving a recyclable product, and absorbing external costs. These costs are merged and added to the final product cost, thereby releasing a product with a premium price. This price can get even higher with addition promotion applied as the cost of the promotion will be added too to the final price. Marketing plays an important role in rationalizing these expenses and encouraging consumers to pay for green products. These actions must be supported through strong and convincing advertisements. It is seen that excluding the packaging material could reduce the cost of green products, this is the most desirable decision presented by businesses as packaging costs set up serious expenses added to the unit cost (Arseculeratne & Yazdanifard, 2014). Green pricing is considered by taking into account both economic and environmental costs of production and marketing. Product quality is presented to the customer and profit is gained for the company/business. From a tactical extent, a company can apply some actions that could be taken as a reward to the customers, such as the discounts that could be given to the customers for bringing back the recyclable packaging. Example in that the "recycle bank" that was emerged by Coca-Cola to reward the customers for recycling their bottles. A firm can charge the customer for being environmentally unfriendly such as in the United Kingdom, Marks & Spencer charges customers who carry plastic bags and encourages the use of environmentally friendly bags (Belz & Peattie, 2009).

Under new government regulation in Turkey applied in January 2019, all grocery and retail stores are obliged to charge the customers for each plastic bag given as a step to

reduce the amount of non-recyclable waste and harmful consumption and to clean the Mediterranean Sea.

In the strategic extent, a firm can show the used techniques and its costs to achieve sustainability from its production. For example, E.ON the German electric utility company in 2011 gave the option for its customers to get green electricity at higher prices. Likewise, Seventh Generation sells its environmentally friendly cleaning and hygiene products at a higher price than the normal products of the same line to show the higher production cost of the environmental ones (Dahlstrom, 2011).

- Place: Green place explains where is the green product sold or how product is being delivered from the manufacturer to the distribution channel (Bhalerao & Deshmukh, 2015). It speaks for the way the product is being delivered throughout the channels, for the channels are an important point that can affect the environment, in other words, the transportation means of products to the delivery may cause severe damage to the environment. For this reason, organizations must take into their account environmental issues while delivering their goods (Arseculeratne & Yazdanifard, 2014).

Green distribution adoption manages to innovate new ways aiming to serve the environment by improving the transportation process of the goods that leads to creating new opportunities to achieve sustainability. Tactical ways are used to help attain green distribution such as dealing with channel partners to retrieve materials or parts which are recyclable or reusable from customers. Example on that Hewlett-Packard (HP) partnered with Staples to be an authorized location for recycling empty printer ink cartridges (Eneizan et al, 2015). From a strategic perspective, firms may assign new rules and policies which would help suppliers and distributors comply with environmental conservation rules as part of their marketing plan. Companies can collaborate with channel partners to improve the impact of their work on the environment, e.g., making fewer but fuller cargo deliveries (Dahlstrom, 2011).

Green place maybe referred also to the place where it can minimize the efforts and time of the manufacturers as well as the customers. As companies are having their own online websites to give the opportunity to sell their products online, it saves the time and efforts of the customers in getting the desired product, therefore; the website and internet is considered as a green place (Bhalerao & Deshmukh, 2015). Some stores started to implement solar energy systems such as "Kohl's", while others are using

some alternative sources of energy rather than the normal fuel in their trucks such as "Walmart".

- **Promotion:** companies use promotion to promote their activities and their products. Companies set a great budget for promotion in order to target new customers and maintain their current ones in order to achieve profit. When promoting a green product, what to promote should be taken into account. For instance, the plastic bags are harmful to the environment and should be replaced with the recyclable and environmentally friendly ones. Firms should mope their promotional content before publishing it to the public, so to make sure that the message is ethical and moral.

Promotion includes different ways to spotlight over green products and to deliver the importance and benefits of these products. Direct marketing, sales promotions, public relations, advertising are tools which are used to promote green products, however, the last two approaches are the most supported ones for green products of a firm (Arseculeratne & Yazdanifard, 2014). Green promotion is an important mean of disclosing the company's environmental orientations by reflecting its commitment to environmental conservation (Belz & Peattie, 2009; Dahlstrom, 2011). In a tactical sight, it is seen that firms can adopt programs that have the ability to reduce the destructive effect of marketing communication tools (Kotler, 2011). Example of that, Dell uses almost 50% of recycled paper in its direct mail catalogs (Belz & Peattie, 2009). In a strategic perspective, firms can integrate environmental claims with the benefits of their products on the environment. For instance, Arial, one of the first Procter & Gamble (P&G) brands in the United Kingdom, launched a campaign to reduce the laundry washing temperature to 30°C by promoting 'Turn to 30°C' message. This campaign had led to cut down annual 60,000 tons of carbon dioxide emissions (Belz & Peattie, 2009).

## **2.6 Conceptual Framework for Green Product**

### **2.6.1 Green Product Concept**

Green products are defined as the products which do not pollute the environment and deplete the natural resources of the earth, and also could be recycled (Shamdasani et al., 1993). The Green Purchasing Affirmative Procurement Program (GPAPP) which is related to the US Department of Agriculture (USDA) stated eight components to be considered as green products, these products include recycled content, energy

efficient, bio-based, environmentally preferable, Electronic Product Environmental Assessment Tool (EPEAT), water efficient, non-ozone depleting and alternate fuels. The GPAPP had set criteria for each item to be considered as a green product. As concerns for the environment is being risen, markets for environmentally friendly products are being risen too in the United States and other developed countries (Hamilton & Zilberman, 2006). (LOHAS) is referring to the Lifestyle of Health and Sustainability, it describes a particular group of consumers that care and seek a healthier and sustainable living. It was stated that The U.S. green market includes 50 million people and accounts for about \$229 billion which forms about 6% of the total U.S. retail sales (\$3,945 billion) in 2006. This number was higher than the sales on the internet, where about \$150 billion were sold over the internet in 2006 that makes about %4 of the total U.S. retail sales. In addition, green products sales numbers had grown from \$414.7 billion in 2007 to \$678.2 billion in 2008 (Tolliver-Nigro, 2009).

Green market growth is expected in the different market segments such as in the food, vehicles and building materials (Bonini & Oppenheim, 2008). Onyango, Hallman & Bellows (2007) stated that about 42% of U.S. consumers have done green food purchases regularly. Ciocci & Pecht (2006) stated that more than 55% of people are willing to purchase green electronics and appliances. It was stated in the GfK Roper Green Gauge study that 61% Of U.S. consumers prefer conventional products over the green products (Bonini & Oppenheim, 2008). It was reported that 41% of consumers were not sure about the quality of green products (Ginsberg & Bloom, 2004). Some people have the idea that green apparels are more expensive than conventional ones (Nimon & Beghin, 1999). This may explain why most consumers do not have the guts to pay extra for green products especially the green apparel products (Bonini & Oppenheim, 2008). A study confirmed by Hustvedt & Bernard (2008) stated that only 8% of consumers are willing to re-purchase green apparel products, where only 25% of green apparel consumers have confirmed that green apparel products have a better quality than conventional apparel products.

In the current time, there's an increasing awareness regarding the environment and the environmentally-friendly products. For this reason, companies are willing to be more responsible regarding their activities and trying to take into account environmental concerns in their production. Many companies started to show their actions in their production by emerging new production materials that serve the environment, promising that these products are going to be in the markets with more suitable prices

in the future. For instance, Levi's uses organic cotton that could be recycled in their products. Moreover, Levi's is calling for saving water in their campaigns for their jeans products washing, that the company introduced a Water < Less line that uses less water in washing these jeans.

Firms may adopt new techniques for green products, that have an effect on the production which modifies and changes the process of manufacturing with aiming to produce an environmentally friendly product. To meet this challenge SC Johnson eliminated the use of polybutylene terephthalate in all of its products and thus, the company modified the composition of all its products. Likewise, Nike released the Air Jordan XX3 shoes, that are made from recycled materials (Ottman, 2011).

### **2.6.2 Green Product Characteristics**

Green products are defined as the products which do not pollute the environment and deplete the natural resources of the earth, and also could be recycled (Shamdasani et al., 1993). These products have less damage effect to human health than traditional alternatives. Green products might be entirely or partially made from recyclable materials, it can be manufactured in a way that does not deplete much from the earth resource, or it can be formed from local materials so there could be no need to importing materials and spend energy over transportation, also it could be less packaged and presented. These products could include all the mentioned cases. Developed countries like America and United Kingdom organizations have been pivotal in the provision of environmentally friendly products.

Sandu (2014) defined green products as those products that meet the environmental requirements in the state of the production. The products are considered effective and green if renewable energy was used during the lifecycle and reduced waste in the process of usage. The green products need to meet the criteria from product development through design to innovations of the products.

### **2.6.3 Activities related to the green product**

#### **2.6.3.1 Green Brand**

A Green brand could be defined as the values of environment compose the substance of the brand (Insch, 2011). With the growth of understanding and consciousness of environmental matters, confirmation on appearances of sustainability of the environment on both product and place branding has become more repeated and more

noticed (Insch, 2011). A green brand is the action of a brand to save the environment by minimizing its harmful impact on the environment, it presents itself as a healthy to the environment (Hartmann et al., 2005).

A green brand should present unique products to its consumers and should include eco-advantage products with distinguished features to attract its consumers to be considered as a successful green brand (Lee, 2008). This success is achieved by contact with the consumers and targeted groups to make sure acquiring their trust in the brand's ecological rendering which is the key to have a successful green brand (Montoro Rios et al., 2006).

Green brands are the brands that consumers link with environmental conservation and businesses that deal with sustainability. Such brands attract consumers who are becoming to have more interest in saving the environment. A green brand can make a profits to the green brand as corporate image is boosted also. However, if a company is found or perceived to overstate its green practices its green brand may be criticized as green wash (Wang, 2016).

