Determinants on Green Product Purchasing Intention: The Case of Recycled Plastic Products

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ABSTRACT

Human kind has the majority share of creating waste and this waste endangers the life of many living now and should be considered as a great threat for next generation if not managed deliberately. Simultaneously ethical thinking and to a recent trend green consumerism had become an interesting topic for scholars to follow and is clearly requires a great understanding of purchasing intention for ultimate users of such products. Although it is important to note that the subject of green consumer is not a new topic.

In this research a green consumer's attitude and behavior towards green product purchase are examined. Katz (1960) proposed a behavioral theory known as the functional attitude theory. Functional attitude theory withholds that attitudes evolve in individuals as a mean to serve their goals, and all attitudes intentionally minister this basic function to a proportion. Aiding from this theory in this research it is aimed to demonstrate reasons behind attitude and purchase intentions made by consumers of environmental friendly matters such as recycled plastic substances. Otoo et al. (2018) stated that waste is rich in water, nutrients, energy and organic compounds, thus it is a suitable input alternative for (recycled) production, that's the main reason why recycled plastic product is chosen as the main green product.

The structure of this dissertation begins with a literature review and compiling solid information to form hypotheses. The main objective of this dissertation is purchase intentions of recycled plastic products. This behavior arouse from an affective attitude that is also measured. Merely this attitude comes from three main functions and these

functions include utilitarian, social-adjustive and value-expressive. As a moderating factor the effect of emotional value is also examined.

The data was collected from 550 respondents sampled from country of Iran. The content of findings were also included in this dissertation followed by discussion about the objectives of the research from the findings. In this research 3 sets of functional attitude that serve as a function are found to be having a positive effect on the affective attitude that leads to purchase intention with the exception of emotional value moderating the expressive functions.

Nonetheless, similar to any social science research, limitations and future implementations of this research were also exhausted in the final chapter.

Keywords: Attitude, Behavior, Emotional Value, Functional Attitude Theory, Green Consumer, Green Marketing, Green Purchase Intetion, Purchase Intention, Recycled Plastic Products, Social-Adjustive, Utilitarian, Value-Expressive.

ÖZ

İnsanlığın yeryüzünde atık yaratma payı oldukça büyüktür. Bu atıklar şu anda yaşayan bir çok insanın hayatını tehlikeye atmaktadır ve bu durum bilinçli bir şekilde yönetilmezse gelecek nesiller için büyük bir tehdit olacağı düşünülmelidir. Aynı zamanda, etik düşünme ve son zamanların gelişen trendi yeşil tüketicilik, araştırmacıların takip etmesi ve araştırması için ilginç bir konu haline gwlmiştir. Ayrıca bu ürünlerin nihai kullanıcıları için satın alma niyetinin sebebi büyük bir anlaşılmayı açıkça gerektirmektedir. Tüm bunlara ilaveten yeşil tüketici konusunun yeni bir konu olmadığını belirtmekte önemli bir fayda vardır.

Bu araştırmada yeşil tüketicinin yeşil ürün alımına yönelik tutumu ve davranışı incelenmiştir. Katz (1960), işlevsel tutum teorisi olarak da bilinen Davranışsal teoriyi önermiştir. İşlevsel tutum kuramı, tutumların bireylerde hedeflerine hizmet etmek için bir araç olarak geliştiğini ve tüm tutumların bu temel işlevi bilerek orantılı olarak aldığını kabul eder. Bu araştırmada bahsedilen teoriden yararlanılarak, geri dönüştürülmüş plastik maddeler gibi çevre dostu olan maddelerin tüketicilerin davranışsal tutum ve satın alma niyetlerinin ardındaki nedenlerin gösterilmesi amaçlanmaktadır. Otoo ve diğ. (2018), atıkların, sularda, besin maddelerinde, enerji ve organik bileşenlerde zengin olduğunu, var olan durumun (geri dönüştürülmüş) üretim için uygun bir girdi alternatifi olduğunu, bu nedenle de ana yeşil ürün olarak geri dönüştürülmüş plastik ürünün seçilmesi temel sebettir.

Bu tezin yapısı, bir hipotez oluşturmak için sağlam bir bilgi derlemesi ve derlenmesi ile başlar. Bu tezin asıl amacı geri dönüştürülmüş plastik ürünleri satın alma eğilimidir.

Bu davranış, aynı zamanda ölçüllmüş de olan duygusal bir tutumdan da kaynaklanmaktadır. Bu tutum sadece üç ana işlevden meydana gelir. Bu işlevler faydacı, sosyal ayarlayıcı ve değer ifade edici olarak isimlendirilirler. Ilımlı değiken faktör olarak duygusal değerin etkisi de ayrıca incelenmiştir.

Veriler, İran ülkesinden örneklenen 550 katılımcıdan toplandı. Bulguların içeriği de bu tez çalışmasına dahil edildikten sonra, ardından araştırmanın bulgularından elde ettiği amaçlar tartışıldıı. Bu araştırmada, işlev olarak hizmet eden 3 takım işlevsel tutumun duygusal degerler hariç, satın alma eğilimini yükseltmeye sebep olan duygusal tutum üzerinde olumlu etkiye sahip oldukları bulgusuna ulaşılmıltır.

Bununla birlikte, herhangi bir sosyal bilim araştırmasına benzer şekilde, bu araştırmanın kısıtlamaları ve gelecekteki uygulamaları da sonuç bölümünde sonlandırılmıştır.

Anahtar Kelimeler: Tutum, Davranış, Duygusal Değer, İşlevsel Tutum Teorisi, Yeşil Tüketici, Yeşil Pazarlama, Yeşil Satın Alma, Satın Alma Niyeti, Geri Dönüşümlü Plastik Ürünler, Sosyal Düzeltici, Faydacı, Değerleyici.

DEDICATION

This dissertation is dedicated to my grandmothers and grandfathers who were my idols. They represented a generation whom value work and education and they were always one step ahead of their colleagues, and for this reason I choose to follow the same steps to reach self-actualization. This dissertation is a devotion to my parents, they are not only the heroes in my life, yet they are the one that got me inspired, thought me to do the right thing and never lost hope with me. My lovely wife, Asal, she's playing an important role in my life, one that always stand by my side and supports me with endless love and energy.

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My supervisor Asst. Prof. Dr. Emrah Öney opened new doors to me. With his patience and guidance I reach to this stage and I am truly glad that I had this opportunity to be his student and more importantly discover this reliable friendship with him.

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INTRODUCTION AND AIMS OF THIS RESEARCH

1.1 Introduction

Human kind has the majority share of creating waste and this waste endangers the life of many living around the globe now and should be considered as a great threat for next generation if not managed deliberately. As one of the available solutions, waste management present activities, tools and solution to council and aid governments to manage waste to final disposal (Department of Energy, 1999). Among tools utilizing waste management, waste hierarchy is considered as an apparatus in method estimation of environment protection with resource and energy consumption to most favorable to least favorable actions (Hansen et al., 2002). The hierarchy classifies waste management strategies as: (1) Reduce, (2) Reuse and (3) Recycle. Waste recovery or in simplified term recycling, is the procedure of using separated waste substances as input material to produce newer products. For further reading it is suggested to follow the works of Ewadinger and Mouw (2005); Tucker (2006); Weeks (2006). Nowadays, according to Singh et al. (2017) to great extend industries are witnessed to grow concern for environment, and recycled materials are considered as alternative leading feasibility and waste reduction.

Many objections during past decades resulted in awareness for sustainability and environment protection which both are now a concern for governments and companies around the world, and in recent years, the environment itself has been center of public

attention as an issue (Rex and Baumann, 2007). Simultaneously ethical thinking and to a recent trend green consumerism had become an interesting topic for scholars to follow and is clearly requires a great understanding of purchasing intention for ultimate users of such products. Although it is important to note that the subject of green consumer is not a new topic. In 1987, through the publication by United Nations, sustainable development with the title of "Our Common Future" was implicated (Mebratu, 1998). Kinoti (2011) explains organizational obligations is evidence that products are becoming green products and marketing activities are focused on Green Marketing.

Before further investigation on green marketing, green consumer and green product, next a brief background on the theory is discussed and the objective of the research on purchasing intention.

1.2 Theoretical Background and Functional Attitude Model on Purchasing Intention

Persuasion is defined as an attempt to influence a person's attitudes, intentions or behaviors in a patronage term (Gass et al., 2010). In marketing, persuasion is often referred to the process focusing the change of an individual's attitude or behavior toward goods and services, by means such as writings, spoken words or visual stimuli, thus purchasing intention can be defined as a succeeding purposed procedure to purchase a specific product or service. Morinez et al. (2007) defined purchase intention as a certain condition an end user is prone to purchase a particular product, and therewithal the probability or willingness of a consumer to exhibit propensity to a green product over existing bespoke alternative is referred to green purchase intention (Rashid, 2009). Carrigan et al. (2001) extrapolated findings about green purchase

intention in terms of an ethical behavior. They asserted that majority of respondents in their purchase behavior showed a small proportion of consideration. Scholars like Jain and Kaur (2006) believed demographic characteristics for green consumer profiling had been preferably examined the most. To support their argument, there are research findings that have identified women, young people (Martinsons et al., 1997; Lee, 2008), and people with relatively high education and income levels (Straughan and Roberts, 1999) as the most likely individuals to engage in green consumption behavior. Another ratiocination and reasoning believe proof that ethically minded consumers or in simple words green consumers feel a responsibility towards the environment and/or to society, and seek to express their values through ethical consumption and purchasing (or boycotting) behavior (De Pelsmacker et. al, 2005).

With all being said to adjust green product purchase intentions in this academic research, these mentioned demographic characteristics and other attributes such as person, attitude domain and situations characteristics should be thoroughly examined by precise instruments and constructs as initial considerations when investigating an affective attitude to a certain behavior. These can be described as fundamentals provide significant proof as described by Herek (1986), to show attitudes function towards a specific behavior as either evaluative or expressive. These will be discussed in following chapters of this dissertation with the research model in details.

1.2.1 Functional Attitude Theory on Purchasing Intention

Scholars such as Dodds et al. (1991) suggests that an individual change purchase intention due to situations and attitudes signifying: (1) personal preferences to others (2) obedience to others' expectation (3) unpredictable situations. To be more precise Kotler (2000) finds purchase intention is effected by individual attitudes and

unpredictable situations. Moreover, goals are met once attitude are blossomed in individuals (Katz, 1960, Smith et al., 1956) and all attitudes to a degree are likely serve this basic function. In addition, attitudes scholars find a number of other motives (Shavitt and Nelson, 2002). This theory is known as the Functional Attitude Theory (FAT).

This dissertation draws on Functional Attitude Theory (FAT) originally proposed by Katz (1960) and Smith et al. (1956), later on modified by Herek (1986) as neofunctional attitude. Herek (1986) proposes that attitudes serve as evaluative and expressive functions. His line of work is considered as the core model used in this study. The history and background of the model is fully described in second chapter of this dissertation under literature review.

1.2.2 Green Marketing

Henion and Kinnear (1976) first defined the concept of Green Marketing. Green marketing often criticized as a more managerial term, earning a win-win for both firms and environment (Grant, 2010). Soonthonsmai (2007) defined it as all organizations perusing with environmental concern or green issues through the products or services that are environmentally sound and fabricate consumers' and society's satisfaction. According to Singh and Pandey (2012), variety of terms has become a phenomenon in normal life including: (1) green revolution, (2) going green, (3) environmental protection, (4) sustainable life style, (5) sustainable development, (6) protecting the earth. To support this statement, it is argued that, scholars such as Hart and Milstein (1999) and, Ginsberg and Bloom (2004) claimed that performance and sustainability grows with green marketing.

Relationship between sustainability and green marketing is the result of a combination between environmental concerns and consumer satisfaction through marketing of relevant goods and services (Polonsky, 1994). Nevertheless that are always issues when practicing green marketing (Kilbourne, 2010). The following table gives a better illustration towards understanding green marketing and conventional marketing in terms of comparison. For further reading it is suggested to refer to the work of Shamdasani et al. (1993).

Table 1.1: Comparison between Green Marketing and Conventional Marketing

Categories	Green Marketing	Conventional Marketing
Consumer	Consumers with concern for the environment	Individuals with lifestyle
Products	"Cradle-to-cradle" flexible services	"Cradle-to-give" fit in all instances
Marketing and Communication	Educational values	Selling oriented and benefits
Corporate	Proactive, Interdependent, Cooperative, Holistic, Long-term	Receptive, Independent, Competitive, Short-term, profit maximizing

1.3 Aims and Objectives of the Research

In this research, the principal aim is to understand specific determinants that result in purchasing intention in consumers of green products specifically recycled plastic products. This is an attractive subject for researchers and in order to understand intentions of consumers many researches had been undertaken in preferably field of

marketing arguing that consumers' attitudes in majority of occasions have not yet been vividly studied, even though evidence support strong concerns for environment by green consumers. Study on Functional Attitude Theory and literature on Iranian population is very limited and empirical studies are generally allocated with luxury products and commodity products. This study can be a referral outset.

Plastic is chosen as the main product of study because for a sustainable nation and the current way of living plastics are the most important substances (Andrady and Neal, 2009).

With the help of descriptive and quantitative research it is possible to understand characteristics of relevant groups (Malhotra, 2011) thus this study is undertaken in the similar fashion to address determinants leading to purchase behavior among green consumers. The following determinants will be covered in this dissertation:

(1)   Functional Attitude Theory in literature

(2)   Green consumer and green product in literature

(3)   The relationship between Utilitarian function and purchase intention

(4)   The relationship between Social-Adjustive function and purchase intention

(5)   The relationship between Value-Expressive function and purchase intention

(6)   The effect of Emotional Value on Value Expression

(7)   The relationship between Attitude and purchase intention

1.4 Sampling and Data Collection

Anent the aim of the research, a survey based questionnaire was prepared and a non-probability sampling technique was employed with 550 respondents. This questionnaire is divided into three main parts:

(1) Part 1: A filter question to exclude respondents who have not purchased a green product.

(2) Part 2: Questions related to utilitarian function, social-adjustive function, value-expressive function, emotional value, attitude and purchase intention are asked from respondents.

(3) Part 3: Demographic questions to evaluate respondents' relationship with the topic in hand.

1.5 Research Hypotheses

With referral to what have been discussed the following hypotheses are proposed in this research:

H1: Utilitarian function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.

H2: Social-Adjustive function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.

H3: Value-expressive function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.

H4: Emotional value has a positive moderating effect on relationship between social-adjustive function and affective attitude.

H5: Emotional value has a positive moderating effect on relationship between value-expressive function and affective attitude.

H6: Attitude towards green products has a significant and positive effect on purchasing intentions.

1.6 Structure of Thesis

Resembling a marketing research, this dissertation contains of six chapters listed in table 1.2.

Table 1.2: Structure of Thesis

Chapter 1	Introduction
Chapter 2	Literature Review
Chapter 3	Conceptual Framework
Chapter 4	Methodology
Chapter 5	Data Analysis and Discussion
Chapter 6	Conclusion and Recommendations

Chapter 2 covers the literature review including detailed explanation about theories that are used for behavior studies. The covered theories are (1) expectancy-value theory, (2) theory of reasoned action, (3) theory of planned behavior and (4) functional attitude theory. The functional attitude theory is then examined in detail along with fundamentals and neofunctional attitude functions categories and their impact on matching hypothesis. With regards of this dissertation's aim, green market, green

consumer and green product are also explained in detail in this chapter and finally the emotional value which act as the moderating factor in research model is also addressed.

Chapter 3 covers the conceptual framework. In this chapter hypotheses that are being tested are included and defined accordingly.

Chapter 4 covers methodology, including research design, sampling method, sampling technique, sampling size and data collection procedure, along with scales used in questionnaire design are included in this chapter.

Chapter 5 covers the analysis, including descriptive analysis, with correlation analysis report, independent samples t-test on gender, ANOVA, principle component analysis and partial least square (PLS) analysis.

Chapter 6 covers the findings and implementations, limitations and future research suggestions.

Chapter 2

LITERATURE REVIEW

2.1 Introduction

Purchasing intention is defined by American Marketing Association (AMA) as a specific product or service buying arrangement that is planned via a choice/decision procedure. It is categorized to be a behavioral intention, where through a choice/decision procedure reflecting the consequences of the purchase (action), an intellectual behavior is planned. According to Berkman et al, (1999) any behavior is reverberated by relatively consistent attitudes. To interpret this, the purchase intention is explained by attitude-behavior consistency. Several consumer factors (resource, experience, state vs action orientation), situational factors (intervening time, unforeseen events, message repetition, and social influences), and measurement factors (level of specificity and timing of measurement) are determinants. Furthermore all mentioned factors are vulnerable to a marketing strategy (Asiegbu et al., 2012). Although all these factors are important to learn, nonetheless these are not the aspects that are going to be covered in this dissertation, thus for further information mentioned articles can be referred to.

In social sciences attitudes leading to a certain behavior are measured by determination of affective response with some models including: Expectancy-Value Theory (EVT), Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB) and Functional Attitude Theory (FAT). This chapter covers literature review on each model in the

following sections. Then development of FAT is clearly explained and steps necessary in matching hypothesis to theory is provided. Following a report of literatures covering green consumer, green product and recycled plastic products. And the last topic of literature review is exclusive to emotional value.

2.1.1 Expectancy-Value Theory

The first theory to be covered is Expectancy-Value Theory. It was originally introduced by John William Atkinson better known as Jack Atkinson between 1950s and 1960s and later on developed by Jacquelynne Sue Eccles (1983) into the education field.
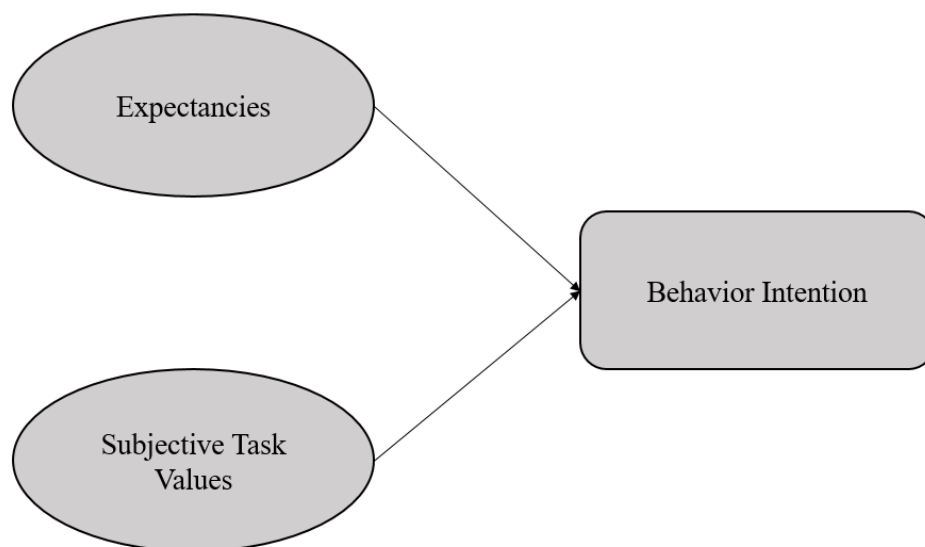
Figure 2.1: EVT Model Illustration

Based on the work of Eccles (1983) and Wigfield, (2002), general form of this theory includes two factors. The first factor is the expectancies; in case of short or long-term it may be defined as autonomous individuals' beliefs. And, the second factor is subjective task values that may be defined as the desire of action and reason behind the motivation. This theory had drawbacks and it required work for development and thereupon became a starting point for other theories to arise.

2.1.2 Theory of Reasoned Action

In early 1970s to 1980s Ajzen and Fishbein (1980) had extended the theory of Expectancy-Value into Theory of Reasoned Action or shortly abbreviated as TRA. TRA is considered as a combination of attitude, belief and intention model by some scholars like Netemeyer et al., (1993). The ratiocination about this theory proposes that predicting a specific behavior is personated by an intention and a certain attitude is under the effect of personal perception and how subjective an intention is to others.
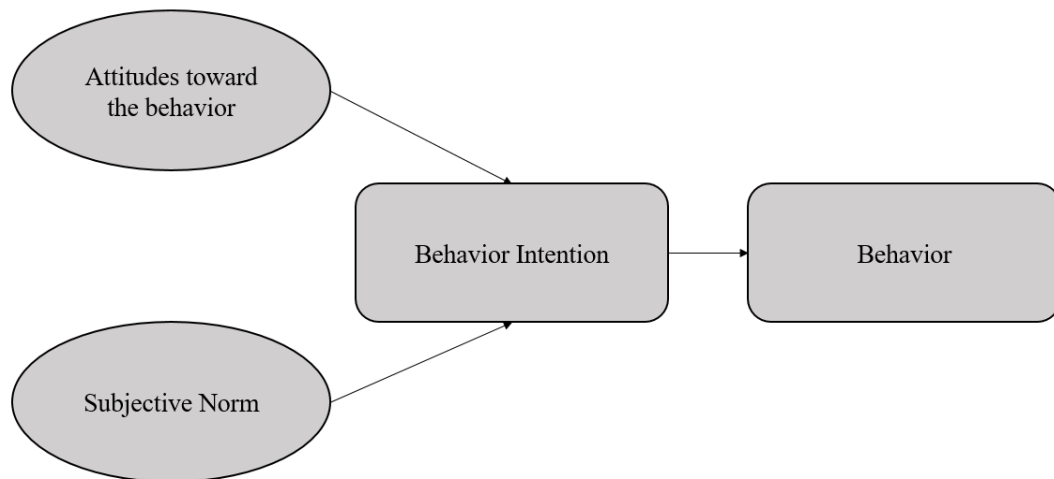
Figure 2.2: TRA Model Illustration

As shown in figure 2.2 the model consists of: (1) behavioral intention, (2) attitude, and (3) subjective norm. Later as an extension, Ajzen and Fishbein (1980) affirmed that a behavior can be specified by individual's intention leading to the behavior and in turn examined intention is merely a subordinated mean of his/her attitude toward the behavior.

However this theory had been under critics by scholars including Sheppard et al. (1988). They pointed out that a set of particular activities are limited when a consumer perform the behavior. Oppermann (1995) in his research addressed that TRA can

simply be used analyze for behaviors that are not repeated. In other words, TRA is effective at explaining psychological/cognitive processes to comprehend consumers' contextual decision-making (Han and Kim, 2010). In terms of practice one may raise the fact that only upon purchase progress, intentions are adjusted. Simply meaning that discern and understand of purchase intentions that involve negotiations between the buyer and seller and so forth requires another key determinant. This limitation turned out to be an initiative for another theory of persuasion.

2.1.3 Theory of Planned Behavior

Another classic model of persuasion is the Theory of Planned Behavior or shortly abbreviated as TPB, originally proposed by Ajzen (1985) as the development of its predecessor model, the TRA. In Ajzen's TPB a central factor is the individual's intention to perform a given behavior. Ajzen (1991) addressed (1) attitude (2) subjective norm, and the missing key determinant (3) perceived behavioral control can form intention leading to a behavior in combination as shown below in figure 2.3.
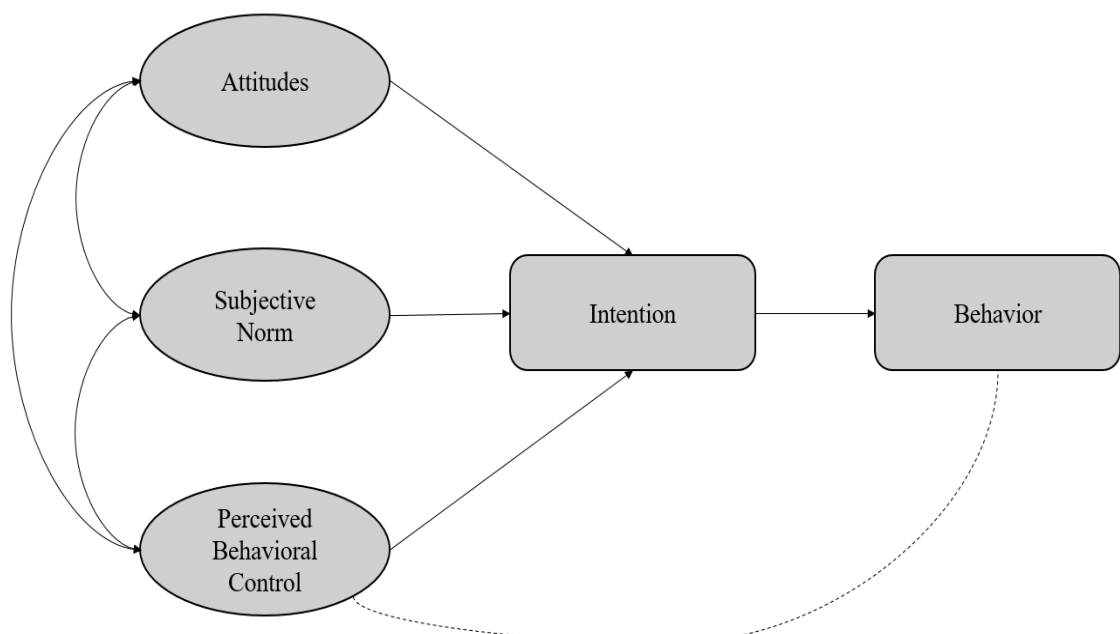
Figure 2.3: TPB Model Illustration

Here assumption over intentions is the factors affecting the behavior such as motivational factors are absorbed. Often these are considered symptoms reflecting individuals' trial willingness.

Madden et al. (1995) argued that, by assumption, when the examined behavior is voluntary then TRA can be applied. But, when this assumption is exhausted, TPB is shown to be superior to TRA for the prediction of target behavior. May So et al. (2005) described that TPB significantly display the correlation between affective attitude and behavior.

Nevertheless, the question remains largely at hand is the representation of theories with empirical results.

2.1.4 Functional Attitude Theory

In 1950s, as earlier discussed two groups of scholars Katz (1960) and Smith et al. (1956) developed and explored in terms of psychological terms, an affective attitude could serve a list of functions categorized by needs. Functional Attitude Theory or shortly abbreviated as FAT hypothesized individuals' attitudes adhered because these are found to be vital and essential to cognitive performance. In other words, the outcome of an attitude is considered a principal rather the accuracy, as it demonstrates the function of attitude. This theory withholds as individuals, objectives fulfillment is through development of attitudes, and this is inclusive to all attitudes. Within FAT, based on original theory (Katz, 1960) attitudes are considered as functions in 5 sets of: (1) Utilitarian, (2) Social-Adjustive, (3) Value-Expressive, (4) Ego-Defensive and (5) Knowledge. The model is illustrated in figure 2.4.
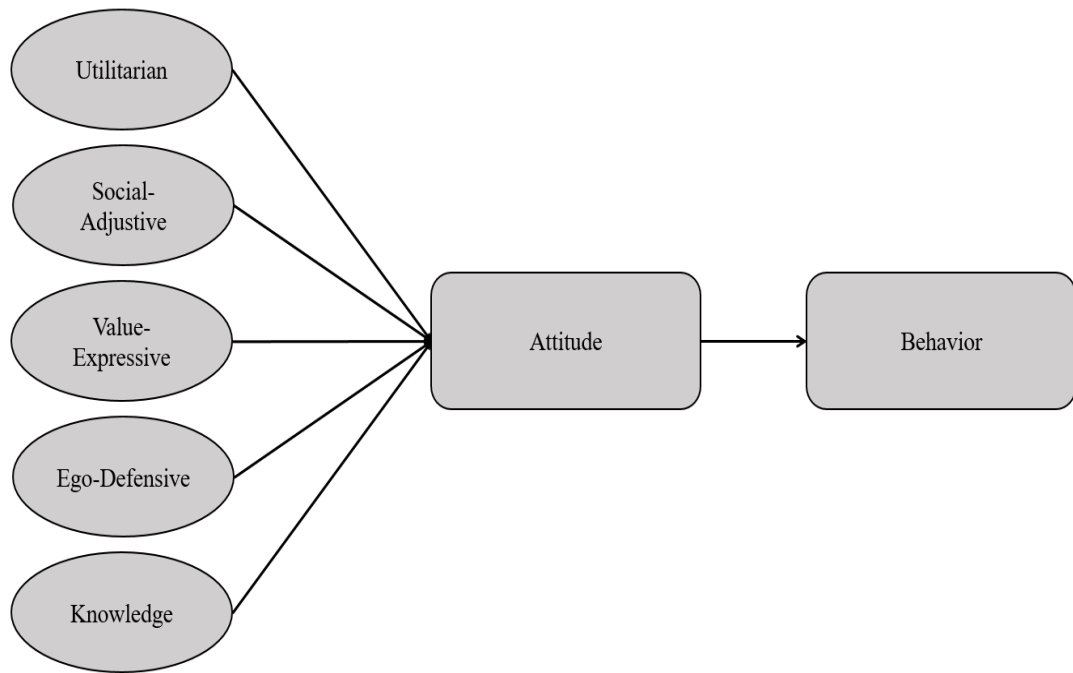
Figure 2.4: FAT Model Illustration

As mentioned in chapter one of this dissertation, this research only draws on FAT. Thus, it is important to understand FAT, its development to Neofunctional attitude, how scholars match hypotheses into this theory and proceed to practical application, and eventually as the main aim of this dissertation match purchase intention within FAT. In the following sections the mentioned sets of attitude functions will be addressed respectively.

2.2 The Initial Set of Functional Attitude Theory

Reliable information about FAT and its terminology is very limited, however Carpenter (2012) smoothly illustrated the theory concisely from its origin through its empirical implementation. As described earlier FAT originally is founded on the basis where attitudes serve as a total of 5 major psychological functional attitudes (Katz, 1960): (1) Utilitarian, (2) Social-Adjustive (3) Value-Expressive (4) Ego-Defensive and (5) Knowledge. The followings are description of each functional group accordingly.

2.2.1 Utilitarian Attitudes

The first functional group is the utilitarian. Many attitudes serve a utilitarian function (Katz, 1960), the denotation is referred to the outcome of high satisfaction and low retribution from matters. Utilitarian function, by Smith et al., (1956) is often rephrased as object appraisal. Attitudes under this function are examined to be the most efficient and successful discern method between rewards and punishment (Katz, 1960). Shavitt and Nelson (2002) asserted that Utilitarian function of attitude direct behavior based on individual's concern on positiveness per se. As an example, green consumers who purchase recycled plastic products have an (utilitarian) attitude toward these products, as they find usefulness rather than attractiveness. Where they seek what rewards are attained (help saving environment), what formalities are avoided (tax exemption in some countries) and what can be saved in terms of monetary (sometimes they're found less expensive in terms of import and export compared with conventional products).

2.2.2 Social-Adjustive Attitudes

The second functional group is the social-adjustive. In the world where individuals have hunger for social attention, attitudes certainly effect self-expression upon interactions. In FAT, Katz (1960) thoroughly explained purpose of social-adjustive function, yet it was not classified separately. However, Smith et al. (1956) proposed the role of this function in terms of a regulator in managing friendship and relationships. In their work, it is distinguished that attitudes can affect individuals' relations socially with the judicious utterance of social-adjustive. Attitudes serving a social-adjustive function in simple terms facilitate self-presentation (Carpenter, 2012). In the example of recycled plastic products, consumers attitude toward the products serve a social-adjustive function, if they seek audience support or attention. This behavior could be witnessed from public figures, social influencers, celebrities and

politicians mainly. Shavitt (1989) expounded this function as the social identity function.

2.2.3 Value-Expressive Attitudes

The third functional group is the value-expressive attitude. Katz (1960) asserted that individual's intellectual values can be articulated by value-expressive attitude. This function aids an individual to declare what values most and continue with persisting loyalty. To this point, one may raise awareness of similarity between utilitarian attitudes and value-expressive, however this attitude does not directly bestow high satisfaction and low retribution from matters. In other comparison, this attitude does not highlight belongingness and social attachments unlike social-adjustive attitudes (Carpenter, 2012). In the example of recycled plastic products, from a salesperson point of view, upon encountering a green consumer whose attitude towards the product served to be a value-expressive function, if the salesperson wishes success, focus should be on (product's) manufacturer effort to support green and environmental wellbeing.

Further to this, Maio and Olson (2000) argued that in marketing researcher must be informed of the abstract under the influence of this attitude before setting a targeting message. In this scenario, green consumer has an attitude toward recycled plastic product that could be anchored to values concerned with organizational practices rather than environmentalism, even though an attitude toward green products functions a value-expressive, mentioning the corporation's efforts might not be persuasive.