Greenwash is defined as the false information publicized by a community or an organization to present an environmentally responsible public image.

For the consumer, an important key element in transmitting grand brand is the brand's packaging since it is the way in which consumers receive information as soon as purchasing and because of how packaging affects the environment. Many claims may be shown by companies because of sustainable packaging whether materials used, recycled or can be used once more or making packaging less. When the physical appearance of the product and brand is present, packaging becomes of especially high importance as in some products like cosmetics and toiletries field. Materials used in the process of packaging may not only support environmental certificates but also transmit the high goodness and luxury image of the brand (Iannuzzi, 2011).

The marketing strategy supports the green environment, for the organization officials need to understand the effect of being green. Becoming green is hence provided as a difference that exists for the outset and opens the market expectations. The Body Shop for instance, is competitive for the green brands that lead to the provision of the consumers' demands for eco-friendly products and supports the clean environment performance (Baker, 2003). Taking a combination of the concerns for the marketing



strategy is fundamental in developing green markets were the organizations use many or different undertakings to provide satisfaction for the consumers in demanding environmentally good products. These undertakings may include revamp advertisements, products adjustment and changing the production and operation schemes and also, recyclable packaging (Baker, 2003).

Grand brands looking for keeping their consumers interested in their sustaining images for long must find a philosophy that explains their use of the resources which can be new again, reducing waste, providing safe merchandise and duties and returning to the environment (Saxena & Khandelwal, 2010). Marketing plans must contain the regards of environment. After separating the market, green brands can approach their aim market by achieving powerful incorporated marketing communication (IMC) which their valuable suggestion to consumers (Saxena & Khandelwal, 2010).

In mid of 2007, the advertising standards authority (ASA) asked consumers to take care of green allegations that might not be real. It was declared by the A.S.A that green allegations have become clearly common in the advertisements, and has checked and supported many claims concerning unconfirmed environmental claims. So there must be a strong certificate to confirm any eco-friendly allegation. The A.S.A supported many claims against energy companies including some energy car manufacturers that include Toyota Lexus and Volkswagen.

When brands are conveying their clean and green image, they ought to obviously present environmental complaints that are honest in how their works affect the surrounding environment (Danciu, 2015). Green brands must not put themselves at the danger of greenwashing consumers. So their prosperity depends on the good way their green complaints satisfy shoppers (Danciu, 2015).

### **2.6.3.2 Greener/Cleaner Production**

Cleaner production is a precautionary, company-specific environmental safeguard action. Its main purpose is to reduce waste and emissions and maximize product output. By resolving the discharge of goods and energy in a company, one does his best to recognize choices to reduce waste and emissions of the industrial process by lowering the original designs. Improvements in technology help to minimize or propose better options in using materials and energy and to get rid of waste, wastewater

generation, and gaseous emissions, and also losses in heat (Schaltegger et al., 2008).  
Examples for cleaner production choices are;

- Registration of consumption.
- Using indicators and controllers.
- Good learning and training.
- Changing of stuff and helpful materials.
- Developing controls and automatization.
- Low waste processes and technologies.
- Reuse of waste (internal or external) and new.

#### **2.6.4 Green product development stages**

Green product according to Fuji Xerox sample passes through three stages as below (Al-Bakri, Al-Nouri, 2007):

##### **2.6.4.1 Setting standards:**

This is the stage of determination of the product's environmental performance standards. For this, standards relating to legal legislation are studied and observed and to study the technical information and the information related to market studies to determine the criteria precisely.

##### **2.6.4.2 Product development:**

This stage consists of four basic steps:

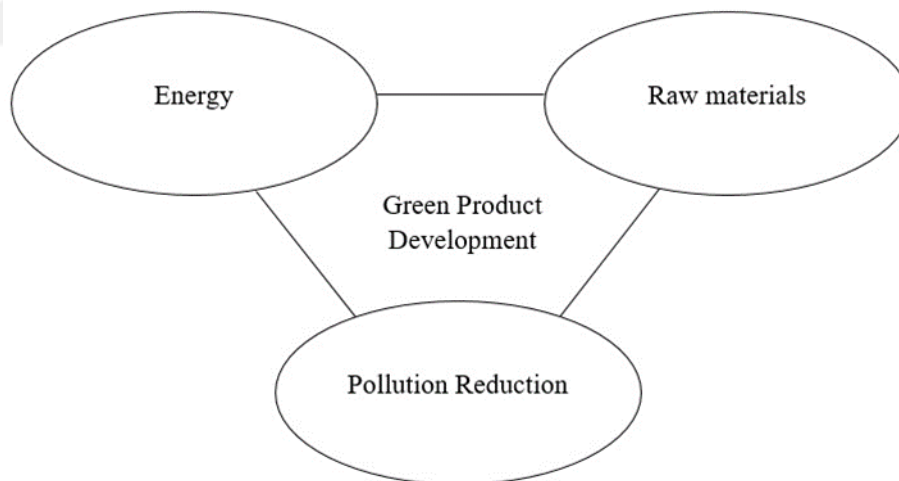
- **Product planning:** The compatible ideas with the topics previously set are selected and start setting the outlines of the product and adapted to the technical design relating the characteristics of product performance.
- **Design evaluation:** Here is the assessment of what has been done in the first step to be ready for prototype production. In this step, a set of auditing tools is used at the technical and environmental levels.
- **Submit the prototype:** After submitting the design the marketer provides a prototype to the market for testing on a limited scale to find out the pros and cons of the product comparing to criteria offered in the first stage.
- **Final submission:** At this stage, the product is evaluated definitively and introduced to the market widely.

### 2.6.4.3 Providing information:

Green product development needs to provide a range of information continuously during the development phase as a whole, this information relates to environmental legislation and technical information and market information which can be used during the planning phase of project design.

According to Dangelico & Pujari (2010), when developing green products, the following points should be taken into account:

- Raw materials: Where the product or packaging is reusable or recyclable and packaging wastes are biodegradable automatically.
- Energy: Energy used in manufacturing is in line with environmental requirements, as the use of renewable energy and energy conservation in manufacturing.
- Pollution Reduction: The product is less harmful to the environment compared to other products and to reduce emissions and pollution in the stages of the production process.



**Figure 2. 2:** Green Product Development according to (Dangelico & Pujari 2010).

### 2.6.5 Green Product lifecycle

A new manufacture advances during a series of phases from introduction to growth, ripeness and decline. This series is known as the product lifecycle and is related with variations in marketing condition, so affecting on marketing strategy and marketing

mix (Choice, 2009). The green product lifecycle according to the writer supply an evaluation in the determination below:

#### **2.6.5.1 Introduction Stage**

At this stage, the community looks for building product realization, improve a market for the manufacture. The effect on the marketing mix is as follows: manufacture branding and the degree of goodness is based and ideological feature security like patent and brands are gained. Pricing may be low pricing to establish a quick market share or non- exaggerated pricing to recover improvement expenses. Division is eclectic until buyers accept the manufacture. Promotion is the target which the creators and early adopters look for. Marketing communications look for building product realization and learning buyers about the product.

#### **2.6.5.2 Growth Stage**

In the magnification phase the company looks fixing a grand predilection and maximizing market share. The goodness of the products concerning the green products are preserved and there is another specification might be added to the product, the prices of the product are preserved for the community to gain more demand on the gaps for contests in the community. The divisions are done in an eco- friendly way that preserves contest in the right way. The division paths lead to enhance the demand for the product and green shape advancement of the consumer is targeted for the attainment of the wider environment for the public.

#### **2.6.5.3 Maturity Stage**

The heavy progress in sales reduces during this stage. An objection may seem due to finding a same product. The first thing to be done in this case is to advocate market pace share during working on increasing gain. The characteristics of the product may be reinforced to differentiate the product from that rival for the environment friend product. Due to the appearance of the new rival the price may be less, division becomes heavy and rewards may be given to support predilection over competing green manufactures and showing the differences in the environmental friendly behavior.

#### **2.6.5.4 Decline Stage**

At this level, the community affords choices at the same time of preserving the products while the product might be changed by using additional different features to reinforce the environmental friendship of using the product. For the shortage in costs

and continuous offering possibility loyalty concerning the product, it might be better to stop it and discharging remaining manufactures or selling to another company that is successful in going on with the product. Awards of the marketing mix in the decline phase will be taken as a result of the selected strategy.

The life cycle of the green product is the same as any other product that is explained in a series as explained previously. The specialists in the green marketing take care of the green product lifecycle strongly and focus some matters as follows (Al-Bakri,Al-Nouri,2007):

- Making the life of the green product as long as possible that gives the product the lead to other products, This effort is due to using resources in a good way which does not lead to loose them.
- Following all the stages of the product life precisely to know the environmental side effects of the product which may appear in any of the stages and then working to solve those effects.

Marketers are interested in analyzing the green products lifecycle in the way of recycling or reusing or reformatting or remanufacturing or maintaining that can be explained as below (Abdel Aleem, n.d):

1. Recycling: Includes collecting wastes and products and remanufacturing to recycle them in a matter they can be converted into raw materials to use them in the process of production once more.
2. Reusing: Many of the products can be reused many more times like soda water bottles, or the glass bottles, moreover the communities can introduce a product that can be used more than one time like strong bags made from plastic taking into account the cost of protecting the environment on the competitiveness of the community.
3. Product reformatting or reconditioning: This choice can be used by the organization when the performance of the product decreases and becomes less than expected, this operation may include making changes on some parts causing problems on the product performance.
4. Fixing and maintaining the product: The life of the product can be longer through the operations of maintaining and fixing some of the product parts.

5. Remanufacturing (recycling): Manufacturing a new product from old products by adding new parts instead of the old parts or by using some of standard raw materials to create new product by using the old one.

Many of the green products fail due to what is known by Green Marketing Myopia which happens when the green product fails in responding to the environmental looking of the green consumers and being inactive on them which makes them away from buying the product, especially for the green consumers paying attention to environmental characteristics of the product, so marketers have to follow the basics of green marketing to introduce green product responding the looking of green consumers (Zaharia et al., 2011).

## **2.6.6 The impact of green products on consumer behavior**

### **2.6.6.1 Product Influence Level on Purchase Decision**

The aim of the product is to satisfy the needs and desires of consumer, and when analyzing the relationship between producer and consumer on the marketing man considering three levels (Al-Minyawi, 2006):

1. Basic benefits level: The marketer should look for the benefits to be obtained from the product which means what the consumer buys.
2. Tangible aspects level: The marketer at this level tries to convert the basic benefits into tangible physical aspects, which include the form, quality and packaging.
3. Increasing value of the product level: Represents the ability of the marketer to provide additional services that increase the value of the product to the consumer.

The success of the product in the market is its acceptance by the consumer due to its characteristics and the following table highlights some of them.

**Table 2. 1** The most important characteristics in analyzing the relationship between the product and the consumer (Al-Minyawi, 2006).

<b>Characteristics</b>	<b>Details</b>
Compatibility	To what extent does the product conform to consumer behavior?
Trial	Can the consumer try the product on a specific basis and reduce the risk?
Observation	Is it possible to observe the product?
Speed	Time needed to gain experience about its benefits.
Simplicity	Is it easy to understand product use?
Comparative advantage	What makes the product better than competing product?
Symbolic commodity	What does the product mean to the consumer?
Marketing strategy	What role does the rest of the marketing mix play in creating a comparative advantage for the product?

The above table highlights the characteristics of the product that will affect the purchase final decision of the consumer and as follows:

- **Compatibility:** This refers to the degree of suitability of the product with the needs and desires of the consumer as well as economic, social and psychological determinants and thus trying this product.
- **Trial:** A product that is allowed to be tried without buying or buying in a limited quantity is more likely to affect the consumer by reducing risks during the purchase process.
- **Possibility of observation:** Products that consumers notice in an aesthetic context (both for POS and ways to promote them as celebrity-based advertisements) helps to speed their acceptance.
- **Speed:** Refers to how quickly consumers perceive the benefits of a product, because many of them are heading for instant gratification, which simulates the experience of the product that can be utilized quickly.
- **Simplicity:** A product that does not require long training to use helps to adopt it more.

- Comparative advantage: The comparative advantage is the most important characteristic of the product not only to induce the consumer to buy but to continue to buy and build brand loyalty.
- Symbolic commodity: It means the meant of the product or its brand to the consumer and the extent of the consumer experience in buying it.
- Marketing strategy: Price, distribution and promotion play as influential elements that support product policy for the consumer through their respective role in giving the product a certain significance.

#### **2.6.6.2 The relationship between green product and consumer behavior**

The relationship between the consumer and the green product can be limited to the following points (Othman, 2009):

- Consumer freedom: The process of consumer choice of the green product is based on his personal perceptions and not on the basis of imposed perceptions, thus the consumer has the freedom in choosing the green product.
- Reduce potential losses: the green product reduces the potential losses to the consumer.
- Economic effectiveness: Through the rational use of raw materials and the reduction of costs.
- Development: The green product is characterized by proper renewal to preserve the environment to meet the needs and desires of consumers in a continuous manner.
- Consumer education and information: The green product includes stickers across the cover that provide basic information to the consumer about the characteristics of the product and its expected effects on health and environment.
- Consumer protection principles: Protecting consumers from misleading, cheating and undesirable effects on health and environment due to consumption of products. Consumer protection movements have gone on to prosecute institutions that mislead and harm consumers, and the result is the appearance of a green product.



### **2.6.6.3 The effect of the green product category on the consumer behavior**

The green product category affects consumer behavior in terms of responding to consumers' long terms needs and protecting the environment, green products are classified according to the needs of consumers in the following categories (Armstrong & Kotler, 2010):

1. Impotent products: Products that do not have any immediate attraction nor environmental considerations and consumed for necessity like medicine which can have bad taste and harmful to the environment.
2. Pleasant products: Products that give immediate and significant satisfaction, but harm consumers and the environment in the long run.
3. Useful products: Products of low attraction but benefit consumers and the environment in the long run and protect the environment.
4. Desirable products: Products that give immediate satisfaction to the consumer and benefit in the long run and protect environment.

### **2.6.6.4 The impact of the green brand on the consumer behavior**

The brand has an important role in affecting consumer behavior, it often reflects the environmental trends of the organization. Organizations that adopt green marketing market their brand as offering green products, studies have shown that green consumers deal positively with the products of the institutes that take into account the conditions of protecting the environment in their production and marketing processes (Grant, 2008). Companies usually use many ways as a strategy to deal with the different parts of the manufacture in order to win competitive features through repositioning understanding of consumer within showing new products (Rahbar & Abdul Wahid, 2011). In the past few years, the green marketing notion has only been declared as packaging and putting stickers on the product and the strategy of incentive. Every community must proceed an estimate in order to have experience in how other communities are challenging with actions of green. There are five stages controlling consumer in deciding purchase process: benefit s needed to be felt, seeking for information, estimate of substitutional, decision of purchase and after purchase estimate. There are several factors affect the process of consumer purchase decision like public, educational, psychological, behavioral, marketing mix and place, all impact at some point. Several investigators tried to have a way to maintain the

environment. Due to the strong relation between behavioral features, demographic features and psychographic features, many investigators realized that might be the solution to maintain the environment. Researches after evaluating the affecting factors show that the psychological and public factors have more persuasive and support those actions in order to win new base that will engage the consumers to get a new intelligence (Wahid, Rahbar & shyan, 2011).

#### **2.6.6.5 Green Consumers**

Green consumer is one of the sub-notions that starts with the expression green, which has been noticed and has begun to be created because of the fact that the notion of environmental marketing has got into the marketing section. Green or environmentally aware consumers are the people whose aim is to maintain the environment themselves by using their strength of buying (Odabaşı, 1992). Green consumerism contains the investigations and estimate concerning products established on green exhaustion and illustrates the behavior of the new consumer regarding the maintaining of environment (Ottman, 1992). Green consumers are those whom their buying decisions can influence the environment. Green consumers' exhaustion decisions which have public liability contain the data investigate concerning the producers of the product they buy, their manufacture actions, training and raw materials that are applied in products and the influences of the products on the environment within the operation of use and after sending to waste (Coddington, 1993). There are many definitions of green consumers. Shrum et al. (1995) explained that green consumers are those who are concerned about new products, who investigate the data and who part their opinions about the products with other people. Because of that, in addition to being counted the leaders of opinion, we can say that they afford word-mouth-information. Green consumers are accurate buyers and they think a lot before buying. They initially think about environments' requirements when they are marketing, they are disbeliever to brand names and investigate the information relating the product. According to Elkington (1994) green consumers are those people who do not use products which have dangerous effect on peoples' health, which have bad influence on the environment while manufacturing, exhaustion and after exhaustion which exhaust a big quantity of energy which cause additional wastes, which contains materials that may put the humidity and environment in a great danger and which can influence the environment of the other countries badly.

### 2.6.6.6 Traditional Consumer

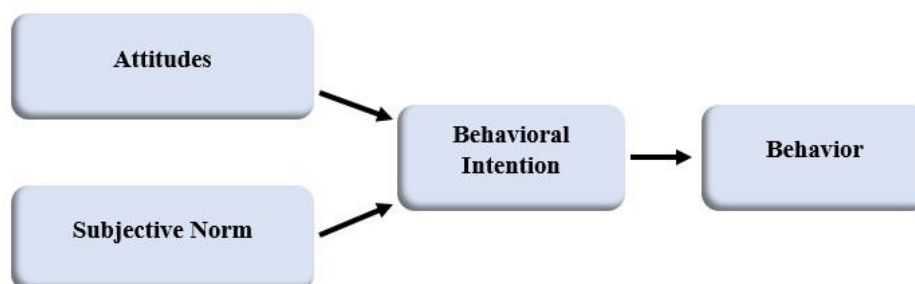
A consumer is an individual or a firm that consumes goods or services. A consumer is the one who uses the product and does not get it for reselling it. The consumer pays a price to get a product for the purpose of consuming it. Due to that, consumers play a huge role in the economic system of the nations. By the lack of consumers' demand, producers will face difficulties and lacking in sales, in which sales numbers is one of most important key motivations for producers. Moreover, the consumer is an important part of the chain of distribution (Gunelius, 2010). Scammell (2016) mentioned that consumer is restricted to living persons; which means not including organizations or businesses and also, excluded commercial users.

## 2.7 Factors Affecting Green Purchase intention

### 2.7.1 Theoretical Background of the Subject

#### 2.7.1.1 Theory of Planned Behavior (TPB) and the Theory of Reasoned Action (TRA)

TPB is the new version of the Theory of Reasoned Actions (TRA) that was developed in 1967, to be expanded later by Icek Ajzen and Martin Fishbein. In 1980. The theory was utilized to improve problems issued by human behavior. In the Theory of reasoned actions, the behavior is determined by behavioral intention and the intention is determined by two which are, the attitude and subjective norm. The attitude is determined by how the individual feels and believes about action and the consequences come from that specific action. The subjective norm is determined by how others think to act as a motivation to do a specific action.



**Figure 2. 3:** Theory of Reasoned Action Adopted From (Madden et al., 1992).

By 1988, the name of this theory was changed to be the (TPB) to sequel the lacks that were found in the first version (Humaira, 2018).

(TPB) is often used in various studies on consumer behavior. Usually this theory is used as an intervening variable to explain a person's intention which then explains the person's behavior (Humaira & Soepatini, 2018).