2.2.4 Ego-Defensive Attitudes

The fourth functional group is the ego-defensive attitude. According to Katz (1960) and Smith et al. (1956), this function permits individuals to create a mindset with

avoidance of acknowledging any irritating perspective towards an object. Scholars also claimed that self-esteem can be preserved by this attitude.

Bring to mind earlier example, a scenario with individual's attitude toward recycled plastic products serve as ego-defensive function. This basically presents that fact that an individual shares a negative attitude toward green products because of a generalized believe that green products often does not come in good quality. Katz's years of dedicated work in this field, argued that these individuals with negative ego-defensive attitudes are manipulating this attitude as an instrument to achieve self-esteem. Stotland et al. (1959) argued that by guiding respondent to achieve self-insight into the defense mechanisms the results could significantly change.

2.2.5 Knowledge Attitudes

The fifth functional group is the knowledge attitude. Katz (1960) characterized this function as a probe that aids individuals withhold a better realization of the surroundings. The main reason is due to the complexity of the world. Besides Katz, many other scholars including Locander and Spivey (1978) also claimed that attitudes stimulated by this function are exclusive to learn and predict matters and objectives about the world.

By having another look at the example, an attitude toward recycled plastic products may come forth because of an interest or need. A simple description of an individual's understanding of the environment meant insufficient. On other hand understanding of how each of these five sets of attitudes function, provides a more accurate perspective, thus these attitudes can be subject to change (Katz, 1960).

2.3 Neofunctional Attitude: Functions as Variables

Carpenter (2012) reminisced about the possibility to witness to great extension the abandonment of FAT for many years. Further nearly after three decades, Snyder and Debono (1985) asserted that the genuine work scholars Katz (1960) and Smith et al. (1956) lack the empirical methods of studying the behavior on hand. They mainly believed that with longsome interviews, samples will not generate reliable and quantitative results. Katz, (1960) and Smith et al. (1956) originally attempted to examine the ego-defensive function via monocracy stimuli. However the conclusion was inconsistent and insignificant outcomes, and as a result and similar reasons, other scholars left this unpursued. Herek's (1986) neofunctional taxonomy is considered to be the most significant instrument to improve original FAT (Carpenter, 2012). Herek's (1986) neofunctional approach, orders FAT by re-conceptualizing its attitude functions in a way perusable for empirical investigations.

2.3.1 Neofunctional Attitude Functions Categories

In Herek's (1986) approach, each attitude function is constructed as a quantitative dimension. In order to understand the mentioned certain characteristics, first the attitudes are categorized into a set of two: (1) Evaluative and (2) Expressive functions, which will be described in detail as follows. The reason behind this categorization is that Herek believed the concept of FAT is limited to personality centered-approach and thus urges development (Carpenter, 2012).

2.3.1.1 Evaluative Function Category

The first set to be covered is the evaluative function. This category is linked with low punishments and high reward. Herek (1986) distinguished them into three types: (1) Experiential and Specific attitudes. These are believed to be generated and guided to one of the attitude objects according to a single or multiple encounter with the

particular object. To have a better understanding, recalling the example earlier in this chapter, an individual's encounter with a poorly manufactured recycled plastic product, and from that, this individual develops an experiential and specific negative attitude towards recycled plastic product, as a result correlating a negative purchase intention toward green products. (2) Experiential and Schematic attitudes that reflects the schematic development of an attitude with basis of previous personal values toward a set of attitude objects. If in the example, the individual's attitude toward that specific poorly manufactured recycled plastic product would not necessarily make a broad statement to all recycled plastic products. If this individual have formed a positive view based on previous consumption of green products from this manufacturer, there will be a development of an experiential-schematic positive attitude. (3) The anticipatory-evaluative function. In contrast, individuals concerned with the gain or retribution are advised through this function with any actual experience. In the example, if the individual had never purchased from the manufacturer, but read positive reviews from trusted websites (sources) and heard suggestions from friends, there might be a development of a positive attitude toward the recycled plastic product in an anticipatory-evaluative manner.

Remarkably, according to very limited literature at hand, this category is very similar to utilitarian function all proposed functions by Herek classified as the evaluative category are very identical at some extent to Katz's (1960) utilitarian function.

2.3.1.2 Expressive Function Category

The second category defined by Herek (1986) is "expressive". The three attitude functions of social-adjustive, value-expressive and ego-defensive are labelled under this category. Carpenter (2012) in his revision of FAT argued that in Herek's work,

the gaining is limited to an individual with expressive function. Also he noted that this function is very similar to original FAT social-adjustive and value-expressive functions.

2.4 Measuring Functions

The given information above is just an opening to Herek's (1987) neofunctional matching hypothesis. Herek's argument is that in order to adjust the specific message to a function, sources of attitude functions should be explored clearly. These sources are described in the upcoming sections.

2.4.1 Person Characteristics

The first source to be examined as defined by Herek (1986) is person characteristics; "*relatively stable psychological needs, values, and orientations toward the world*". It is showcased, if an individual display potent concerns for their own welfare, his/her focus is mainly on evaluative functions. Furthermore, individuals displaying a desire for interdependency further with growing appearing awareness have focus mainly on social-expressive attitudes (Snyder and DeBono, 1985). Nonetheless in the long run, scholars considered personality a frail mean for social supremacy mainly because personality is found constant among people. For further reading it is advised to read Katz (1960) and Smith et al. (1957) and Stotland et al. (1959).

Scholars in 1970s and 1980s argued that individuals with high and low self-monitoring (Snyder, 1974) differ in the types of messages that they find persuasive (DeBono, 1987). Later on Shavitt et al. (1992) correlated self-monitoring in expressive category, where she and her colleagues argued that product characteristics interact with individual differences in self-monitoring to influence the persuasiveness of quality-based versus image-based appeals. In simple words individuals with high self-

monitoring, their attitudes are expressed with the function of social-adjustive and individuals with low self-monitoring, their attitudes are expressed with the function of value-expressive.

2.4.2 Attitude Domains Characteristics

Personality approach is presumably the most popular, but Herek's (1986) argued, essentially any attitude provide a single function no matter the direction of objection. Herek (1986) defines domain characteristics as objects, groups, issues and/or behaviors. To support this Shavitt et al. (1992) pursued this path and surprisingly the results yielded the fact that attitudes are inherently likely to serve as single functions.

As a conclusion in order to predict attitudes for consumer products, personality differences are applicable. But, there are situations that influence predictions. Supposedly that leaves an open gap for situation factors which is described in next section.

2.4.3 Situations Characteristics

Herek (1986) defines situation characteristics as relatively transient social episodes.

Some scholars attempted to justify a significant increase in prominence of attitude function via situational structures. For this purpose, Shavitt, et al. (1994) surveyed respondents and as an outcome they claimed that in order to highlight utilitarian functions, intuitive experiences, and to emphasize social-adjustive functions, social concerns, must be persuaded. Subsequently Julka, and Marsh (2005) argued the best compelling way of FAT is to consider Katz's (1960) original expression that "goals are met once attitude are blossomed in individuals".

2.5 Green Consumer

The green consumer is typically known as one who support eco-friendly attitudes and/or who purchases green products over the standard alternatives (Boztepe, 2012). Green consumers' ultimate goal is to purchase environmental friendly products or in simple term when a green consumer has option to choose from two products with similar specifications and features, the consumer will choose to buy the environmental friendly (green) one.

Strong (1996) considers green consumerism to be buyer's behavior that incorporates all the principles of environmental consumerism and more. In an article by Schaefer and Crane (2001) green consumption is defined as the process of avoiding certain types of products, such as those causing pollution, or cruelty to animals. But what emphasize most is the incrimination in the number of individuals that are concerned anent environment and willing to practice ethical consumption and this has impact on green consumerism (Bang et al., 2000; Laroche et al., 2001). As explained by Moisander (2007) green consumerism is mainly the result of the constant decline of natural resources that created concerns on preserving the environment. Thus, the argument is that the ethical behavior certainly is a crucial factor only after physiological needs are met otherwise only wealthy can afford this attitude (Mostafa, 2009). In addition this remarkable growth as noted by Hunt and Dorfman (2009) is the result of elevated involvement and responsibility for societies globally. With regards of consumers, Chen (2001), Crane (2001) and Torjusen et al. (2001) claimed in major areas such as energy consumption, and trade individuals are heeding to green consumption. According to Soonthonsmai (2007), the consumers who have changed their buying decision making process in interest of environment issues are "*Green consumers*".

Various researchers (Tekade and Sastikar, 2015; Xie et al., 2014) defined this term as consumers who prefer products that are not likely to endanger human health or damage the environment.

In next section green product and specifically recycled plastic articles are described.

2.6 Green Product

According to Ramnath et al. (2011) and Sitnikov et al. (2015) with globalization, robust advancement in technology and elevation in competitiveness, consumers are witnessed with higher demands in terms of (1) quality, (2) flexibility, (3) on time delivery of product and (4) less cost. These demands urged firms and organizations practice activities. As a result, Green marketing examines a symbiotic role played by marketing occurs in business to improve sustainability and competitiveness, to probe environmental concerns and how managerial implications can effect it. These scholars and others found the green product as designating core of the green marketing mix, hence understanding the definition of an environmental friendly product or to be more precise a green product is essential. Ottman (1998), a notable author in this field has a contribution as follow: "*Green products are typically durable, non-toxic, made of recycled materials, or minimally packaged. Of course, there are no completely green products, for they all use up energy and resources and create by-products and emissions during their manufacture, transport to warehouses and stores, usage, and eventual disposal. So green is relative, describing products with less impact on the environment than their alternatives*". Other scholars including Hartmann and Ibanez (2006) and Rivera-Camino (2007) believed that first of all there is a lack of common definition of the term and in many studies researchers managed to develop several definitions for this subject but these definitions are unclear in general, and the concept

is not accurately defined. According to Kumar and Ghodeswar (2015) a green product is simply defined as a certified product which in its manufacturing process use of any toxic substance or environmentally harmful ingredient is absolutely forbidden.

Despite the ethical concerns among all available green products, the most challenging contend is the promotion of recycled products. A common belief among consumers is that recycled materials are inferior to virgin materials (Kashmanian et al. 1990). These products are generalized to have higher relative cost compared with conventional products, even though these perceptions are often mistaken (Cude 1993). Overcoming these perceptions and beliefs, educating consumers simultaneously about purchasing products and packaging manufactured by recycled materials is claimed to be very challenging (Kashmanian et al. 1990).

In next section recycled plastic products are briefly introduced.

2.6.1 Recycled Plastic Products

In a research by Min et al. (1997) with the subject of procurement, it is claimed that the most practiced strategy to reduce waste recycling. To have an effective strategy, firms are required to specify their recycling policy involving collection, separation, storage, transportation, reprocessing, and remanufacturing. Thus in simple terms a recycled plastic product is a product which is remanufactured from reprocessed articles of separated plastic substances that have been collected by private or NGOs.

Plastics have substantial benefits in terms of their low weight, durability and lower cost relative to many other material types (Andrady and Neal 2009; Thompson et al. 2009). More or less packaging and disposable items have a share of 50 percent of plastics. Pipes, cable coatings and construction materials for infrastructure have a share

of between 20 to 25 percent, and the remaining share is divided for intermediate lifespan durable material, including electronics, home appliance, automobiles, etc. In 2016 more than 8.4 million tons of plastic waste were collected to be recycled inside or outside the European Union. (PlasticsEurope Annual report, 2018). Some researchers prove that intentions to purchase and actual purchase of recycled products are not only due to positive evaluation of them but a way by majority of consumers to express their concern and keep the environment as it is (Mobley et al., 1995; Guagnano, 2001).

The futurist Hammond (2007) in his book titled "The World in 2030", suggested that speed of technological development is accelerating exponentially and, for this reason, by the year 2030, significantly growing role of plastics in people's lives is predicted by him.

2.7 Emotional Value

Emotions are identified as an intentions felt toward anything intuitively appraised as beneficial, or away from anything intuitively appraised as harmful (Arnold, 1960). And accordingly emotional value is the indicator of emotions toward specific products, in this case, green products.

Previously attitude functions and categories is reviewed in literature, and based on the FAT, the model of the study, all functions are leading to an attitude. Where attitude is often identified to be an enduring motivational, emotional, perceptual, and cognitive processes that form a structure conductive to any environmental facet. It's very important to understand that attitudes are developed from an environment where emotions have a communicational role (Hawkins et al., 2001). Frijda (1986) argues

that when an individual appraises a stimulus as having consequences beneficial to self's concerns, while he/she experience positive emotions and try to approach this stimulus.

Howard and Sheth, (1969) introduced a model consists of three components: (1) cognitive component such as awareness, knowledge, belief (2) an affective component such as feelings, emotions (3) a conative component including response tendencies. It was later criticized by Asiegbu et al. (2012) with the claim that regarding the attitude object affective component of this model reflects emotions, evaluations and feelings.

Sheth et al. (1991) specified emotional value to be the perceived utility acquired from an alternative's capacity to arouse feelings or affective states. With this remark that upon associations, perception or perpetuation of specific feelings an emotional value is required.

2.8 Conclusion

This chapter summarized the literature review about initiatives that drives attitude to a certain behavior as in this study's case, purchasing intention. Based on Herek's (1986) theory, attitudes are categorized as evaluative and expressive functions. It is possible to summarize that evaluative functions and expressive functions are essential to marketers as they help to understand how to engage and influence a consumer, especially green consumers as it has been reviewed that challenges are upon promoting green products. FAT may help understand with a concern to consider that no consumer perceived and apply same attitudes towards a certain green product. With attitude domain in FAT it is also beneficial for manufacturers of green products, to understand what values in the minds of their frequent and non-frequent consumers of their

products. In the next chapter of this dissertation, conceptual framework of study is covered.

Chapter 3

CONCEPTUAL FRAMEWORK

3.1 Introduction

During recent years, despite the fact that the functional attitude theory was long forgotten, especially in the field of marketing the growing interest in motivational corroboration and support of cognitive and judgement processes has led to a revitalization in contribution to functional attitude theory. Several scholars including Clary and Snyder (1992), Shavitt (1994), Maio and Olson (2000), Franc and Brkljačić (2006), and others have tested the functional attitude theory to examine outcomes of hypothesis matching. In this chapter, the conceptual framework of the research and development of hypotheses studied in this dissertation are covered.

The focus of this study is Herek's (1986) neofunctional attitude approach of FAT on evaluative (utilitarian) and expressive (social-adjustive and value-expressive) functions based on a quantitative research, thus in this chapter, attitudes that leads to purchase intention is further explored by defining hypotheses between evaluative and expressive functions leading to an affirmative attitude that intends an individual to purchase recycled plastic products.

Henerson, Morris and Fitz-Gibbon (1987) recommended that measuring attitude usually follows six steps. First, identify the constructs to be measured, as if it could be defined simply as the attitude area of interest. Second, an existing measure of the

construct should be found. Scholars earlier mentioned in the beginning of this chapter have identified certain attitude constructs beforehand, thus one may only left with an attempt made to locate an instrument that will measure the specific attitude. The theories (instruments as stated by authors) that are commonly used to measure attitudes are already covered in chapter two of this study. Then on third step an attitude measure should be constructed. Qualitative research demands constructs to be prepared by researcher via sets of interview, however since this study is designed as a quantitative research, necessary instruments are gathered by reviewing other scholars' work and identifying correct and accurate constructs on how to measure a specific attitude. Fourth step suggest a pilot study, where the questionnaire design and pilot study are both covered in chapter four of this dissertation. Then on Fifth step tests should be revised for use and this is the step where results of pilot testing are used to further configure the questionnaire to a finalized version. Finally as in any detailed academic research, it is required that results are summarized, analyzed and displayed, which in outline of this dissertation this subject is already instructed.

Related to this dissertation's path, Franc and Brkljačić (2006), concluded that general attitude toward a symbolic function was dominated by value expressive concerns, while in green marketing attitude toward a general product is mainly dominated by utilitarian (instrumental) concerns. A green product based on this initial understanding in literature, affects both symbolic function and utilitarian concerns, as an outcome hypotheses of this study are associated with both evaluative and expressive functions of attitude.