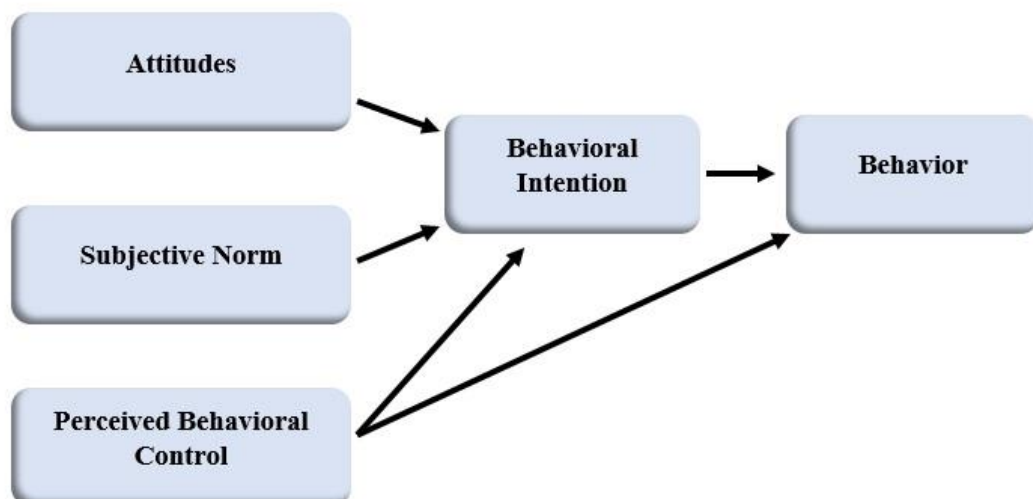
In accordance with Ajzen (2005), people follow the actions that are useful or give them some advantage, so they gather the information related and investigate them before making an intention that leads them to take a particular behavior.

Ajzen also described that a person's intention and behavior are determined by three factors which are the Attitude (Person's nature), Subjective Norm (social impact) on a person, and Perceived Behavioral Control (how a person control his/her believes for making intention and behavior).

A person's nature or attitude towards a behavior is related with respect to the consumer's belief and evaluation of that behavior. This evaluation could be positive or negative depends on the person.

Subjective norm is the second influence in which the person is influenced by social pressure groups to take a particular behavior.

The third one is Perceived Behavioral Control, in which the individuals own capability to accomplish behavior in which she/he is interested (Ajzen, 2005).



**Figure 2. 4:** Theory of Planned Behavior adopted from (Madden et al., 1992).

## **2.7.2 Independent variables and their effect on the consumers' purchase intention**

### **2.7.2.1 Environmental Concern**

Environmental concerns have started since the 1960s in which the "green" concept evolved, in which pollution concerns took place. In the 1990s, environmental concern has become one of the most important highlighted issues. Developed nations like the United States and Europe have perceived that customers are becoming aware of the environment's importance and are translating that in their buying decisions. Despite the fact that this issue has begun earlier, it has become much wider in the latest 15 years. This is due to the enhanced level of education of the consumers, social media development and problems related to the ozone layer, also, natural resources depleting and power crises.

The environmental concern may be seen as how a person responds to save the environment. Some researchers have presented that EC is linked with the personal behavior of a person and his own perception as what Bamberg (2003) mentioned. Pickett-Baker & Ozaki (2008) say that environmental concern does not have an effect on green purchase intention and green behavior.

For as Aman, Harun, & Hussein (2012) refer to that the attitude plays the role as a mediator between the environmental concern and GPI.

Environmental concern is the belief of a customer and the attitude he has towards the environment in his mind. EC can be studied from seven angles: concern for waste, wildlife, biosphere, duties, education, health, awareness of energy & environmental technology (Said et al., 2003).

EC refers to the one's sentimentality to environmental problems. It is also about the realization of the individuals about threats the natural resources and the climate is being exposed to (Ali et al., 2011). EC influences the consumers to buy green products, which resulted in an increased percentage of demanding environmentally friendly products (Aman, Harun, & Hussein, 2012).

Dunlap & Robert (2002) gave a definition to the environmental concern which stated that admitting problems in the environment is essential and according to that giving the solution for these problems by supporting environmentally friendly programs.

Green marketing is resulted from environmental concern and making or selling green products, this leads to an improved living environment and customer contentment. Studies have shown that EC allows achieving a higher willingness to buy and use green products (Uddin & Khan, 2016). EC gives the customers the motivation to contribute to saving the globe due to green products usage are one of the easiest ways to reflect responsibility towards the environment. According to research conducted by Liu, Vedlitz, & Shi (2014), it was stated that environmental concern was recorded to be higher in women rather than men, due to the socialization theory factor. Some other researchers have shown that the age factor affects environmental concern, that the younger people are more attracted to care and to be more disciplined towards the environment. That is because the increased awareness and level of education of the new generations.

Again, it was seen that environmental knowledge is one of the contemporary environmental problems as the proper action should be taken towards the environment and give the people' own role in the problem and forecast perceived consequences of their environmental performance (Arbuthnot 1977; Frick, Kaiser & Wilson 2004). According to the above, the first hypothesis was generated; H1: Environmental concern has a positive effect on the green purchase intention.

#### **2.7.2.2 Knowledge or Involvement**

Knowledge is considered an important factor that leverages the consumer's decision. Knowledge organizes consumers' movement in collecting the information and linking all evidence to make the last decision (Alba & Hutchinson, 1987; Syahbandi, 2012). Knowledge could be defined as the information an individual realizes and saves in his mind to be recalled later (Syahbandi, 2012).

Environmental knowledge is called as Eco-literacy. This kind of knowledge according to Fryxell & Lo (2003) is known as general knowledge about the things concerning the natural environment and facts related to it.

Environmental knowledge term indicates how the customers are aware of the environment and how they translate this knowledge in their actions in contributing to save the environment and protect it for the current and next living generations. Environmental knowledge (EK) could be classified into two types, the first type is a person's mental reasoning that makes him able to indicate the related problems and

giving ideas to address these issues. The second type illustrates the real move to tackle these problems and take the right action. Hines, Hungerford & Tomera (1987) have pointed out that knowledge is considered as the most important factor in predicting environmental action.

Consumer knowledge affects the behavior toward purchasing that make it an important aspect to be studied and examined by the marketers in order to understand the consumer's way of thinking.

In accordance with a study delivered by Gan et al. (2008), it was illustrated that environmental knowledge is improved by two shapes, the first is educating consumers in which makes them realize the effect of a particular product on nature and environment, and secondly, a consumer should know the mechanism of manufacturing the product itself in an eco-friendly technique. Julina (2013) stated that having knowledge about environmental matters has an impact on consumers' attitudes. According to what is mentioned by Barber et al. (2010), having or maintaining a strong environmental attitude is considered as one of the environmental knowledge applications. Referring to Noor et al.'s (2012) research, attitudes are positively being affected by consumers' environmental knowledge. Aman et al. (2012) indicated the opposite in their research, in which they rejected the impact of the environmental knowledge on the one's attitude. Another study conducted by Levine & Strube (2012) indicated that there is no linkage between EK and attitude. On the other hand, it was seen by Aman et al. (2012) that environmental knowledge leads to a positive intention for green products purchasing. With similar results represented by Mei et al. (2012) in their research, it was seen that EK has an impact on green products purchasing intention or willingness. Despite the researches above which indicated a positive linkage between EK and GPI, still, doubts are going on; in research handed by Henning & Karlsson (2011), their hypothesis was rejected which was about the positive correlation between environmental knowledge and the GPI.

According to what was examined, H2 is: Environmental knowledge has a positive effect on the green purchase intention.

### **2.7.2.3 Labeling**

Eco-labelling is defined by Tang et al. (2004) as a tool that uses logos to deliver the idea behind using such products to the consumers and the consequences of buying

these products to the environment. Eco-label, in Rex & Baumann (2006) point of view, is a source made for the consumers to help them take action and reduce the harmful impact on the environment in their purchasing decision. Sonderskov & Daugbjerg (2011) described eco-label as a product claim that is providing consumers with easy access information about the product and its effective specifications that could be helpful to the environment. In another research conducted by Sammer & Wustenhagen (2006), they defended eco-label by describing it as an important marketing tool in removing the misunderstanding between sellers and buyers regarding information about environmentally friendly products and hence, to overcome market failure. A conceptual model was developed by Rahbar & Abdul Wahid (2011) that examined the effectiveness of the eco-label, eco-brand and environmental advertising on the consumers' buying decision in Malaysia. It was proposed in this study that by utilizing these three marketing tools, it would help the consumers to identify green products and conventional ones and also will help them attain increased knowledge about green products.

A number of researchers have found a linkage between eco-label and the green purchasing. On the other hand, some studies have examined whether green labels are accepted or rejected as a motivating tool for consumers to make a positive decision towards green products (Wessells et al., 1999).

A study was conducted by D'Souza (2000) about the consumers' choice of "Dolphin-Safe" eco-label on some canned tuna brands in Australia, it was found that consumers prefer tuna cans with the "Dolphin-Safe" eco-label than other brands that do not have it on their cans. Sammer & Wustenhagen (2006) made an analysis regarding consumers' buying decision of washing machines and the effectiveness of the EU energy-labeled products in comparison with other specifications of the products such as the price, brand name, water consumption level. It was found that the energy label had a positive effect on consumers' buying decision of washing machines.

According to Thøgersen (2002), it was shown in his study that was conducted in four countries, that most of the respondents pay attention to eco-labels. It was also seen that women, graduated and young participants had a positive attitude toward eco-labeled products. It was also seen that women, graduated and young participants had a positive attitude toward eco-labeled products. According to Loureiro & Lotade (2005), it was



recorded that the population of the developed countries have a positive attitude towards paying a premium for eco-labeled products.

Due to the above, the third hypothesis has emerged: H3: Labeling has a positive effect on green purchase intention.

#### **2.7.2.4 Green Advertising**

In accordance with Davis (1994), environmental advertisement given by a firm should include three aspects, first, the green advertisement must show the firm's concern to the environment. Second, the advertisement should include how the firm is innovating activities to bring an actual picture of its environmental improvement work. Third, the advertisement identifies the specific environmental activities of the firm and its effect on saving the environment.

Chan (2004) described the green advertisement as that the given assumptions of the product that is being advertised has a positive contribution to protecting the environment, whether through the manufacturing process or through the final product outcome. Hence, the description given for the green advertisement in this study tries to affect the consumers' behaviors, which by giving an action and buying these products could contribute to the environment and reduce the harmful effect of using traditional products.

Davis (1994) indicated that consumers' reaction to the green advertisements was influenced by the previous fears or concerns perceived by a corporate regarding the environment. If consumers were positively interacting with the concerns of a firm towards the environment, then they would be positively interacting with the green advertisement and hence, with the firm itself and its products.

In a study conducted in two large cities of China; Beijing and Guangzhou about the consumers' reaction to green advertisements given by Chan (2004), it was shown that the credibility of the green advertisement and its effectiveness in saving the environment and the importance of the green product that is being advertised are the most important factors of GPI in China. Based on the above H4: Green Advertising has a positive effect on green purchase intention.

### **2.7.2.5 Subjective Norms**

Subjective norm is defined as the social pressure on the individual to carry out certain behavior. This social pressure is carried out by people who are close to the person such as family members, friends and relatives, as this pressure has an impact on the behavior of the individual (Ajzen, 1991). This norm will show how the consumer is morally responsible for other people by performing green buying decision (Barber et al., 2014).

Subjective norm plays an active role in affecting the consumers' perception by the effect of the close people's opinions and how this opinion influences an individual buying decision (Noble et al., 2009). Subjective norm also gives the individuals an idea about whether their selected behavior is preferred or not by society (Jager, 2000). This explains that the preferences of individuals are affected for the product has a negative feedback, then they will get negative feelings about that particular product. In the same way, if the product has positive feedback, then the customer's purchase intention will rise also (Kotler & Keller, 2006). SN has an important influence on an individual's final decision of purchasing and also, in consumer's attitude towards certain types of behavior (Han & Chung, 2014; Paul et al., 2016). SN has direct, significant linkage with attitude, perceived behavioral control, and purchase intention of artificial apparel (Kim & Karpova, 2010). SN has a big influence on the environmental linked behaviors (Ko, 2012; Zheng & Chi, 2015), also on getting or using second-hand clothes (Xu et al. 2014) and also, on using green products (Paul et al., 2016). Moreover, purchasing green sportswear may happen due to increased environmental awareness about the claims of the benefits that might be obtained by making eco-friendly apparel purchasing (Nam et al., 2017).

Due to the above, H5: Subjective norm has a positive effect on green purchase intention.

### **2.7.3 Dependent variable**

#### **2.7.3.1 Green Purchase Intention**

In accordance with the (TPB) conducted by Ajzen (1991), attitudes, subjective norm and perceived behavioral control will lead to the building of the intention, that this will lead to the actual behavior. A person's intention plays an important factor in the TPB, which leads to performing a specific behavior. Intentions are proof of how people are

interested or willing to make an action and how much effort they are giving to perform this behavior. In other words, the stronger a person's intention towards a specific behavior, the stronger to perform that behavior (Ajzen, 1991).

Nik Abdul et al. (2009) introduced green purchase intention as a person's aim to go for products which have a positive ecological effect rather than choosing conventional products in their purchasing process.

On the same approach, Chen & Chang (2012) Described GPI as the probability of a person to get a specific product due to his or her environmental needs.

Rashid (2009) mentioned that green purchase intention is that the person inclines to purchase green products over other conventional products.

## **2.7.4 Moderation effect**

### **2.7.4.1 Price Sensitivity**

Green products generally have higher prices than traditional products due to more costs occur in the manufacturing procedure (Ramirez & Goldsmith, 2009). D'Souza et al. (2006) showed that green consumers who considered the price as a modest element in their purchasing decision have a higher intention to pay a premium for green products.

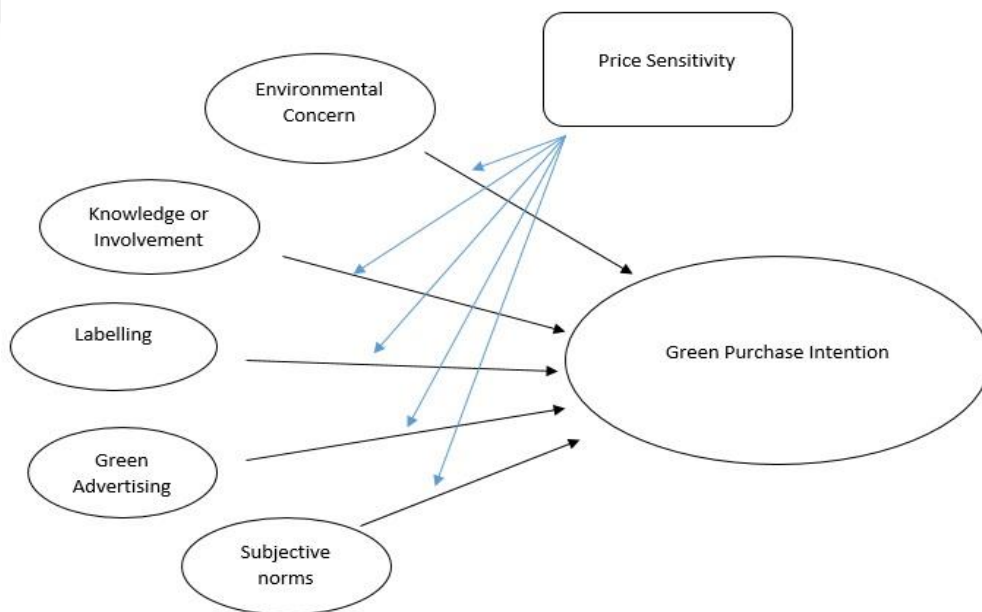
These results have been consistent with several other researches in which consumers who are classified as concerned in the environment are willing to pay more for having less damage to the environment (Laroche, Bergeron & Barbaro-Forleo, 2001; Rowlands, Scott & Parker, 2003; Michaud, Llerena & Joly, 2013). Aman et al. (2012) showed that green consumers are less sensitive to prices in their green purchasing procedure, due to the fact that they need safe products for paying that higher price.

However, not all green consumers are willing to pay extra prices for green products, and the price factor may affect their buying decision for green products (Anderson & Hansen, 2004). Consumers may be concerned in the environment and in being green, yet they might hesitate to spend more money amounts for green products. D'Souza et al. (2006) indicate that as green products' prices increase as purchasing of these products decreases. According to that, H6 is: Price sensitivity has a moderation effect between all independent variables to green purchase intention.

### 3. RESEARCH MODEL AND METHODOLOGY

#### 3.1 Research Model and Hypotheses

This study is aiming at studying the relationship between green purchase intention and the factors that are affecting green purchase intention such as environmental concern, knowledge, labelling, green advertising and subjective norms in terms of price sensitivity.



**Figure 3. 1:** The Conceptual Model of the Study

The hypotheses emerging from the literature and the model of the study are presented as below:

H<sub>1</sub>: Environmental concern has a positive effect on green purchase intention

H<sub>2</sub>: Involvement has a positive effect on green purchase intention

H<sub>3</sub>: Labeling has a positive effect on green purchase intention

H<sub>4</sub>: Green Advertising has a positive effect on green purchase intention

H<sub>5</sub>: Subjective norms have a positive effect on green purchase intention

H<sub>6</sub>: Price sensitivity has a moderation effect between all independent variables to green purchase intention.

### **3.2 Questionnaire Design**

Scales forming the questionnaire were developed during the literature review and were selected from valid and reliable scales from the literature. Participants were completed 251 questioned survey with a five-point Likert scale (1= Strongly disagree, 2= disagree, 3= Neither agree nor disagree, 4= Agree, 5= Strongly agree) in order to evaluate their opinion related to “Environmental concern”, “Involvement”, “Labeling”, “Green Advertising”, “Subjective Norms”, “Price Sensitivity” scales are examined in details at below in Table 3.1.



**Table 3. 1: Scales- Measurement Items**

<b>Construct</b>	<b>Measurement</b>	<b>Reference</b>
Environmental Concern	I am very knowledgeable about environmental issues	Mostafa, 2006
	I know more about recycling than the average person	
	I know how to select products and packages that reduce the amount of landfill waste	
	I understand the environmental phrases and symbols on product package	
	I know that I buy products and packages that are environmentally safe	
Knowledge /Information	I am concerned about environmental issues	Wang et al., 2017
	I pay close attention to green appeal information	
Green labels	I keep a watchful eye on new and popular green products	Issock et al., 2018
	I believe that the green labels are generally reliable	
	I think that green labels are generally dependable	
	Overall, I believe that the green labels are trustworthy	
	I believe that the green labels are delivered by renowned experts and institutions	
Green Advertising	I believe that the green labels go through a systematic inspection before being labeled	Richards, 2013
	I am often exposed to green advertisements	
	Green advertisements are necessary for environmental awareness	
Subjective Norm	Green advertisements accurately reflect a brand's environmental efforts	Minbashrazgah et al., 2017
	Most people who are important to me think I should buy green products	
	The trend of buying green products among people around me is increasing	
	People around me generally believe that it is better for environment to use green products	
Price Sensitivity	My close friends and family members would appreciate if I buy green products	Minbashrazgah et al., 2017
	Price information should be understandable and comprehensible	
	I know what I pay for a green product and what I get	
	Green product price information is complete, correct, and frank	
Green Purchase Intention	I am properly informed about the prices of green products	Jaiswal& Singh, 2018
	I would consider buying products because they are less polluting	
	I would consider switching to other brands for ecological reasons	
	I intend to switch to a green version of a product	

### **3.3 Sampling and data collection**

Data were assembled from 251 respondents. Convenience sampling is implemented to data and accumulated all through April and May 2019. A total of 251 questionnaires have been collected via Google online survey. Consequently, a complete of 251 responses have been used for further analyses. First 50 questionnaires were pre-tested in order to correct the mistakes of the draft questionnaire and control the reliability of the related scales.