3.2 Relationship of Evaluative Attitude Function and Affective Attitude

Based on the literature review on chapter two of this report an individual's attitude can serve as different sets of function, one being utilitarian function originally proposed by Katz (1960) and Smith et al. (1956), helping to maximize the rewards and minimize the punishments obtained from objects in the environment. In order to define functions as variables, Herek's (1986) approach categorized attitudes associated with gaining rewards and avoiding punishments into evaluative function with identical similarities to Katz's (1960) original utilitarian function covered in chapter two of this dissertation. Utilitarian products encompass a logical illustration; they are considered less inducing because generally they provide cognitively oriented benefits (Hirshman, 1980). On the other hand, a key determinant of utilitarian function is argued to be pleasure, nevertheless pleasure engages the happiness and satisfaction related to product revelation, which may reflect the functional outcomes of the product's use (Ashley et al., 2016). Recent articles in consumer behavior research, have focused on goods as a source of tangible gain that creates a utilitarian function with respect to their objective features, as an example an automobile and its mileage per tank of gas.

In the literature review it is observed that the green consumer is typically known as one who support eco-friendly attitudes and/or who purchases green products over the standard alternatives (Boztepe, 2012). Basically, green consumers are concerned about the ultimate rewards and punishments that are obtained eventually from their decision on purchasing a product. According to Voss et al. (2003) when products are highly functional, involvement may play less of a role in consumers' evaluations of brands and upon intention to purchase a utilitarian product, consumers perceive the choice as

beneficial and easily justified (Sela et al., 2008). To be more precise in the case of green products, in our study recycled plastic products, it will be seemly true that a drinking cup which is made of plastic will have the same specification and purpose similar to an alternative drinking cup made of recycled substances, but from a green consumer's point of view what weighs more is the amount of benefit rewarded from purchasing recycled product. Mano and Oliver (1993) claimed that an intention towards purchase of a utilitarian product, usually an intensive, cognitive, and systematic decision-making process is appealed, and consumers closely inspect the products' key features and rewarding outcome. Ultimately, the first hypothesis of this study is as follows:

H1: Utilitarian function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.

3.3 Relationship of Expressive Attitude Function and Affective Attitude

According to Lin and Huang (2012), green products containing values such as conditional, emotional, epistemic and social are connected with green consumers and consequently they intend to choose those products more likely. These mentioned values based on the literature review on chapter two of this report, are of an individual's expressive function. Referring to the review by Carpenter (2012) expressive function also includes the ego-defensive function and knowledge function, that accounts for the most contribution received in early stage of FAT research (Katz et al., 1956) Later on scholars including Lapinski and Boster (2001) examined the model and ego-defensive and knowledge functions of attitude yielded results not appropriate for empirical investigation. Since this study undertakes a descriptive and quantitative approach, and the main goal is to achieve representable and empirical

results, knowledge and ego-defensive functions are excluded from expressive function.

3.3.1 Social-Adjustive

Based on the understandings provided by literature, according to Katz (1960) any change in fundamental value generates corresponding changes in the expressive attitude likewise modifying the correlation between the value and the attitude results in the expressive attitudes to be manipulated. Maio and Olson (2000) have argued that more specific goals can be derived from the abstract motivations represented by values and that value-expressive attitudes would be those that enhance the pursuit of a specific goals, meaning that green consumers who seek to purchase green products have social attachments. Bazzini and Shaffer (1995) discovered that high self-monitoring individuals adapt themselves to fit in desired social group. This can be interpreted that those who practice such action commonly have social-adjustive attitude function. As described in chapter two of this dissertation, Herek's (1986) functional matching hypothesis suggests that person characteristics, attitude domains characteristics and situations characteristics should be relatively considered when matching hypothesis between functions. Therefore, based on Herek's (1986) description of person characteristics, it is understandable that green consumers are keen to avoid negative outcomes, when facing with social risks, as it is mentioned that in long run, personality has weak mean for social influence. Lee (2008) has brought up social impact has a major influence on emergence and development of attitudes leading to green product purchasing intention, merely because of the level of influence of family, friends and social status. When consumers hold an expressive attitude toward a product, they are motivated to consume it as a form of self-expression (Snyder and DeBono 1985). As a result the second hypothesis of this study is as follows:

H2: Social-Adjustive function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.

3.3.2 Value-Expressive

Hullet and Boster, (2001); and Franc and Brkljačić, (2006) argued that social-adjustive function maintain attitudes conceptualized as attitudes deprived of any value basis, whereas conversely value-expressive function maintain attitudes were linked to values in general. Attitudes set amid values generate value-expressive function. Applying the possibility of manipulation to value-expressive function, similar to social-adjustive function mentioned earlier in this section, it is possible to create the third hypothesis. According to FAT, value-expressive function of attitude is developed by consumers as an assistant in achieving and promoting their set of values (Hullet and Boster, 2001). Based on the literature review it is assumed that on the perimeter of an attitude, all values, norms and beliefs are expressed exclusively to generate uniqueness (Katz, 1960). The value-expressive function is served when an attitude is formed because of its usefulness towards attaining and sustaining a consumer's value and norms (Katz, 1960). As a result, value-expressive function tend to be strongly related to one or more of an individual's values (Maio and Olson, 2000). A green consumer's personal value towards environment initiates and serve as a function for purchase intention. Subsequently, the third hypothesis of this study are as follows:

H3: Value-expressive function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.

3.4 Emotional Value as Moderating Factor

Referring to literature review of this dissertation, emotional value is defined as the perceived utility derived from an alternative capacity to arouse feelings or affective states (Sheth et al., 1991). It is already discussed that person characteristics, attitude

domains characteristics and situations characteristics should be relatively considered when matching hypothesis between functions based on Herek's (1986) approach. Herek (1986) defines person characteristics, attitude domains and situations are important when assigning a specific message to attitudes. Consider the opening example of green products in chapter two, a green product such as a particular recycled plastic product. An individual's attitudes toward this product may be entirely utilitarian, based on its earned good as outcome. Another individual's attitudes might be based on reactions to the green product by significant others as social-adjustive, and finally a third individual's attitudes may be based on a need to express values implied by owning green products, meaning value-expressive. Thus, not all functions are equally evoked by all attitude domains (Carpenter, 2012). As studied by Desmet et al. (2001) a product with an added emotional value is presumed to elicit the emotional response that is most preferred by the consumer. Bei and Simpson (1995) in their research found out that majority of respondents (approximately 90%) have a feeling that they are saving the environment when they purchase green products. This feeling or aroused emotion towards purchase of a green product can be considered as an evidence. To give a better thorough understanding, one may assume the fact that goods and services are frequently associated with emotional responses, and emotional value is often associated with aesthetic alternatives such as religion or causes. In addition, more tangible and seemingly utilitarian products also have emotional value (Sheth et al., 1991). The role of emotional value has been studied by Khan and Mohsin (2017) and it is suggested that other studies could analyze the moderator into the types of emotions linked to green product purchase. People who regard going green as an act that helps safeguard the environment with an experience of positive feelings of doing good for themselves (value-expressive) and for society at large (social-adjustive) (Lin

and Huang, 2012). To support this statement emotional value is found to have a significant positive relationship with purchase intention towards green products (Lin and Huang, 2012) and it proved a higher consistency while being present (Gonçalves et al., 2016).

As a result, the fourth and fifth hypotheses of this study are as follows:

H4: Emotional value has a positive moderating effect on relationship between social-adjustive function and affective attitude.

H5: Emotional value has a positive moderating effect on relationship between value-expressive function and affective attitude.

3.5 Measuring Attitude

Simonson and Maushak (1996) asserted that through the following approaches, one may measure attitude:

(1) Self-reports, in this approach the members of a group report directly about their own attitudes. As defined by the authors all procedures by which an individual is asked to report on his or her own attitudes are included in self-reports.

(2) Reports of others, in this approach others report about the attitudes of an individual or group. When individuals whose attitudes are being investigated are unable or unlikely to represent accurate information, others can be questioned, interviewed or surveyed or observed.

(3) Sociometric procedures, in this approach members of a group report about their attitudes toward each other. Sociometrics are generally used when the researcher desires an illustration of the patterns within a group.

(4) Records, in this approach records as defined by authors are systematic accounts of regular occurrences, such as attendance reports, sign-in sheets, library checkout records, and inventories. Records are essentially helpful when containing information relevant to the attitude area in research.

In the literature review section of this dissertation it is described that with Herek's (1986) functional matching hypothesis three sources of person characteristics, attitude domains characteristics and situation characteristics should be considered in order to specify a message to an attitude. Franc and Brkljačić (2005) in their research stated that exclusive examination of attitude function deemed people differ in attitudes that are dominant in monotonous goals. Affiliated to statement, attitude functions are often expressed by measuring demographic characteristics through self-report. This was covered in chapter two by the work of scholars including Snyder and DeBono (1989), Bazzini and Shaffer (1995). Furthermore, Eagly and Chaiken (1993) challenged this approach proposing that attitude objects and situation crosswise leads to reject any variation in attitude functions. Nonetheless, with reminisce, Herek (1987 and 1986) argued upon measuring functions person characteristics, attitude domain characteristics and situations characteristics should be taken into consideration. Thus it is validated that with different attitude domain characteristics, an individual's attitude can serve completely different function. Franc and Brkljačić (2005) further developed scales measuring utilitarian, value-expressive and social-adjustive attitude function per self-reports. For the purpose of this dissertation, this information is collected through the use of survey in written form through questionnaires, and since the final behavior is set to be intentions to purchase a green product, self-reports could help indicate the most direct type of attitude assessment.

H6: Attitude towards green products has a significant and positive effect on purchasing intentions.

3.6 Measuring Purchasing Intention as Behavior

In literature purchase intention is an attitudinal variable for measuring customers' future contributions to a brand, whereas customer equity is a behavioral variable accounting for actual purchasing record (Kim and Ko, 2012). According to Morisson (1979) a purchase intention leading to a purchase behavior follows a three step transformation. The first step is the stated intention, followed by true intention and unadjusted purchase probability as second and third steps which lead to purchase probability at the end eventually. In this dissertation the aim is to predict green consumer's behavior, thus according to scholars who provided behavioral models any purchase intention can be taken into consideration as an intellectual subordinated propensity toward products (Ajzen and Fishbein, 1980; Katz, 1960). Based on the descriptions reviewed, in this dissertation, it is assumed that purchasing intention is a behavior resulted from attitudes that green consumers are showcasing. This is important in the context of this paper because the nature of the green consumer and green product relationship, is likely to contribute to initiate an intention to an actual purchase behavior.

3.7 Research Model

There are in total 6 hypotheses that are going to be tested in this study. Using remarked hypotheses, the research model illustrated in figure 3.1 is created based on predicted analysis.
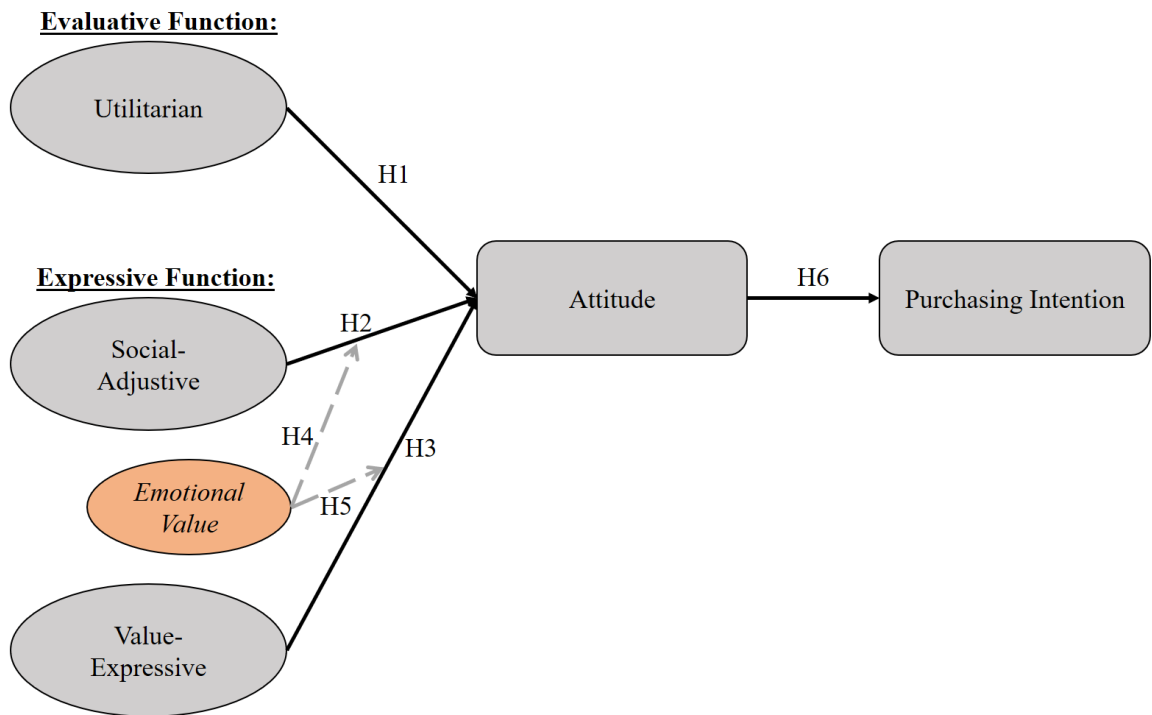
Figure 3.1: Research Model

The description of these hypotheses are provided in table 3.1.

Table 3.1: Research Hypotheses

	Hypothesis Description
H1	Utilitarian function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.
H2	Social-Adjustive function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.
H3	Value-expressive function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.
H4	Emotional value has a positive moderating effect on relationship between social-adjustive function and affective attitude.
H5	Emotional value has a positive moderating effect on relationship between value-expressive function and affective attitude.
H6	Attitude towards green products has a significant and positive effect on purchasing intentions.

3.8 Conclusion

In this chapter, discussion over the research model is covered, where in total 6 hypotheses are developed to be tested to explain the relation between attitudes as functions and consumer's purchasing intention. Research model is developed based on Katz (1956) FAT and Herek's (1986) Neofunctional Attitude to explore more in the influence of these functions on the attitude that drives purchase intention towards a green product.

Chapter 4

METHODOLOGY

4.1 Introduction

The term research refers to the systematic method composed of the problem declaration, hypothesis formulation, data collection, data analysis and yielding certain conclusions either in the form of solutions towards the problem concerned or in certain generalizations for some theoretical formulations (Kothari, 2004). In this chapter detailed information regarding research approach and design of this dissertation is covered along with instruments that have been used for this matter. The questionnaire design and scales used in the questionnaire are elucidated. Data analysis development is also taken into consideration in this chapter and this chapter is finalized with other important aspects of research such as sampling technique and ethical issues in undertaking this academic research.

4.2 Research Steps

Kothari (2004) defines research design as the formidable problem that follows the task of defining the research problem is the preparation of the design of the research project. Malhotra (2011) explains that a research design is a framework or blueprint for conducting the marketing research project. Based on the definition typically there are 6 steps to follow:

Table 4.1: Steps involved in a Research Design

Step	Action
Step 1	Define the information needed
Step 2	Design the exploratory, descriptive, and/or causal phases of the research
Step 3	Specify the measurement and scaling procedures
Step 4	Construct and pretest a questionnaire (interviewing form) or an appropriate form for data collection
Step 5	Specify the sampling process and sample size
Step 6	Develop a plan of data analysis

Stem from the steps mentioned above the methodology of this dissertation was formulated and is described as follows.

4.3 Define the Information Needed

As the first step requires the research question; this dissertation is investigating determinants on green product purchasing intention. The research model and theory along with all necessary factors influencing data collection and analysis of this dissertation have been carefully and thoroughly investigated and a literature review providing concise report was prepared on the second chapter of this dissertation. The

more accurate the collected information, the more straightforward tailoring hypotheses and analysis of the study.

4.4 Design the Phases of the Research

There are three general types of research design as described by Malhotra (2011) known to be: (1) Exploratory, (2) Descriptive and (3) Causal. Before moving on to the second step these mentioned designs are explained in the followings.

The first type of research design is exploratory. Malhotra (2011) expresses that with the exploratory investigation researcher is permitted to delve a quandary with the aim attaining results. In general, exploratory research is meaningful in any situation where the researcher does not have enough understanding to proceed with the research project. The second type of research design is descriptive. The third type of research design is causal. Malhotra (2011) defines causal research as a type of conclusive research where the major objective is to obtain evidence regarding causal relationship. Causal research is designed for the primary purpose of obtaining evidence about cause and effect or causal relationships.