To calculate the size of sample, formula proposed by Tabachnick & Fidell (2007) was used in the study. The formula is  $N > 50 + 8m$ . In the formula, N refers sample size, m refers number of independent variables. Based on this formula, required sample size for current research is defined as 98 (as the number of independent variables equals to six). Sample size is defined as 251 to exceed the minimum threshold.

## **4. ANALYSIS**

IBM SPSS 24.0 (Statistical Package for the Social Sciences) program was used for the analyses of the primary data collected. With demographic data, descriptive statistical analysis was conducted. Additionally, factor analysis and multiple regression analysis were conducted to test the research model respectively.

### **4.1 Descriptive statistics**

42.6% of the respondents (107 people) are male and 57.4% (144 people) are female. The majority of the participants (46.2%) are in the age group of 25-34 and 33.1% (83 people) are in the 18-24. 10.8% of the participants (27 people) belonged to the age group of 45 years and older. Therefore, it can be said that the people reached were predominantly a young mass.

56.6% of the respondents (142 people) are single and 43.4% of them are married (109 people). 68.5% (172 people) of the university graduates and 15.5% (39 people) has a master degree. It is also observed that almost 50% of the participants (121 people) have income distribution in the range of 250 USD-1000 USD and 9.2% (23 people) have an income of 2000 USD and more. 33.5% of the respondents (84 people) are working for private sector while 25.5% are student (64 persons) and 21.5% are working for public sector. A summary of demographic characteristics of respondents is provided in Table 4.1.



**Table 4. 1:** Descriptive Statistics for Demographics

	Frequency	Percent (%)		Frequency	Percent (%)
<b>Gender</b>			<b>Income</b>		
Male	107	42.6	Less than 250 USD	63	25,1
Female	144	57.4	250 USD-500 USD	60	23,9
<b>Age</b>			500 USD-1000 USD	61	24,9
Under 18	3	1,2	1000-2000 USD	44	17,5
18-24	83	33.1	More than 2000 USD	23	9,2
25-34	116	46,2	<b>Profession</b>		
35-44	22	8,8	Student	64	25,5
Above 45	27	10,8	Public sector employee	54	21,5
<b>Marital Status</b>			Private sector employee	84	33,5
Single	142	56.6	Housewife	14	5,6
Married	109	43.4	Retired	4	1,6
<b>Education</b>			Not working/Unemployed	31	12,4
primary school	1	0,4			
intermediate school	21	8,4			
Institute	18	7,2			
University degree	172	68.5			
Masters/PhD degree	39	15,5			
<b>TOTAL</b>	<b>251</b>	<b>100</b>	<b>TOTAL</b>	<b>251</b>	<b>100</b>

#### 4.2 Normal Distribution

Normality assessment is one of the prerequisite of parametric analysis. In order to conduct factor and multiple regression analyses, it is important to ensure that the given data is multivariate normal. All metric variables were tested with Kolmogrov Smirnov Normality test, and it has been confirmed that some of them distributed normally ( $p > 0,05$ ), such as the factors of environmental concern and subjective norms. Other variables violate the rule ( $p < 0,05$ ). According to the central limit theorem in statistics states that given a sufficiently large sample size, the sampling distribution of the mean

for a variable will approximate a normal distribution regardless of that variable's distribution in the population. In this study, considering the sample size of 251, it could be assumed that data is close to normality. Table 4.2 includes the results of normal distribution analysis.

**Table 4. 2:** Normal Distribution

<b>Tests of Normality</b>						
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Envconcernlast	.054	251	.074	.988	251	.033
Involvelast	.099	251	.000	.963	251	.000
Labellast	.112	251	.000	.972	251	.000
Greenadlast	.100	251	.000	.964	251	.000
Subjectivelast	.054	251	.072	.984	251	.007
Pricelast	.100	251	.000	.951	251	.000
Intentionlast	.111	251	.000	.954	251	.000

a. Lilliefors Significance Correction

### 4.3 Factor Analysis (Exploratory Factor Analysis)

Factor analysis is generally used to group the highly related variables, to extract new components called factors (Hair et al., 2006). The main objective of this analysis is to reveal the hidden structure of the data set and reduce the dimension of the data. For this reason, factor analysis was conducted to find out the number of different dimensions that the respondents of this study perceived comparing to the original data of the scale. Besides, other aim of conducting this analysis is confirming the theoretical content groups.

There are three main assumptions of factor analysis to be satisfied before interpreting the results. Kaiser-Meyer-Olkin Sampling Adequacy (KMO) checks whether the data is available for factor analysis, the threshold level for KMO is stated as 0.50 (Durmuş, et al., 2011). Bartlett's test of sphericity is a hypothesis testing that claims the correlation matrix is an identity matrix which implies there is no inter-correlation between variables. Consequently, Bartlett's test hypothesis should be rejected to

continue factor analysis. In social sciences generally 95% confidence interval is adequate for the analyses, and corresponding p-value is stated as 0.05. The third assumption checks the suitability of the variables separately, Anti-Image Correlation matrix diagonal values should be at least 0.50. In addition, for checking the instrument reliability, Cronbach's alpha measurement is needed to be examined and it should be over 0.70 (Nunnally, 1978).

In this research, factor analysis for all independent variables such as environmental concern, knowledge, labeling, green advertising, subjective norms and price sensitivity were performed. The results are shown in Table 4.3, 4.4 and 4.5.

To determine the dimensions of all independent variables in the reseach an exploratory factor analysis (EFA) with Principle Component Factoring and Varimax Rotations were conducted. Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity tests were performed to test the appropriateness of data for conducting factor analysis (Sharma, 1996). Result of the tests ((KMO=0.905), Bartlett's test (df=190, Approx.  $\chi^2= 2793,830$ , p=0.000)) were satisfactory.

**Table 4. 3:** KMO and Bartlett's Test Results

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,905
	Approx. Chi-Square	2793,83
Bartlett's Test of Sphericity	df	190
	Sig.	0,00

The diagonals of the anti-image correlation matrix were all over 0.50, supporting the inclusion of each item in the factor analysis. Factors with eigenvalues over one were retained and items with factor loadings below 0.50 (Price 2, 3, Green Ad 1, Subjective Norm2) and items with high cross loadings were excluded (Hair et al., 1998). As a result of the analysis, four dimensions were found. Four dimensions total variance is 62,31%.

By conducting exploratory factor analysis, it is found that environmental concern and involvement scales gathered together and ocur a new factor named as “environmental involvement”. The other factors are named as it is original in the literature as

“labelling, subjective norm and green advertising”. On the other hand, items of price sensitivity were spread into other factor loadings (Price 1) and some of them were valued under 0,50 (Price 2,3) and removed from the analysis. This situation highlights that one scale is totally out of analysis and removed from the model.

To test reliability of each construct, after factor analysis, reliability analysis was conducted. Cronbach Alpha values of each construct are presented in Table 4.4. Due to the analysis, all findings are above 0,70 which means all constructs were quite reliable (Cronbach alpha > 0,70)



**Table 4. 4: Factor Loadings of Factor Analysis**

Factor Name	Labels	Factor Items	Factor Loadings	% of variance	Cumulative %	Reliability
ENVIRONMENTAL INVOLVEMENT	envconcern3	I know how to select products and packages that reduce the amount of landfill waste	0,717			
	envinvolve1	I am concerned about environmental issues	0,691			
	envconcern4	I understand the environmental phrases and symbols on product package	0,675			
	envconcern2	I know more about recycling than the average person	0,666	17.505	17.505	0,864
	envconcern5	I know that I buy products and packages that are environmentally safe	0,644			
	envinvolve3	I keep a watchful eye on new and popular green products	0,636			
	envconcern1	I am very knowledgeable about environmental issues.	0,605			
	encinvolve2	I pay close attention too green appeal information	0,601			
	label2	I think that green labels are generally dependable	0,849			
	label1	I believe that the green labels are generally reliable	0,833			
LABELLING	label3	Overall, I believe that the green labels are trustworthy	0,759			
	label5	I believe that the green labels go through a systematic inspection before being labeled	0,669	17.221	34.726	0,900
	label4	I believe that the green labels are delivered by renowned experts and institutions	0,65			
	subjective1	Most people who are important to me think I should buy green products	0,778			
SUBJECTIVE NORMS	subjective3	People around me generally believe that it is better for environment to use green products	0,753	16.017	50.743	0,842
	subjective4	My close friends and family members would appreciate if I buy green products.	0,709			
	price1	Price information should be understandable and comprehensible	0,771			
GREEN ADVERTISING	greenad2	Green advertisements are necessary for environmental efforts	0,75	11.576	62.319	0,823
	greenad3	Green advertisements accurately reflect a brand's environment to use green products.	0,667			

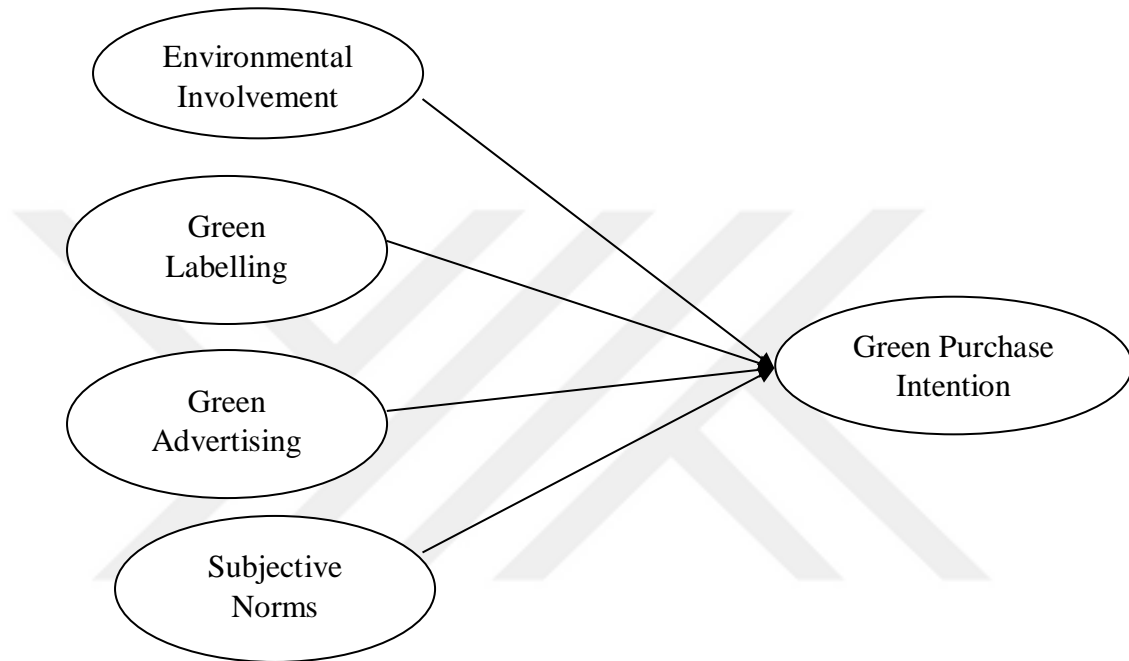
With the exclusion of the price sensitivity variable from the analysis, the hypotheses about the moderator variable were also removed from the list and the hypotheses were renewed as shown below.

H<sub>1</sub>: Environmental involvement has a positive effect on green purchase intention

H<sub>2</sub>: Green Labeling has a positive effect on green purchase intention

H<sub>3</sub>: Green Advertising has a positive effect on green purchase intention

H<sub>4</sub>: Subjective norms have a positive effect on green purchase intention



**Figure 4. 1:** The New Research Model

#### 4.4 Multiple Regression Analysis

Regression analysis is defined as a reliable method followed in statistics for identifying the relationship between independent variables and dependent variables. By regression analysis, which variables have an impact on the research topic of interest and also the degree of that impact can be observed.

In standard multiple regression, all the independent variables are evaluated in terms of its predictive power, over and above that offered by all the other independent variables and this approach is explain how much variance a set of variable explain dependent variable. On the other hand, there are some assumptions of multiple regression analysis such as sample size, multicollinearity, outliers, normality, linearity, homoscedasticity

and interdependence of residuals in order to implement related analysis to the data (Pallant, 2010).

Preliminary analyses were conducted to ensure no violation of the assumptions of sample size, multicollinearity, outliers and normality, linearity, homoscedasticity in order to conduct regression analysis to data.

According to the Anova table that was performed in Multiple regression analysis, the whole model of green purchase intention is statically significant ( $t= 1,918$ ,  $p=0.05$ ). In addition, according to the Coefficient table, green advertising ( $t=5,249$ ,  $p=0.00$ ), subjective norms ( $t= 2,984$ ,  $p=0.000$ ) and environmental involvement ( $t= 4,880$ ,  $p=0.003$ ) have an effect on green purchase intention in the 95% confidence interval. while green labeling ( $t= 1,555$ ,  $p=0.121$ ) has no effect on green purchase intention statistically ( $p>0,05$ ).

Independent variables of green advertising, subjective norms and environmental involvement explain the dependent variable green purchase intention by 48% ( $R=0,694$ ;  $R^2=0,481$ ,  $F= 57,026$ ,  $p=0,00$ ). In this relationship, the highest explanatory rate is owned by green advertising ( $\beta=0,310$ ), respectively subjective norms ( $\beta=0,116$ ) and environmental involvement ( $\beta=0,107$ ). However, the tolerance value of all variables is above 0.10 and the VIF value is less than 10 means that there is no multicollinearity between the independent variables (Pallant, 2010).

**Table 4. 5:** Results of Regression Analysis

	$\beta$	t value	p	F value	p	R	R <sup>2</sup>	Tolerance	VIF
(Constant)	0,962	1,918	.056	57,026	,000 <sup>b</sup>	,694 <sup>a</sup>	0,481		
Green labeling	0,057	1,555	.121					0,552	1,812
Environmental Involvement	0,107	4,880	.003					0,641	1,560
Subjective Norms	0,116	2,984	.000					0,679	1,472
Green Advertising	0,310	5,249	.000					0,566	1,768

According to the multiple regression analysis results,  $H_1$ ,  $H_3$ ,  $H_4$  were accepted ( $p< 0,05$ ), while  $H_2$  is rejected ( $p> 0,05$ ). Summary table of hypothesis tests are shown below (Table 4.6).

**Table 4. 6:** Summary Table of Hypothesis Tests

<b>Hypotheses</b>	<b>Path</b>	<b>Accepted/Rejected</b>
H <sub>1</sub>	Envinvolvement → GreenPurInt	Accepted
H <sub>2</sub>	Greenlabel → GreenPurInt	Rejected
H <sub>3</sub>	GreenAdvertising → GreenPurInt	Accepted
H <sub>4</sub>	Subjective Norms → GreenPurInt	Accepted





## **5. DISCUSSION AND CONCLUSION**

### **5.1 Discussion of Research Findings**

The relationship between green production and marketing is reflected in a production pattern that keeps in mind the conservation of the environment and natural resources in the production operations. This has led to the emergence of the concept of “Green Marketing”, that is considered a new phenomenon in marketing.

People are getting more aware of the environmental issues due to the changing lifestyle, enhanced education levels, emerging new means of communication, the development of media, and conducting awareness campaigns, this explains the results of the research that the intention to buy green products depends mainly on green advertising, as consumers are affected by the advertising as these advertisements are widely spread in almost everywhere starting with the TV ads to ads on social media, magazines, reaching the streets and many other places. This development influences consumers to contribute to the environment once they see these advertisements and try to make a difference and get benefited for themselves and for the environment and the whole world also. And as to what was seen in the literature also, green advertisement has a big effect on the green purchase intention.

As the education levels are getting higher, people are being more aware of the crises related to the environment, trying to conserve the natural resources and make an action in the aim of saving the environment, the research results also support the literature in means of and environmental involvement, that people are willing to buy green products for the sake of saving the environment and being aware of their important role and its impact on the environment.

In terms of subjective norm, people are getting influenced by what they hear and see from their close circle people, that will affect their final decision. In the case of green purchasing, according to the analysis results of this research, people are influenced to

buy green products according to the recommendations and opinions of their close friends and family members,

On the other hand, despite research numbers that have been supporting green labels as an effective factor in green purchasing, some other researchers had doubts about it. Some studies have examined whether green labels are accepted or rejected as a motivating tool for consumers to make a positive decision towards green products (Wessells et al., 1999). This may explain that people might need to be more involved in these labels and their meanings. A lot of the respondents weren't aware of these labels also, this indicated a rejection in the implemented hypothesis for this factor.

Price sensitivity effect couldn't be examined as it was removed from the model, this could be due to a problem in the structure of the sample size.

## **5.2 Research Limitation and Contribution**

Green marketing is a new phenomenon that needs to be highlighted more in order to achieve a positive goal in the interest of all. The lack of researches and literature on this subject was one of the biggest obstacles faced by the researcher. Moreover, the results of the research represent a specific sample of the population, that these results might get a difference in the case of applying on another sample in another place. In addition, the sample has been published in Iraq, a large number of respondents have questioned what green products and what they do, so some of them had no idea about the green products. For this reason, this research hopes to form a definition of green products and their role in achieving a better environment and what is green marketing and how to know green products in the hoping that this research will be instrumental in the development of future researches on this subject.

## **5.3 Suggestion for Future Researches**

In terms of suggestions for future research on this topic, the next researcher can include qualitative data besides the quantitative one in order to achieve more understanding of people's choices and behavior towards the green products. The future researcher can select a larger sample so the results can be more generalized. Also, a comparison between two areas could be included so as to understand the behavior of different cultures in means of being green and the percentage of awareness on environmental

issues and green products in both cultures. Also, the future researcher can expand the factors that affect the green purchase intention such as perceived benefits and risks.

Lastly, the future researcher can study how the different generations (Baby blooms, Generation X, Y and Z) perceive the intention to buy green products. The difference to buy green products between men and women also could be studied.



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## **APPENDICES**

**APPENDIX A:** Survey Questionnaire (English Version)

**APPENDIX B:** Survey Questionnaire (Arabic Version)

**APPENDIX C:** Main Survey Items

**APPENDIX D:** Etik Approval Form

## **APPENDIX A: Survey Questionnaire (English Version)**

### **Factors Affecting Green Purchase Intention for Consumers in the Moderation Effect of Price Sensitivity**

This is an MBA Thesis Survey for Haneen Waleed Arif Arif, a student at Istanbul Aydin University in Istanbul/ Turkey. The aim of this questionnaire is to understand the population's behavior towards green products or "Environmentally friendly products" Your information will be kept confidential and will be only used for academic purpose. The researcher appreciates the time you dedicate to filling the questionnaire. Thanks in advance.