Malhotra (2011) provides reasons to conduct a descriptive research with this argument that the major objective of descriptive research is to describe something usually market characteristics or functions. Descriptive research provides a deeper level of findings by proving a relationship between two factors or the frequency of occurrence of an event (Churchill and Iacobucci, 2002). With a conjoin method characteristics such as consumers or market areas can be distinguished whereas in this dissertation the very specific aim and target of relevant groups are green consumers and their intentions towards recycled plastic products. Second to estimate the percentage of units in a

specified population exhibiting a behavior, or to be more precise the main aim of this thesis is dedicated to purchasing intention as a behavior. A descriptive research can be studied either as cross-sectional or as longitudinal. In a research that any sample of population is surveyed only once is called cross-sectional (Malhotra, 2011). Cross-sectional designs could be divided to single cross-sectional (also known as sample survey) or multiple cross-sectional, where in sample surveys only one sample of respondents is drawn from the target population, and information is obtained from this sample only once. A descriptive research can be qualitative or quantitative. The following table provides sufficient information to understand the difference between qualitative and quantitative research.

In order to apply FAT and to investigate results it is suggested to test developed hypotheses empirically. To obtain empirical results it's suggested that the population of interest should be surveyed and it requires collection of information from any given sample of population elements only once. The aim of this study is to understand characteristics of green consumers and specifically their intentions towards purchasing green products. Since necessary information have been gathered in the literature review part of this dissertation and scales used in questionnaire design are previously created by scholars in this field, thus qualitative research was not mandatory. Thus, this dissertation is undertaken on a descriptive single cross-sectional and quantitative research approach and the selection of sample was non probability sampling under convenience technique. In the following questionnaire design and sampling is further explained.

4.5 Construction and Pretest of Questionnaire

In this section based on the type of research chosen, a descriptive single cross-sectional study, questionnaire design and format for target population of Iran is covered. Often questionnaire is considered as the heart of a survey operation (Kothari, 2004). Hence it should be very carefully constructed and for this matter from the research objectives and the business objectives, it should be clear what data need to be collected in detail. Thus, first a questionnaire was designed and then distributed for a pretest. In the following section sufficient information regarding the questionnaire content and design is provided.

4.5.1 Steps in an Effective Questionnaire Design

In this section steps that are considered when preparing an effective questionnaire are covered based on Brace (2018) questionnaire design guideline.
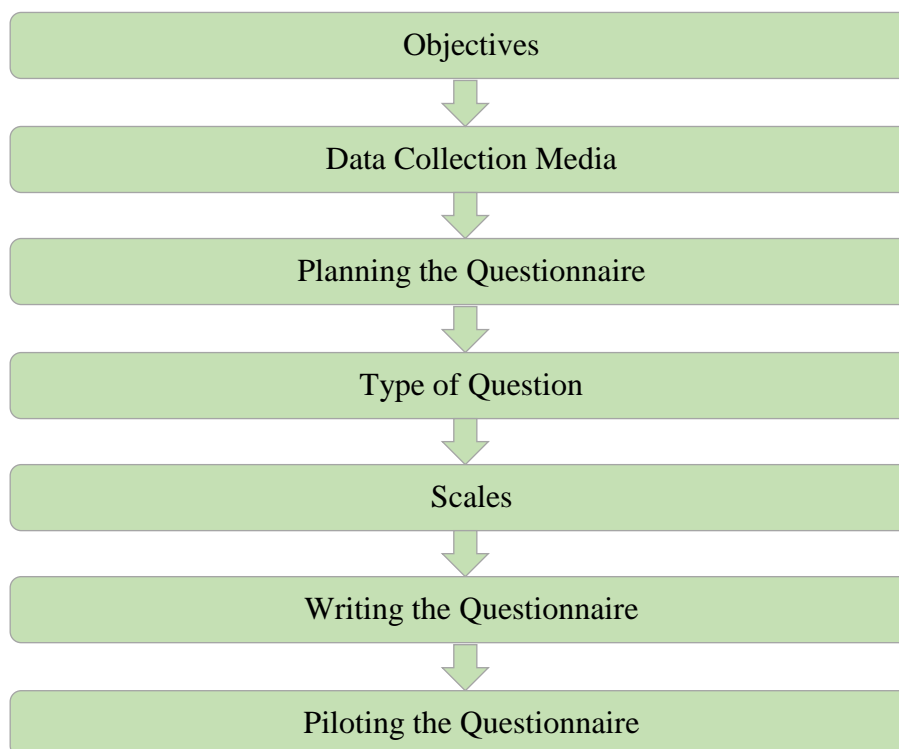
Figure 4.1: Steps in Designing a Questionnaire

4.5.1.1 Objectives

Brace (2018) defines the role of the questionnaire as elicitation of the information that is required to enable the researcher to answer the objectives of the survey. In order to achieve this, in this dissertation the questionnaire must not only limited to required data collection, but collect the data in the most accurate way possible. Whereas based on FAT, consumer's purchasing intention requires detailed understanding of attitudes leading to the specified behavior. As a result the objectives are clearly defined to collect data for 5 major criteria of utilitarian, social-adjustive, value-expressive, emotional value and affective attitude.

4.5.1.2 Data Collection Media

Data collection is categorized into two: (1) interviewer-administered; and (2) self-completion (Brace, 2018). In this dissertation questionnaires are designed as paper questionnaires that respondents complete on their own. This type of survey provides time to respondents to consider when answering questions while keeping their identity anonymous at the same time.

Also there are questions that are designed electronically using Google Forms platform that enables respondents to fill the questionnaires via their mobile and computer devices. With the aim of Google Forms not only identity of respondent is kept anonymous; to reach completion, respondent must answer all questions, otherwise the survey cannot be recorded and it helps transferring collected data much easier for analysis.

4.5.1.3 Planning the Questionnaire

Planning as the third step is defined the sequence of the different topics that may be covered by the questionnaire, the order of exclusive questions and the order of given

responses could exhibit the accuracy and reliability of the collected data and how they're effected (Brace, 2018). This illustrates the importance of planning before attempting to write a single question. In order to plan the questionnaire, first sections of questionnaire is properly planned. These sections can be identified as identifying questions, exclusion or security questions, screening questions and finally main questions. These sections are covered in detail in questionnaire format.

4.5.1.4 Type of Question

According to Brace (2018) questions used in surveys can be classified in a number of different ways: (1) Open or closed, (2) Spontaneous or prompted and (3) Open-ended or pre-coded.

For the main aim of this study, the questions are prepared in form of pre-coded close ended questions. As required some questions are also in the form of spontaneous format to understand attitude.

4.5.1.5 Scales

The specific questions for measuring utilitarian, social-adjustive, value-expressive functions, emotional value, attitude and purchasing intentions are extracted and tailored from scholars' work which are indicated and marked with author's name and year of the research in the following table:

Table 4.2: Questionnaire Scale Structure

Question	Author	Year
Utilitarian function		
U1: I have personal interest related to recycled plastic products.	Franc, R., and Brkljačić, T.	2006
U2: Recycled plastic products has connected with something I want, need or should need.		

U3: Recycled plastic products is or can be related with my interests.		
U4: Purchasing recycled plastic products can be beneficial for me.		
U5: Purchasing recycled plastic products has or can have significant consequences for me.		
U6: Purchasing recycled plastic products can reflect on my life.		
U7: By purchasing recycled plastic products I can achieve some wanted or I can avoid some unwanted consequences.		
Social-Adjustive function		
SA1: By declaring or not declaring my attitude towards purchasing recycled plastic products I can manage with positiveness or negativeness of my relationships with others.	Franc, R., and Brkljačić, T.	2006
SA2: My attitude toward recycled plastic products is important to close persons.		
SA3: My attitude toward purchasing recycled plastic products has a consequences on my relationships with others.		
SA4: By purchasing recycled plastic products I can manage my relationships with others.		
SA5: By my attitude toward recycled plastic products I can avoid unnecessary misunderstanding with others.		
SA6: My attitude toward recycled plastic products is important for my friendships.		
SA7: Changing my attitude toward recycled plastic products should have consequences on my relationships with close persons.		
Value-Expressive function		
VE1: My attitude toward recycled plastic products speaks a lot about me as a person.	Franc, R., and Brkljačić, T.	2006
VE2: Based on my attitude toward recycled plastic products it can be concluded how I am as a person.		
VE3: Declaring my attitude toward recycled plastic products I present some image about myself.		
VE4: My attitude toward recycled plastic products represents my general principles and values.		
VE5: With my attitude toward recycled plastic products I express own values and life principles.		
VE6: My attitude toward recycled plastic products enable behavior in accordance with my values.		
VE7: Through my attitude toward recycled plastic products others can figure real me.		

VE8: My attitude towards recycled plastic products is in accordance with my self-image.		
Emotional Value		
EV1: Buying the green product instead of conventional products would feel like making a good personal contribution to something better.	Arvola et al.	2008
EV2: Buying the green product instead of conventional products would feel like the morally right thing.		
EV3: Buying the green product instead of conventional products would make me feel like a better person.		
Attitude		
AT1: Buying green products makes me feel good.	Burton et al.	1998
AT2: I love it when green products are available for the product categories I purchase.		
AT3: For most product categories, the best buy is usually the green products.		
AT4: In general, green products are poor-quality products. (reverse coded)		
AT5: Considering value for the money, I prefer green products.		
AT6: When I buy a green product, I always feel that I am getting a good deal.		
Purchase Intention		
PI1: How likely is it that you would purchase a green product?	Van der Heijden and Verhagen	2004
PI2: How likely is it that you would consider the purchase of a green product in short term?		
PI3: How likely is it that you would consider the purchase of a green product in the long term?		
PI4: How likely is it that you would consider the purchase of a green product if you need a plastic product?		

The structure of Likert-scale with basis of seven-point is chosen and mentioned questions are put together to form the questionnaire with relevant format and prepared for writing.

4.5.1.6 Writing the Questionnaire

There are issues that should be concerned while preparing a questionnaire. According to Brace (2018) these issues include:

(1) question language and style of language in which it is written;

(2) ensuring that there is no ambiguity in the questions or the responses;

(3) whether pre-codes will be used or responses recorded verbatim;

(4) if pre-codes are to be used, what they should be;

(5) the use of prompt material and the choice between verbal and pictorial prompts;

(6) bias that can be caused by the order of the questions;

(7) bias that can be caused by the order of prompted responses.

Target population is the country of Iran, thus, the questionnaire is prepared in both English and Farsi as the medium of language in a way that ensures respondents understand each of the questions clearly. Each question in each section is prepared in a way to avoid any ambiguity. For pre-coded questions, they are prepared as mutually exclusive and as meaningful as possible to provide most accurate result. Prompts could be scale points, thus each scale and hint for answering each scale is clearly described for respondents. To minimize bias, statements are clarified and are presented to respondents without any degree of complexity. Last but not least, the questionnaire has an order with standardizing questions. According to steps provided by Brace (2018) in this research a body of knowledge is generated with general information on how respondents provide answer to questions. No response pattern is witnessed and finally the analysis are compared with similar studies and thesis in chapter 6.

4.5.1.7 Piloting the Questionnaire

A set of 34 respondents have been selected at random from population to pre-test the questionnaire. The idea behind the pre-test is to evaluate questions are clearly understandable for respondents and to check if errors exists or not. Some minor issues due to translation had been found which were reconsidered and edited as final questionnaire set to be distributed for final test. For this purpose 30 more respondents from the population had been selected randomly and was given the questionnaire to fill. Before finalizing the questionnaire, it has been tested for validity and reliability. The most common used software for statistical analysis is IBM's SPSS. With the help of SPSS it is possible to run Pearson correlation coefficient test where the Pearson correlation coefficient measures the strength of linear association between two variables (Sedwick, 2012).

4.5.2 Questionnaire Format

Once the questionnaire is planned and designed according to covered steps in the previous section, it is broken down to eight parts. The first section of the questionnaire ensures that the right respondent will proceed through the survey. An opening question signalizing the purchase of a green product is added where the respondent either selects "Yes" or "No", in this part only if "Yes" is selected, respondent is allowed to proceed. The rest of the questionnaire is tailored as follows:

Section 2: Questions measuring utilitarian function of attitude;

Section 3: Questions measuring social-adjustive function of attitude;

Section 4: Questions measuring value-expressive function of attitude;

Section 5: Questions measuring emotional value;

Section 6: Questions measuring attitude;

Section 7: Questions measuring purchasing intentions;

Section 8: Personal background questions.

Answers to sections two to six are designed under a seven-point Likert scales as following:

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

Answers to section seven were designed under a seven-point Likert scales as following:

Highly Unlikely	Unlikely	Slightly Unlikely	Neither Unlikely nor Likely	Slightly Likely	Likely	Highly Likely

Answers in final section, section eight, were prepared as multiple choice. In this section, gender, age, marital status and education level as demographics were included. Also a question is added to measure the consumers' monthly recycled plastic products purchase iteration.

4.6 Specification of Sampling and Sample Size

Based on a definition by Malhotra (2011) a sample is the subgroup of the elements of the population selected of participation in the study. Based on Kothari (2004) there are seven steps involved in a sample design: (1) Type of universe (2) Sampling unit (3) Source list (4) Size of sample (5) Parameters of interest (6) Budgetary constraint (7) Sampling procedure. In this study steps that have been followed from Kothari's steps are described next.

4.6.1 Type of Universe

The population of interest or technically called the universe is clarified in this step. Kothari (2004) defines the universe to be finite or infinite. In finite universe the number of items is certain, but in case of an infinite universe the number of items is

infinite. In this study the population of interest is the consumers of Iran and survey questionnaires have been distributed to respondents residing in this country.

4.6.2 Sampling Unit and Source List

A decision has to be taken concerning a sampling unit before selecting sample. Based on a definition by Kothari (2004) source list is also known as 'sampling frame' from which sample is to be drawn. It is extremely important for the sampling frame to be as representative of the population as possible. Hence it should be taken into account that selection of very reliable and relevant respondents is a difficult task at hand and it is not possible to generate a list all the customers who had pervious purchase of green product specifically recycled plastic product. Therefore a sampling frame cannot be created, nonetheless all efforts have been taken to distribute the survey questionnaires to the right audience and respondents by different means that explained earlier such as the filter question and use of Google Forms. Interviewers helping gathering data from sample were also informed about the sensitiveness of the study to accurate draw a sampling frame.

4.6.3 Size of Sample

Kothari (2004) defines sample size as the number of items to be selected from the universe to constitute a sample where it can be a major problem before a researcher, as the size of sample should neither be excessively large, nor too small. It should be optimum. According to Hill (1998) in behavioral research for sample sizes of 500 respondents, it is assured that sample error will not exceed 10% of standard deviation, about 98% of the time. Thus in this thesis, the aim is to reach minimum 500 respondents as sample size.

4.6.4 Sampling Procedure

Finally in a research the technique applied to sampling should be undertaken where in this research, non-probability technique through convenience method is used.

4.7 Development of Data Analysis Plan

The analysis of this dissertation includes several steps as follows. The software used for this matter is IBM SPSS. The initial step is dedicated to descriptive analysis of findings. Then scales are checked for reliability and presented in descriptive form to examine means and standard deviation. Correlation analysis is then performed to examine relationship in between variable. Tests to compare means of variable with dependent variable such as independent samples t-test and ANOVA are also considered.

In literature by Bagozzi (1980) it was proposed that causal models enable researchers with four key benefits: (1) assumptions, constructs, and hypothesized relationships can be made in a theory explicit; (2) a degree of precision to studied theory can be added, since they require clear definitions of constructs, processes, and functional relationships; (3) a more complete representation of complex theories is allowed and (4) a formal framework for constructing and testing both theories and measures can be made.

Partial Least Square (PLS) is known to be one of the alternative causal modeling approaches. PLS has been developed and used in business disciplines and in the strategic management area.

Hypotheses testing in this study is undertaken by PLS analysis.

4.8 Ethics in Data Collection

Based on the research methods for business offered by Sekaran and Bougie (2016) it has been clarified that several ethical issues should be addressed while collecting primary data. The following are some of the highlighted ethics and the researcher that are also followed in this dissertation:

(1) All data collected from individuals are safeguarded and remained strictly confidential.

(2) All individuals' demographic identity are kept safe and none were asked to contribute names, contact number nor email.

(3) According to the nature of this study and method of data collection, subject's self-report is not violated

(4) In the process of data collection all individuals responded to survey in the form of volunteering contribution once they're informed about the aim of the research.