#### **Demographic Questions:**

1. Gender:

- Male
- Female

2. Age Range:

- Under 18 Years
- 18-24 Years
- 25-34 Years
- 35-44 Years
- Above 45

3. Profession:

- Student

- Public Sector Employee
- Private Sector Employee
- Housewife
- Retired
- Not Working/Unemployed

4. Marital Status:

- Married
- Single

5. Education level:

- Primary School
- Intermediate school / High School
- Institute
- University Degree
- Master's Degree/ PHD

6. Monthly income:

- Less than 250\$
- 250\$-500\$
- 500\$-1000\$
- 1000\$-2000\$
- More than 2000\$

### Green Purchase Intention Questions:

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	2	3	4	5

#	Green Purchase Intention Questions	1	2	3	4	5
1	I am very knowledgeable about environmental issues					
2	I know more about recycling than the average person					
3	I know how to select products and packages that reduce the amount of landfill waste					
4	I understand the environmental phrases and symbols on product package					
5	I know that I buy products and packages that are environmentally safe					
6	I am concerned about environmental issues					
7	I pay close attention to green appeal information					
8	I keep a watchful eye on new and popular green products					
9	I believe that the green labels are generally reliable					
10	I think that green labels are generally dependable					
11	Overall, I believe that the green labels are trustworthy					
12	I believe that the green labels are delivered by renowned experts and institutions					
13	I believe that the green labels go through a systematic inspection before being labeled					
14	I am often exposed to green advertisements					
15	Green advertisements are necessary for environmental awareness					
16	Green advertisements accurately reflect a brand's environmental efforts					
17	Most people who are important to me think I should buy green products					
18	The trend of buying green products among people around me is increasing					
19	People around me generally believe that it is better for environment to use green products					
20	My close friends and family members would appreciate if I buy green products					
21	Price information should be understandable and comprehensible					
22	I know what I pay for a green product and what I get					
23	Green product price information is complete, correct, and frank					



24	I am properly informed about the prices of green products					
25	I would consider buying products because they are less polluting					
26	I would consider switching to other brands for ecological reasons					
27	I intend to switch to a green version of a product					



## APPENDIX B: Survey Questionnaire (Arabic Version)

العوامل المؤثرة على نية شراء الأخضر بالنسبة للمستهلكين تحت التأثير الوسيط لحساسية السعر

هذا هو استبيان ماجستير في إدارة الأعمال من حنين وليد عارف عارف، طالبة في جامعة اسطنبول آيدن في اسطنبول/ تركيا. يهدف هذا الاستبيان إلى فهم سلوك السكان تجاه المنتجات الخضراء أو "المنتجات الصديقة للبيئة". سيتم الحفاظ على سرية معلوماتك وسيتم استخدامها فقط للأغراض الأكاديمية. تقدر الباحثة الوقت الذي تخصصه لملء هذا الاستبيان. شكراً لك مقدماً.

### الأسئلة الديموغرافية:

1. الجنس:

ذكر

انثى

2. الفئة العمرية:

أقل من 18 سنة

18 – 24 سنة

25 – 34 سنة

35 – 44 سنة

45 سنة فما فوق

3. المهنة:

طالب

موظف حكومي

موظف قطاع خاص

○ ربة منزل

○ متقاعد

○ بدون عمل

4. الحالة الاجتماعية:

○ متزوج

○ اعزب

5. المستوى التعليمي

○ التعليم الابتدائي

○ الدراسة المتوسطة/ الاعدادية

○ معهد

○ دراسة جامعية

○ دراسات عليا/ دكتوراه

6. الدخل الشهري

○ اقل من \$250

○ \$250 – \$500

○ \$500 – \$1000

○ \$1000 – \$2000

○ اكثر من \$2000

أسئلة النية الشرائية للمنتجات الخضراء

أوافق بشدة	أوافق	لا أوافق ولا أرفض	أرفض	أرفض بشدة
5	4	3	2	1

#	أسئلة النية الشرائية للمنتجات الخضراء	1	2	3	4	5
1	انا على دراية واسعة بالقضايا البيئية					
2	انا اعرف اكثر من الشخص العادي عن اعادة التدوير					
3	انا اعرف كيفية اختيار المنتجات التي تقلل من كمية النفايات					
4	انا افهم العبارات والرموز البيئية على غلاف المنتج					
5	انا اعلم بانني اشترى المنتجات الآمنة بيئياً					
6	انا مهتم بشأن القضايا البيئية					
7	انا ابدي اهتماماً كبيراً بشأن المناشآت بصدد المنتجات الصديقة للبيئة					
8	انا اقوم بمتابعة المنتجات الخضراء الجديدة والمشهورة					
9	اعتقد أن العلامات الخضراء هي موثوقة بشكل عام					
10	اعتقد ان العلامات الخضراء هي جديرة بالثقة					
11	عموماً، اعتقد أن العلامات الخضراء هي جديرة بالاعتماد					
12	عتقد أن العلامات الخضراء يتم تسليمها من قبل خبراء ومؤسسات مشهورة					
13	اعتقد ان العلامات الخضراء تمر بفحص منظم قبل أن يتم وضعها					
14	انا غالباً ما اكون متعرضاً للاعلانات الخضراء					
15	الاعلانات الخضراء هي ضرورية للتوعية البيئية					
16	تعكس الاعلانات الخضراء بدقة الجهود البيئية للعلامة التجارية					
17	معظم الناس المقربين بالنسبة لي يعتقدون بأنه يجب عليّ ان اشترى المنتجات الخضراء					
18	يتزايد الاتجاه نحو شراء المنتجات الخضراء بين الناس من حولي					
19	يعتقد الناس من حولي بشكل عام أنه من الافضل للبيئة استخدام المنتجات الخضراء					
20	سوف يقدر اصدقائي المقربين وافراد عائلتي اذا قمت بشراء المنتجات الخضراء					
21	يجب أن تكون معلومات الاسعار مفهومة وشاملة					
22	اعرف ما ادفعه مقابل المنتج الاخضر واعلم ما احصل عليه					
23	المعلومات حول اسعار المنتجات الخضراء هي كاملة وصحيحة وصریحة					
24	انا تماماً على علم حول اسعار المنتجات الخضراء					
25	انا افكر في شراء المنتجات لأنها اقل تلويثاً للبيئة					
26	انا من الممكن ان افكر في التحويل الى علامة تجارية اخرى لاسباب متعلقة بالبيئة					
27	انا اميل للاتجاه للتبديل نحو الاصدار الاخضر للمنتج					

## APPENDIX C: Main Survey Items

Construct	Measurement	Reference
Environmental Concern	I am very knowledgeable about environmental issues	Mostafa, 2006
	I know more about recycling than the average person	
	I know how to select products and packages that reduce the amount of landfill waste	
	I understand the environmental phrases and symbols on product package	
	I know that I buy products and packages that are environmentally safe	
Knowledge /Information	I am concerned about environmental issues	Wang et al., 2017
	I pay close attention to green appeal information	
Green labels	I keep a watchful eye on new and popular green products	Issock et al., 2018
	I believe that the green labels are generally reliable	
	I think that green labels are generally dependable	
	Overall, I believe that the green labels are trustworthy	
	I believe that the green labels are delivered by renowned experts and institutions	
Green Advertising	I believe that the green labels go through a systematic inspection before being labeled	Richards, 2013
	I am often exposed to green advertisements	
	Green advertisements are necessary for environmental awareness	
	Green advertisements accurately reflect a brand's environmental efforts	
Subjective Norm	Most people who are important to me think I should buy green products	Minbashrazgah et al., 2017
	The trend of buying green products among people around me is increasing	
	People around me generally believe that it is better for environment to use green products	
	My close friends and family members would appreciate if I buy green products	
Price Sensitivity	Price information should be understandable and comprehensible	Minbashrazgah et al., 2017
	I know what I pay for a green product and what I get	
	Green product price information is complete, correct, and frank	
Green Purchase Intention	I am properly informed about the prices of green products	Jaiswal& Singh, 2018
	I would consider buying products because they are less polluting	
	I would consider switching to other brands for ecological reasons	

I intend to switch to a green version of a product

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## APPENDIX D: Etik Approval Form



T.C.  
İSTANBUL AYDIN ÜNİVERSİTESİ REKTÖRLÜĞÜ  
Sosyal Bilimler Enstitüsü Müdürlüğü

Sayı : 88083623-020  
Konu : HANEEN WALEED ARIF ARIF Hk.

Sayın HANEEN WALEED ARIF ARIF

Tez çalışmanızda kullanmak üzere yapmayı talep ettiğiniz anketiniz İstanbul Aydın Üniversitesi Etik Komisyonu'nun 11.03.2019 tarihli ve 2019/04 sayılı kararıyla uygun bulunmuştur.

Bilgilerinize rica ederim.

**e-imzalıdır**  
Prof. Dr. Ragıp Kutay KARACA  
Müdür

27/09/2019 Enstitü Sekreteri

NESLİHAN KUBAL

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## RESUME

**Name Surname:** Haneen Waleed Arif Arif

**Place of Birth:** Baghdad/ Iraq

**Date of Birth:** January 19, 1993

**E-Mail:** [haneen.nostalgia@gmail.com](mailto:haneen.nostalgia@gmail.com)

### **Education:**

- **Bachelor of Science:**

**Electromechanical Engineering Department -  
Power and Energy Engineering Branch / University of Technology Baghdad**

| Sep 2010 – Jun 2014 | Baghdad / Iraq

**Degree:** Bachelor of Science



- **Master's Degree:**

**Istanbul Aydin University**

| Sep 2017 – Nov 2019 | Istanbul / Turkey

**Degree:** Master of Business Administration

**Major in Business Administration | GPA: 3.75 / 4.0 |**

- **Work Experience:**

**CANADIAN AID ORGANIZATION FOR INTERNATIONAL SOCIETY  
REHAB (CAOFISR)**

| 1/8/2014 – 23/05/2016 | **Field Supervisor Engineer. Baghdad / Iraq**

| 23/05/2016 – To Present | **Social Media Specialist. Istanbul / Turkey**

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