(5) No data collection nor data analysis is subjected to any source of violation, misrepresentation or manipulation.

In addition, an evaluation by Ethics Committee of Eastern Mediterranean University is also taken into consideration.

4.9 Conclusion

This chapter covered all the steps necessary to design a research approach, questionnaire design and preparation, sampling size, sampling procedure and technique and data analysis plan. The finalized questionnaire in English and Farsi, and its content is available in Appendix A section of this dissertation for further study. In

addition to remarks ethics in data collection are also covered in this section to ensure

the audience is informed of sensitiveness and anonymousness of the survey.

Chapter 5

DATA ANALYSIS AND DISCUSSION

5.1 Introduction

This chapter covers analysis of the collected data from respondents. The first section of this chapter is the descriptive report of respondents addressing the demographic characteristics and descriptive analysis of scales. The second section is a follow up on the correlation analysis, where correlation between all variables are examined. The third section is independent samples t-test, as males and females mean differences are compared among each of independent and dependent variables. Then as the fourth section, ANOVA test is performed to have a deeper understanding of comparison between age groups, marital status, education and income level since they are presented with more than two definitive categories. After ANOVA, dataset is prepared for dimension reduction. The aim is to understand if the loading distribution of scales on factors is at least 50% and each component is loaded by a minimum of 3 constructs. Therefore, dataset is prepared for PLS analysis, and at a final step it is processed to find the relationship between moderating factor and independent variable and its effect on dependent variable, and to come to an understanding of which hypotheses of this study are supported.

5.2 Descriptive Analysis

The questionnaire surveyed in this dissertation is designed with a filter question as described in chapter four. This filter question limited the respondents to those only who have previous purchase experience of green products. This question also presents

a frequency report to understand how respondents are aware of presence of green products. The majority of data was collected via Google Forms, enabling the accuracy to limit a respondent to fill the questionnaire only once and prohibiting any who have selected filter question value as "No" to continue the survey. As seen in figure 5.1 from 293 online respondents, 83 marked "No" to report that 28% of participants have no previous purchase experience of green products.
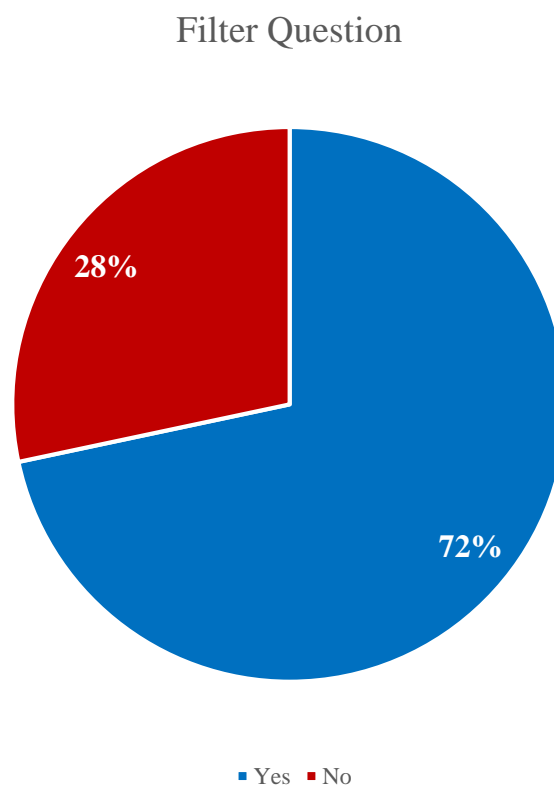
Figure 5.1: Summary of Respondents according to Filter Question (Source: Google Forms)

In this dissertation, a total of 550 questionnaires were collected both online and via written survey, that only 491 are considered as a representative sample to be taken. This simply means there are 491 Iranians who have previously purchased a green product as the scope of this dissertation.

Participants are also asked to provide information about the frequency of purchase related to recycled plastics in a month. The figure 5.2 summarizes the purchase frequency in a month.
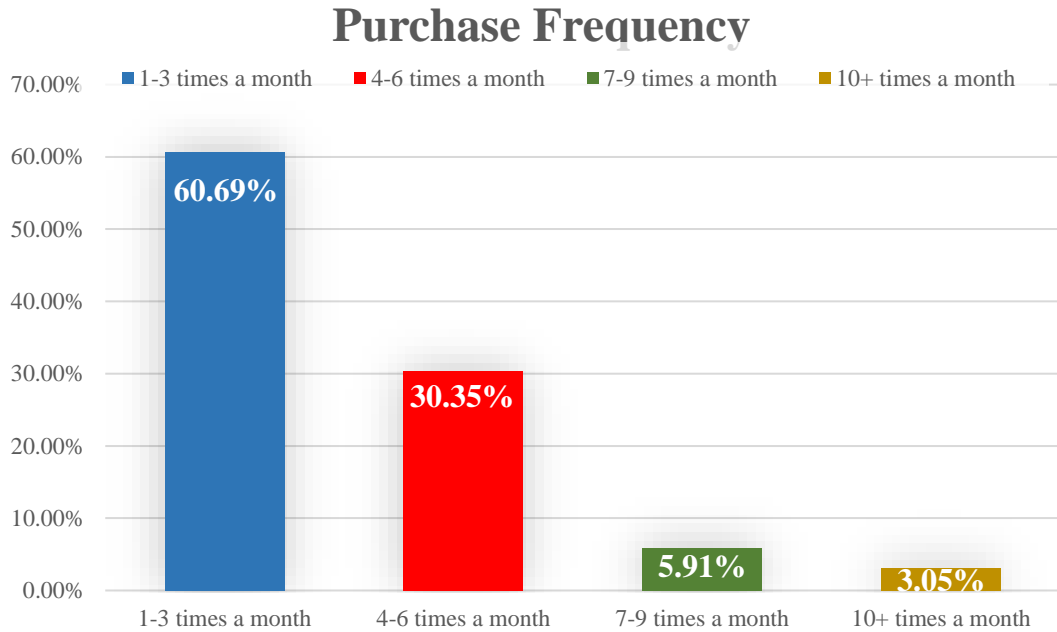
Figure 5.2: Summary of Respondents' Purchase Frequency

The findings can be expounded as the majority of respondents with 60.69% share purchase recycled plastic products 1 – 3 times a month. There are also respondents who purchase these articles 4 – 6 times a month and they have a share of 30.35%. There are other respondents who purchase 7 – 9 times a month and 10 times a month and more, that have a share of 5.91% and 3.05% respectively.

5.2.1 Demographic Characteristics

This section of analysis covers the demographic characteristics of Iranian respondents including gender, age, marital status, education level and income level, respectively. Each findings are presented with a chart for further examination.

5.2.1.1 Gender

The first characteristics to be reported is gender. There are 216 male respondents with a share of 44% and 275 female respondents with 56 % share as illustrated in figure 5.3.
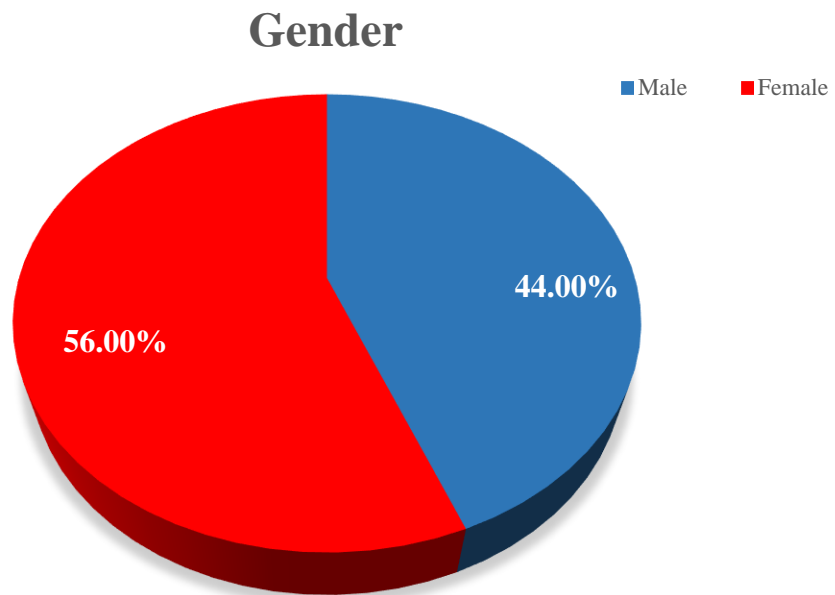
Gender

Figure 5.3: Gender Distribution

5.2.1.2 Age

The second characteristics to be reported is age. There are five age groups. The majority of respondents are divided into two categories. Age between 26 and 33, have a share of 33.81% with 166 participants followed by 30.14% share with 148 participants between 18 and 25 years of age. There are also 107 participants between age of 34 and 41, 46 participants between age of 42 and 49 and 24 participants above age of 50 with 21.79%, 9.37% and 4.89% shares respectively. Figure 5.4 illustrates the age distribution.

Age

- 18 - 25
- 26 - 33
- 34 - 41
- 42 - 49
- Above 50

30.14%
33.81%
21.79%
9.37%
4.89%
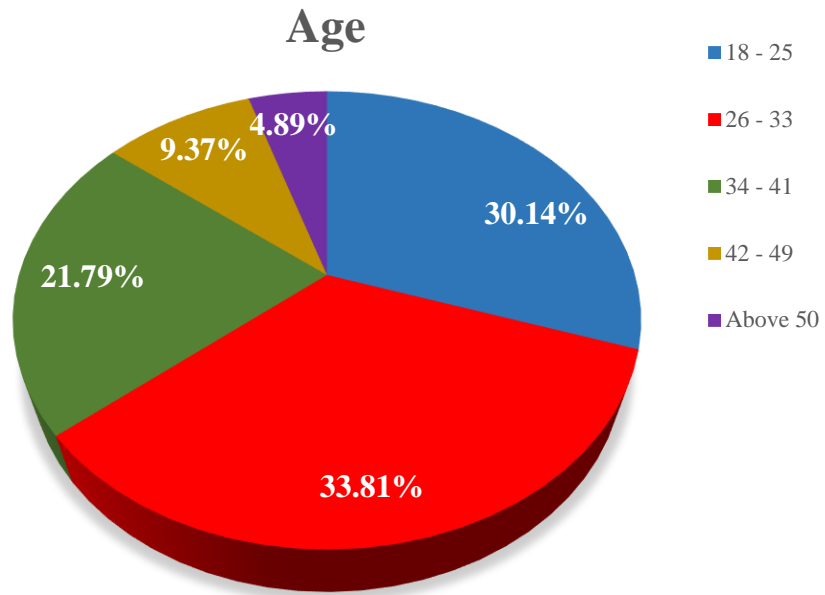
Figure 5.4: Age Distribution

5.2.1.3 Marital Status

The third characteristics to be reported is marital status. There are four marital status groups. The majority of respondents are divided into two categories. Married respondents have a share of 47.86% with a score of 235 followed by single respondents with a share of 47.66% and a score of 234. There are also divorced participants scoring 14 and respondents in other form of relationship scoring 8 with 2.85% and 1.63% shares respectively. Figure 5.5 illustrates marital status.

Marital Status

- Single
- Married
- Divorced
- Other

2.85%
1.63%
47.86%
47.66%
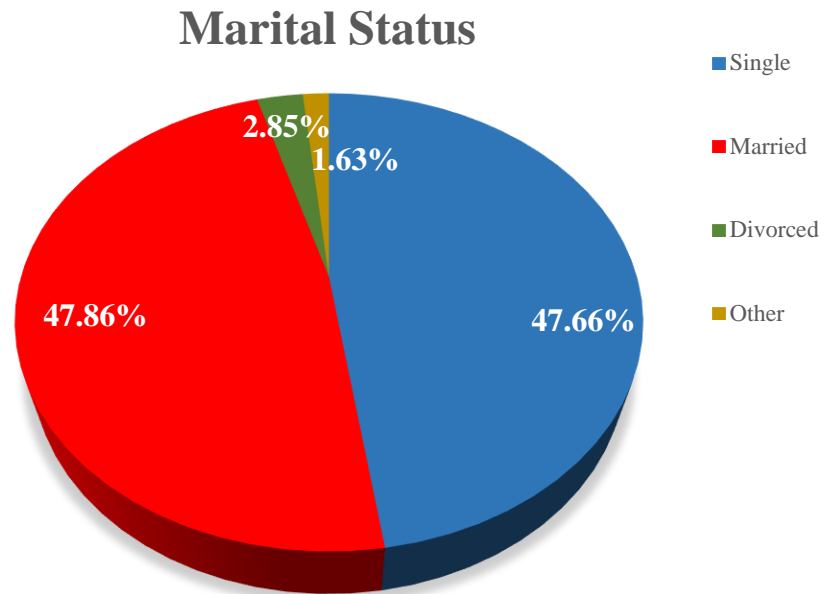
Figure 5.5: Marital Status

5.2.1.4 Education Level

The fourth characteristics to be reported is education level. There are four education level groups. Respondents with an undergraduate degree have a share of 39.92% with a score of 196 followed by respondents holding a graduate degree with a share of 34.42% and a score of 169. There are also participants with PhD degree scoring 107 and respondents in other form of education level scoring 19 with 21.79% and 3.87% shares respectively. Figure 5.6 illustrates education level.
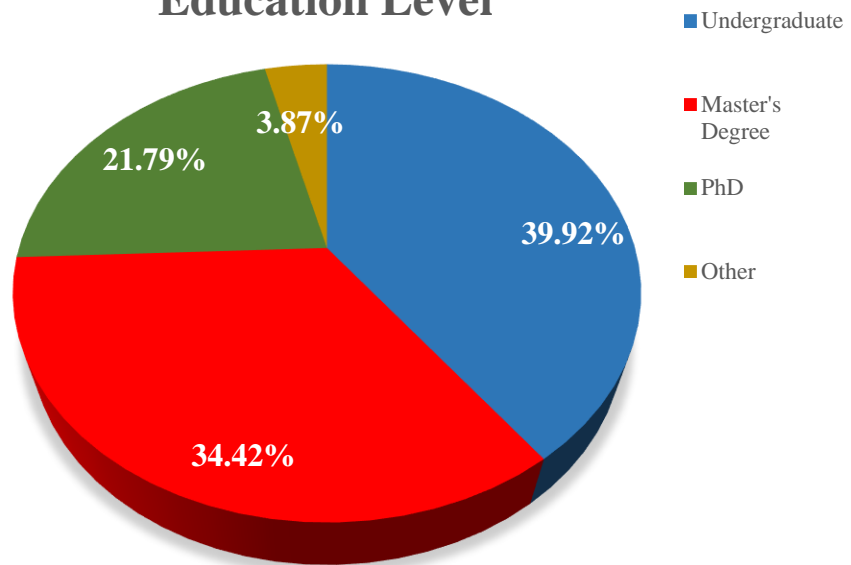
Figure 5.6: Education Level

5.2.1.5 Income Level

The fifth characteristics to be reported is income level. There are four income level groups. The income level is selected according to minimum wage in Iran at the time of study and with the conversion rate, where in the report it is presented as units in US dollar. Respondents with a monthly income between $201 and $400 have a share of 38.09% with a score of 187 followed by respondents with a monthly income between $401 and $600 have a share of 25.87% and a score of 127. There are also participants with an income less than $200 per month scoring 92 and respondents with an income more than $600 per month scoring 85 with 18.74% and 17.31% shares respectively. Figure 5.7 illustrates income level.
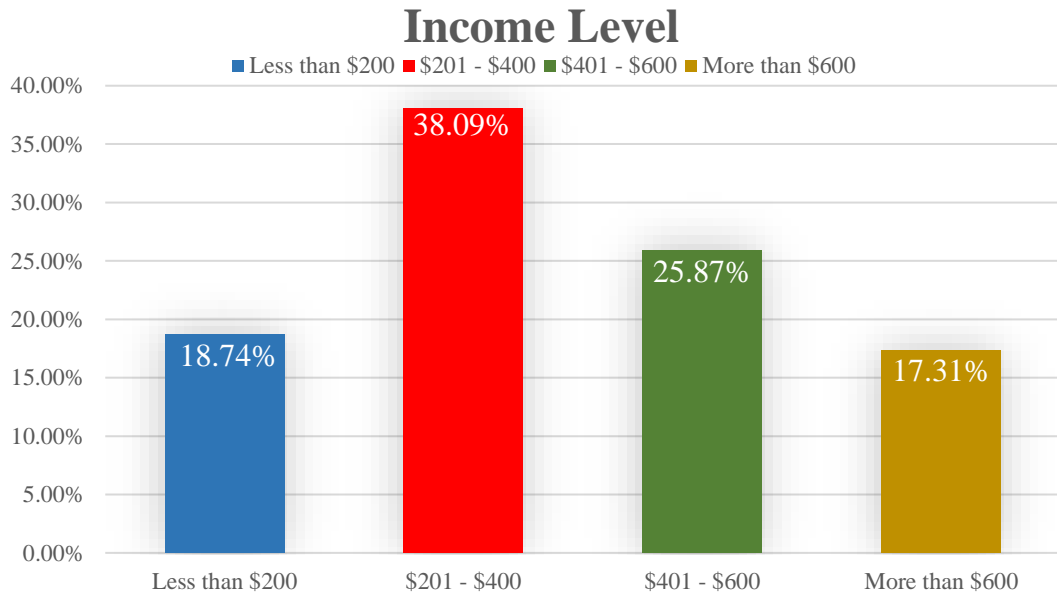
Figure 5.7: Income Level

The table 5.1 below, demonstrates the summary of demographic characteristics that have been thoroughly discussed.

Table 5.1: Summary of Demographic Characteristics

		Frequency	Percentage
Gender	Male	216	44
	Female	275	56
Age	18-25	148	30.14
	26-33	166	33.81
	34-41	107	21.79
	42-49	46	9.37
	Above 50	24	4.89
Marital Status	Single	234	47.66
	Married	235	47.86
	Divorced	14	2.85
	Other	8	1.63
Education Level	Undergraduate	196	39.92
	Master's Degree	169	34.42
	PhD	107	21.79
	Other	19	3.87
Income Level	Less than $200	92	18.74
	$201 - $400	187	38.09
	$401 - $600	127	25.87
	More than $600	85	17.31
Total		**491**	**100**

5.2.2 Scales

The table 5.2 below, demonstrates descriptive analysis of scales with their mean and

standard deviation.

Table 5.2: Descriptive Analysis of Scales

	Mean	Standard deviation (σ)
Utilitarian	**5.27**	**0.919**
I have personal interest related to recycled plastic products.	5.42	1.438
Recycled plastic products has connected with something I want, need or should need.	4.88	1.368
Recycled plastic products is or can be related with my interests.	5.16	1.402
Purchasing recycled plastic products can be beneficial for me.	5.44	1.351
Purchasing recycled plastic products has or can have significant consequences for me.	5.14	1.383
Purchasing recycled plastic products can reflect on my life.	5.45	1.273
By purchasing recycled plastic products I can achieve some wanted or I can avoid some unwanted consequences.	5.37	1.266
Social-Adjustive	**3.72**	**1.084**
By declaring or not declaring my attitude towards purchasing recycled plastic products I can manage with positiveness or negativeness of my relationships with others.	4.37	1.585
My attitude toward recycled plastic product is important to close persons.	4.19	1.816
My attitude toward purchasing recycled plastic products has a consequences on my relationships with others.	3.69	1.756
By purchasing recycled plastic products I can manage my relationships with others.	3.50	1.643
By my attitude toward recycled plastic products I can avoid unnecessary misunderstanding with others.	3.60	1.557
My attitude toward recycled plastic products is important for my friendships.	3.35	1.622
Changing my attitude toward recycled plastic products should have consequences on my relationships with close persons.	3.37	1.565
Value-Expressive	**4.64**	**1.021**

My attitude toward recycled plastic products speaks a lot about me as a person.	4.46	1.743
Based on my attitude toward recycled plastic products it can be concluded how I am as a person.	4.43	1.710
Declaring my attitude toward recycled plastic products I present some image about myself.	4.80	1.481
My attitude toward recycled plastic products represents my general principles and values.	4.51	1.734
With my attitude toward recycled plastic products I express own values and life principles.	4.90	1.375
My attitude toward recycled plastic products enable behavior in accordance with my values.	4.93	1.342
Through my attitude toward recycled plastic products others can figure real me.	4.40	1.645
My attitude towards recycled plastic products is in accordance with my self-image.	4.67	1.525
Emotional Value	**5.86**	**0.978**
Buying the green product instead of conventional products would feel like making a good personal contribution to something better.	5.91	1.105
Buying the green product instead of conventional products would feel like the morally right thing.	5.97	1.072
Buying the green product instead of conventional products would make me feel like a better person.	5.69	1.312
Attitude	**5.42**	**0.958**
Buying green products makes me feel good.	5.88	1.182
I love it when green products are available for the product categories I purchase.	5.76	1.189
For most product categories, the best buy is usually the green products.	5.22	1.425
Considering value for the money, I prefer green products.	5.03	1.452
When I buy a green product, I always feel that I am getting a good deal.	5.24	1.349
Purchase Intention	**5.25**	**1.028**
How likely is it that you would purchase a green product?	5.43	1.257
How likely is it that you would consider the purchase of a green product in short term?	4.88	1.388
How likely is it that you would consider the purchase of a green product in the long term?	5.44	1.246

The findings from the survey can be interpreted as follows. Utilitarian scale has a mean score of 5.27, this score represents slightly agree and tendency to agree of respondents towards a green product, specifically a recycled plastic product. In other words, evaluative function of respondents is slightly agree and agree towards the purchase of a recycled plastic product.

Following up the expressive function of attitude, Social-Adjustive scale has a mean of 3.72. Rounding up this score to 4 expresses that respondents are neither disagreeing nor agreeing with social expression act and most likely have a tendency to be neutral towards it. Value-Expressive scale has a mean of 4.64, this score however, represents that respondents are at a stage where they're more likely tend to agree and at some point agree with their achievement in terms of value expression.

Emotional value scale has a mean score of 5.86, this score represents slightly agree and tendency to agree of respondents towards a green product. In other words, if this score is rounded up to 6, purchase of a recycled plastic product has an emotional value for participants and as the majority of respondents are agree with this statement.

Attitude scale has a mean score of 5.42, this score represents slightly agree and tendency to agree of respondents towards a green product. To interpret, the attitude that guides the purchase of a recycled plastic product, is in the agree zone according to respondents. It is also important to note that in this scale, item number 4 have been removed in order to have a reliable scale and mean score is calculated excluding that item.

Finally, Purchase Intention scale has a mean score of 5.25, this score represents slightly likely and tendency to likely willingness of respondents to purchase a green product, specifically a recycled plastic product. In this scale, item number 4 have been removed in order to have a reliable scale and mean score is calculated excluding that item.

5.3 Correlation Analysis

Correlation analysis is performed to identify the existing linear relationship between two variables and assess direction and strength. Pearson correlation coefficient is a measure the strength and direction of the linear relationship between two variables, describing the direction and degree to which one variable is linearly related to another. The Pearson correlation coefficient has values from -1 to +1. A value of +1 demonstrates that the variables are perfectly linear related by an increasing relationship, a value of -1 demonstrates that the variables are perfectly linear related by a decreasing relationship, and a value of 0 show that the variables are not linear related by each other. Usually a strong correlation is considered if the coefficient is greater than 0.5, a moderate correlation if the coefficient is between 0.3 and 0.5, and a weak correlation if the correlation coefficient is less than 0.3 (Bolboaca.and Jäntschi, 2006; Pallant, 2010). As in this dissertation dependent variable is Purchase Intention, it is set as the main variable and its relationship with other variables has been analyzed and interpreted as follows.

5.3.1 Purchase Intention and Utilitarian

Based on the results of correlation analysis, it is possible to interpret that, Purchase Intention and Utilitarian function have a significant, moderate and positive correlation by 0.436. In other words, the more positive the Utilitarian function the higher the Purchase Intention and inversely.

5.3.2 Purchase Intention and Social-Adjustive

Moving on to the next variable, it is possible to interpret that, Purchase Intention and Social-Adjustive function have a significant, weak and positive correlation by 0.171. In other words, the more positive the Social-Adjustive function there's a slighter positive increase in the purchase intention mutually.

5.3.3 Purchase Intention and Value-Expressive

The second variable of expressive function, it is possible to interpret that, Purchase Intention and Value-Expressive function have a significant, weak and positive correlation by 0.289. In other words, the more positive the Value-Expressive function there's an inadequate positive increase in the purchase intention and reciprocally.

5.3.4 Purchase Intention and Emotional Value

For Emotional Value it is possible to interpret that, Purchase Intention and Emotional Value function have a significant, moderate and positive correlation by 0.330. In other words, the more positive the Emotional Value there's a positive increase in the purchase intention and reciprocally.

5.3.4 Purchase Intention and Value-Expressive

Finally it is possible to interpret that, Purchase Intention and Attitude function have a significant, moderate and positive correlation by 0.380. In other words, the more positive the Attitude function there's a moderate positive increase in the purchase intention and vice-versa.

5.3.5 Correlation Among all Variables

Based on the correlation analysis, all variables are significant at the 0.01 level and as a matter of fact it is possible to conclude that all variables have positive correlation with each other. Correlation analysis is summarized in table 5.3.

Table 5.3: Correlation Analysis of Variables

Variable	U	SA	VE	EV	AT	PI
U	1					
SA	0.241	1				
VE	0.432	0.450	1			
EV	0.411	0.227	0.436	1		
AT	0.382	0.302	0.439	0.588	1	
PI	0.436	0.171	0.289	0.330	0.380	1

5.4 Independent Samples T-test

The independent t-test, also called the two sample t-test, independent-samples t-test or student's t-test, is an inferential statistical test that is used to compare the mean scores of two different groups (Pallant, 2010). The purpose of independent t-test in this dissertation is to investigate the significance of the difference between two genders of male and female in all measured variables in this study.

Table 5.4: Gender Comparison with the Scales

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Ave_Utilitarian	Male	216	5.16	0.902	0.061
	Female	275	5.35	0.926	0.056
	Male	216	3.69	1.063	0.072

Ave_Social-Adjustive	Female	275	3.75	1.101	0.066
Ave_Value-Expressive	Male	216	4.46	1.002	0.068
	Female	275	4.78	1.016	0.061
Ave_Emotional Value	Male	216	5.81	0.941	0.064
	Female	275	5.89	1.006	0.061
Ave_Attitude	Male	216	5.26	0.955	0.065
	Female	275	5.55	0.944	0.057
Ave_Purchase Intention	Male	216	5.28	1.027	0.070
	Female	275	5.23	1.030	0.062

With a modest glance at table 5.4, it is possible to infer that there's small difference between the means of two genders in all variables.

In order to have a deeper understanding of this analysis, specifically to understand whether the difference is significant or not, it's recommended to examine Levene's test for equality of variances which is presented in the following table:

Table 5.5: Independent Samples t-test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df.	Sig. (2-tailed)
Ave_Utilitarian	Equal variances assumed	.259	.611	-2.201	489	.028
	Equal variances			-2.208	467.11	.028

	not assumed					
Ave_Social-Adjustive	Equal variances assumed	.134	.714	-.631	489	.529
	Equal variances not assumed			-.633	468.843	.527
Ave_Value-Expressive	Equal variances assumed	.000	.987	-3.405	489	.001
	Equal variances not assumed			-3.411	464.780	.001
Ave_Emotional Value	Equal variances assumed	.200	.655	-.966	489	.335
	Equal variances not assumed			-.974	474.326	.331
Ave_Attitude	Equal variances assumed	.131	.718	-3.334	489	.001
	Equal variances not assumed			-3.330	459.326	.001
Ave_Purchase Intention	Equal variances assumed	.019	.891	.546	489	.585
	Equal variances not assumed			.547	462.544	.585

In order to interpret the results, first p-value is examined. Whenever the p-value is greater than 0.05, it is assumed that homoscedasticity of variance exists and only focus

should be on the variables provided at the first line of table. On the other hand if p-value is lower than 0.05, then it is assumed that homoscedasticity of variance does not exists and the measurements on second line of the table is considered.

5.4.1 Utilitarian and Gender

Levene's test is 0.611, greater than $p=0.05$, thus homoscedasticity of variance is present and the first line of the table is considered. In t-test, the significant score is 0.028 which is less than $p=0.05$, thus it is concluded that males and females have a significant difference in terms of Utilitarian functions by -0.183 where the degree of freedom is also measured to be $t(-2.201)= 489$. This means that Utilitarian function among female respondents is higher than male respondents.

5.4.2 Social-Adjustive and Gender

Levene's test is 0.714, greater than $p=0.05$, thus homoscedasticity of variance is present. But in t-test, the score is 0.529 which is greater than $p=0.05$, thus it is concluded that males and females statistically do not have a significant difference in terms of their Social-Adjustive functions.

5.4.3 Value-Expressive and Gender

Levene's test is 0.987, greater than $p=0.05$, thus homoscedasticity of variance is present. But in t-test, the score is 0.001 which is less than $p=0.05$, thus it is concluded that males and females have a significant difference in terms of Value-Expressive functions by -0.313 where the degree of freedom is also measured to be $t(-3.405)= 489$. In simple words, female respondents tend to use more Value-Expressive function as a mean to purchase a recycled plastic product.

5.4.4 Emotional Value and Gender

Levene's test is 0.655, greater than $p=0.05$, thus homoscedasticity of variance is present. But in t-test, the score is 0.335 which is greater than $p=0.05$, thus it is

concluded that males and females statistically do not have a significant difference in terms of Emotional value.

5.4.5 Attitude and Gender

Levene's test is 0.718, greater than p=0.05, thus homoscedasticity of variance is present. But in t-test, the score is 0.001 which is less than p=0.05, thus it is concluded that males and females have a significant difference in terms of Attitude by -0.288 where degree of freedom is also measured to be t(-3.334)= 489. Green consumption attitude is examined to be higher in female respondents than in male respondents.

5.4.6 Purchase Intention and Gender

Levene's test is 0.891, greater than p=0.05, thus homoscedasticity of variance is present. But in t-test, the score is 0.585 which is greater than p=0.05, thus it is concluded that males and females statistically do not have a significant difference in terms of Purchase intentions.

5.5 One-Way ANOVA Test

Pallant (2010) suggests that use of analysis of variance or ANOVA, involves one independent variable, which has a number of different levels. To simply put in words, rest of demographic characteristics (independent variables) examined in this study have more than two groups to be associated with and ANOVA is the best appropriate method to examine whether the differences between the means are statistically significant or not.

ANOVA is dependent on Levene's test significancy. An insignificant p-value in Levene's test, p-value less than 0.05, presents no violation to the homogeneity of variances thus, ANOVA can be checked in latter stage. In case p-value in Levene's test is significant, the homogeneity of variances is violated thus, instead of checking

ANOVA, a robust test such as Brown or Welch is examined. Following up to ANOVA test a multiple comparison table is also suggested to be further investigated to summarize statistically significant differences between the means.

5.5.1 Age

The first demographic characteristic group to be examined is age. As instructed earlier upon running ANOVA test on SPSS, first Levene's significancy is taken into consideration to check if homogeneity of variances is present.

Table 5.6: Homogeneity of Variances between Purchase Intention and Age

Levene Statistic	df1	df2	Sig.
.175	4	486	.951

Levene's significancy score is 0.951, thus it is greater than p-value=0.05 therefore homogeneity of variances exists and as a result, it is possible to examine the following ANOVA table below.

Table 5.7: ANOVA Test (Purchase Intention and Age)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.584	4	3.396	3.273	.012
Within Groups	504.270	486	1.038		
Total	517.854	490			

The significance score in this table is 0.012 supporting a p-value less than 0.05, thus it means that there are significant difference among age groups presented when it comes to purchase intention. To have a better understanding of differences in between groups

and interpret accurately it is recommended to cross-examine the multiple comparison

table presented next.

Table 5.8: Multiple Comparison TUKEY HSD (Purchase Intention and Age)

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
18 - 25	26 - 33	-.367*	.115	.013	-.68	-.05
	34- 41	-.376*	.129	.031	-.73	-.02
	42 - 49	-.220	.172	.704	-.69	.25
	above 50	-.370	.224	.464	-.98	.24
26 - 33	18 - 25	.367*	.115	.013	.05	.68
	34- 41	-.009	.126	1.000	-.35	.34
	42 - 49	.147	.170	.909	-.32	.61
	above 50	-.004	.222	1.000	-.61	.61
34- 41	18 - 25	.376*	.129	.031	.02	.73
	26 - 33	.009	.126	1.000	-.34	.35
	42 - 49	.155	.180	.909	-.34	.65
	above 50	.005	.230	1.000	-.62	.63
42 - 49	18 - 25	.220	.172	.704	-.25	.69
	26 - 33	-.147	.170	.909	-.61	.32
	34- 41	-.155	.180	.909	-.65	.34
	above 50	-.150	.256	.977	-.85	.55

above 50	18 - 25	.370	.224	.464	-.24	.98
	26 - 33	.004	.222	1.000	-.61	.61
	34- 41	-.005	.230	1.000	-.63	.62
	42 - 49	.150	.256	.977	-.55	.85

An outward of this table prove that age group 18 and 25 have a statistically significant difference with age groups 26 and 33, and 34 and 41 by 0.367 and 0.376 respectively. To expound this, age groups 26 and 33, and 34 and 41, have higher average purchase intention compared to age group 18 and 25.

5.5.2 Marital Status

The second demographic characteristics group to be examined is marital status. After running ANOVA test on SPSS, first Levene's significancy is taken into consideration.

Table 5.9: Homogeneity of Variances between Purchase Intention and Marital Status

Levene Statistic	df1	df2	Sig.
1.038	3	487	.376

Score of 0.376 is greater than p-value=0.05 therefore homogeneity of variances exists and thus, it is possible to examine the following ANOVA table.

Table 5.10: ANOVA Test (Purchase Intention and Marital Status)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.516	3	1.505	1.428	.234
Within Groups	513.338	487	1.054		
Total	517.854	490			

The significance score in this table is 0.234 which is greater than 0.05, thus it means that there is no statistical significant difference among participants with different marital status groups when it comes to purchase intention and as a result no further investigation is necessary.

5.5.3 Education Level

The third group of demographic characteristics to be examined is education level. After running ANOVA test on SPSS, first Levene's significancy is taken into consideration.

Table 5.11: Homogeneity of Variances between Purchase Intention and Education

Levene Statistic	df1	df2	Sig.
.631	3	487	.596

Score of 0.596 is greater than p-value=0.05 therefore homogeneity of variances exists and thus, it is possible to examine the following ANOVA table.

Table 5.12: ANOVA Test (Purchase Intention and Education)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.816	3	3.673	3.539	.015
Within Groups	506.836	487	1.041		
Total	517.854	490			

The significance score in this table is 0.015 which is less than 0.05, thus it means that there is statistical significant difference among participants with different education

level groups when it comes to purchase intention. To have a better understanding of differences it is recommended to examine the multiple comparison table.

Table 5.13: Multiple Comparison TUKEY HSD (Purchase Intention and Education)

(I) Education Level	(J) Education Level	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Undergraduate	Master's Degree	-.300*	.107	.027	-.58	-.02
	PhD	-.239	.123	.208	-.56	.08
	Other	.171	.245	.899	-.46	.80
Master's Degree	Undergraduate	.300*	.107	.027	.02	.58
	PhD	.061	.126	.963	-.26	.39
	Other	.471	.247	.227	-.17	1.11
PhD	Undergraduate	.239	.123	.208	-.08	.56
	Master's Degree	-.061	.126	.963	-.39	.26
	Other	.410	.254	.372	-.24	1.06
Other	Undergraduate	-.171	.245	.899	-.80	.46
	Master's Degree	-.471	.247	.227	-1.11	.17
	PhD	-.410	.254	.372	-1.06	.24

An outward of this table prove that participants with an undergraduate degree have a statistically significant difference with those who accomplished a master's degree by 0.300. To expound this, respondents who have completed graduate studies, have

higher average in terms of purchase intentions compared to those who have undergraduate degree.

5.5.3 Income Level

The fourth group of demographic characteristics to be examined is income level. After running ANOVA test on SPSS, first Levene's significancy is taken into consideration.

Table 5.14: Homogeneity of Variances between Purchase Intention and Income

Levene Statistic	df1	df2	Sig.
.117	3	487	.950

Score of 0.950 is greater than p-value=0.05 therefore homogeneity of variances exists and thus, it is possible to examine the following ANOVA table.

Table 5.15: ANOVA Test (Purchase Intention and Income)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.799	3	1.933	1.838	.139
Within Groups	512.055	487	1.051		
Total	517.854	490			

The significance score in this table is 0.139 which is greater than 0.05, thus it means that there is no statistical significant difference among participants with different income level groups when it comes to purchase intention and as a rule, no further investigation is necessary.

5.6 Partial Least Square

As mentioned earlier in chapter four PLS has been developed and used in business disciplines and in the strategic management area. PLS model is expressed by a

structural part that contemplates the relationships between the latent variables, and a measurement component, which represents how the latent variables and their indicators are related. It also has a third component, the weight relations that are used to estimate case values for the latent variables (Chin and Newsted, 1999).

To form a relationship between the dependent variables and independent variables, where in this study dependent variable is Purchase Intention and independent variables are Utilitarian, Social-Adjustive, Value-Expressive and Emotional Value. To such, PLS generates new explanatory variables, often referred to as factors, latent variables, or components, where each component is a linear combination of independent variables. Commonly used standard regression methods determine equations relating the components to the dependent variable. PLS has similarities to principal components regression (PCR), where principal components shape the independent variables in a regression. However main difference is that with PCR, principal components are determined solely by the data values of the independent variables, whereas with PLS, the data values of both the dependent and independent variables influence the construction of components (Garthwaite, 1994)

In the following sections first the reliability and validity of constructs are measured in PLS to further provide factor loadings of items and in case necessary items will be removed for analysis. Subsequently, results and model fit is examined to create a finalized conclusion. Based on the asserted conclusion hypotheses are checked to examine which are supported and which are rejected.

5.6.1 Reliability and Validity

PLS is used to assess the psychometric properties of all the scales used in this study. A set of deliberation in PLS methods was used to evaluate the criteria for reliability,

convergent validity, and discriminant validity using composite reliability, factor loading, Average Variance Extracted (AVE), and Cronbach's alpha. First of all, factor loadings of measured items related to the constructs are measured through PLS modelling. Due to low factor loadings (< 0.6), the following items have been removed from the scales.

Table 5.16: Items Removed based on Factor Loadings

Scales	Items removed
Utilitarian	Utilitarian 1 and Utilitarian 2
Social-Adjustive	Social-Adjustive 4 and Social-Adjustive 5
Value-Expressive	Value-Expressive 1, Value-Expressive 2, Value-Expressive 4 and Value-Expressive 7
Emotional Value	No items removed
Attitude	Attitude 4
Purchase Intentions	Purchase Intentions 4

Subsequent to the factor analysis, composite reliability and Cronbach's alpha of the constructs have been measured and examined.

Cronbach's alpha or α as Pallant (2010) described, could be taken into consideration in the following categories: $\alpha \geq 0.90$ as excellent, $0.70 \leq \alpha < 0.90$ as good, $0.60 \leq \alpha < 0.70$ as acceptable, $0.50 \leq \alpha < 0.60$ as questionable and an $\alpha < 0.50$ is seen as unacceptable. When Cronbach's alpha is lower than 0.7, one major reason is that the items used in developing the construct are not very good and a possible scenario to improve this, is that some of the items need to be deleted (Churchill, 1979). Thus for "Attitude" and "Purchase Intention", this procedure was undertaken to achieve a

reliable scale. Composite reliability is sometimes used by scholars as an alternative. It's considered that composite reliability score is slightly higher than Cronbach's alpha and the difference can be relatively inconsequential (Peterson and Kim, 2013). As a result all the scales are above the acceptable thresholds respectively 0.5 and 0.7 proving that all the scales are reliable. The following table provide composite reliability and Cronbach's alpha as the measurement model results.

Table 5.17: Measurement Model Results

	Composite Reliability	Cronbach's Alpha
Attitude	0.842516	0.773653
Emotional Value	0.885170	0.710489
Purchase Intentions	0.842316	0.748088
Social-Adjustive	0.833755	0.782591
Utilitarian	0.851182	0.710501
Value-Expressive	0.821103	0.802642

Multiple tests have been carried out to measure the convergent, content and discriminant validity of the employed scales. AVE of the employed scales is used to test the convergent validity. All indicators exhibited an estimated coefficient higher than 0.5, and the AVE scores ranged from 0.52 to 0.72, respectively. Thus, it can be concluded from this data that the constructs had appropriate convergent validity.

Table 5.18: Average Variance Extracted (AVE)

	AVE
Attitude	0.521649

Emotional Value	0.722000
Purchase Intentions	0.647920
Social Adjustive	0.505665
Utilitarian	0.533765
Value-Expressive	0.534710

The content validity of a construct signifies that all the items designed to measure a specific construct are expected to have a higher loading in the construct were designed to measure. Thus, factor loading is applicable to assess the content validity as recommended by Hair, et al., (2010). Table 5.19 illustrates that all the variables significantly loaded on their respective constructs proving the content validity.

Table 5.19: Cross Loadings

	Attitude	Emotional Value	Purchase Intentions	Social-Adjustive	Utilitarian	Value-Expressive
AT1	0.787853	0.564668	0.300016	0.232507	0.332525	0.437511
AT2	0.790736	0.515221	0.346238	0.229154	0.349009	0.329843
AT3	0.726923	0.335809	0.255162	0.228501	0.248531	0.266490
AT5	0.523088	0.217478	0.235597	0.185948	0.210835	0.257748
AT6	0.748486	0.369930	0.261666	0.300932	0.297940	0.353123
EV1	0.635549	0.905819	0.363382	0.199646	0.382835	0.421760
EV2	0.579468	0.908423	0.314534	0.194893	0.341646	0.374405
EV3	0.475910	0.721290	0.216732	0.241590	0.326687	0.416384
PI1	0.383018	0.374258	0.920842	0.112563	0.432580	0.281349
PI2	0.242085	0.174788	0.589354	0.132165	0.195201	0.185872
PI3	0.298408	0.279951	0.865143	0.135850	0.405171	0.265814
SA1	0.179977	0.163655	0.190075	0.556622	0.246291	0.273693
SA2	0.274287	0.262572	0.166316	0.712449	0.223375	0.260231
SA3	0.228893	0.109170	0.083473	0.633358	0.119579	0.261060
SA6	0.230077	0.159950	0.062833	0.819738	0.207505	0.339542
SA7	0.209132	0.153865	0.042096	0.798624	0.156914	0.309542
U3	0.328880	0.343987	0.237924	0.194709	0.745752	0.318447
U4	0.273502	0.279766	0.429639	0.173188	0.755591	0.294476
U5	0.294189	0.232151	0.249862	0.259503	0.727859	0.281961
U6	0.327935	0.355455	0.311369	0.160571	0.695080	0.350937
U7	0.244090	0.278119	0.423383	0.192360	0.727218	0.280618

VE3	0.391427	0.371327	0.240831	0.325889	0.307042	0.745349
VE5	0.332326	0.334469	0.294097	0.300046	0.318726	0.764163
VE6	0.313828	0.332682	0.220960	0.209556	0.342565	0.726027
VE8	0.323629	0.339398	0.140253	0.343939	0.266765	0.687192

Finally, the discriminant validity is measured through Fornell and Larcker (1981) criteria. Discriminant validity refers to the degree to which a set of items can different a construct from other construct. Table 5.20 illustrates the latent variable correlations in which the diagonal element represent the square root of the AVE of the latent constructs. The root square of AVE measures are vertically and horizontally larger than the correlation coefficients of constructs indicating that the discriminant validity is confirmed.

Table 5. 20: Latent Variable Correlations

	Attitude	Emotional Value	Purchase Intentions	Social-Adjustive	Utilitarian	Value-Expressive
Attitude	0.73					
Emotional Value	0.668479	0.85				
Purchase Intentions	0.390631	0.357249	0.81			
Social-Adjustive	0.322397	0.245471	0.153473	0.71		
Utilitarian	0.407500	0.412877	0.443039	0.268183	0.73	
Value-Expressive	0.468781	0.472661	0.307987	0.405994	0.421655	0.73

5.6.2 Model Fit

In PLS, quality and model fitting are generally examined by two criteria, CV Redundancy and CV Communality. The communality index measures the quality of the measurement model for each block and the redundancy index measures the quality of the structural model for each endogenous block (Tenenhaus et al., 2005). Positive values refer to appropriate quality of model and values of these criteria have been demonstrated in table 5.21. After calculations, the GOF index (Goodness of Fit) is obtained equal to 0.35 which is a strong index indicating the good fit of model.

Table 5.21: CV Communality and Redundancy

	CV Com	**CV Red**
Attitude	0.294803	0.239540
Emotional Value	0.441366	0.721994
Purchase Intentions	0.337944	0.097342
Social-Adjustive	0.270491	0.505661
Utilitarian	0.533784	0.531204
Value-Expressive	0.453206	0.534709

5.6.3 Hypotheses Testing

The PLS structural model and hypotheses are assessed by examining path coefficients and their significance levels. Bootstrapping is performed on the model to obtain estimates of standard errors for testing the statistical significance of path coefficients using a t-test. Table 5.22 illustrates the results of hypotheses testing. All direct paths in the model were supported within the 0.001 significance level (t-statistics > 1.96).

Table 5.22: Path Coefficients and t-statistics

	Original Sample (O)	t-statistics (|O/STERR|)
Attitude → Purchase Intentions	0.390631	9.647391
Social-Adjustive → Attitude	0.113121	3.124060
Utilitarian → Attitude	0.096020	2.431519
Value-Expressive → Attitude	0.128327	2.995731
Value-Expressive * Emotional Value → Attitude	-0.065062	1.632755
Social-Adjustive * Emotional Value → Attitude	-0.075023	1.583698

To test the moderating effects of emotional value, the procedure by Keil et al. (2000) is adopted. The two moderating hypotheses are rejected due to low t-statistics scores (t-statistics <1.96) as mentioned in table 5.22.

Model Fitting, loadings and PLS results can be found on Appendix B section of this dissertation.

5.7 Conclusion

In total 6 hypotheses were developed to be tested in this study to explain the relation between attitudes as functions and consumer's purchasing intention. Based on the analysis covered in this chapter, 4 out of 6 hypotheses are supported. Table 5.23 represents the supported hypotheses of this dissertation.

Table 5.23: Hypotheses Findings

	Hypothesis Description	Findings
H1	Utilitarian function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.	✓
H2	Social-Adjustive function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.	✓
H3	Value-expressive function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.	✓
H4	Emotional value has a positive moderating effect on relationship between social-adjustive function and affective attitude.	✗
H5	Emotional value has a positive moderating effect on relationship between value-expressive function and affective attitude.	✗
H6	Attitude towards green products has a significant and positive effect on purchasing intentions.	✓

Chapter 6

CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

Literature review, Conceptual Framework and Methodology chapters all have come to a detailed analysis to interpret the findings into a presentable report which was fully discussed with tables in chapter five. In this chapter the study is completed with discussion of findings, recommendations, limitations and further research propositions.

This study originally hypothesized three dimensions of utilitarian, social-adjustive and value-expressive attitude, based on the original FAT (Katz, 1956), neofunctional (Herek, 1986) theory and interpretation from Carpenter (2012). A moderating factor, emotional value is also examined as a set of hypotheses to explore the effect on expressive functions category. Finally the affective attitude and its effect on the behavior (purchase intention) is examined.

6.2 Discussion of Findings

As a consummation of this study, it can be asserted that Iranian women have higher attitude towards green products compared to Iranian men. The findings from Independent Samples T-test report suggest that because of higher utilitarian and value-expression Iranian women have compared to Iranian men, they find green products a preferable option while purchasing.

This study suggests that, even though the number of green product purchase among age groups are different, in general young and middle aged consumers are a significant force as they express passionately their views about purchase decisions towards green products. However it is important for young adults to understand and grow conscious about occurring environmental concerns.

This two objectives had been previously investigated by Martinsons et al. (1997) and Lee (2008) with different products, location and sampling method. However it withholds that the same is applicable to Iranian population.

As another demographic characteristics, in terms of person characteristics upon matching FAT and hypotheses, marital status of respondents are examined, but the findings suggest that there are no statically and significant relation between marital status and purchase intention of green products.

High education and income levels were studied by Straughan and Roberts (1999) and their research suggested that individual with higher education and income level are more likely to purchase green products, unlikely in this study it is uncovered that income level has no significant effect on purchasing attitude towards green products among Iranians. On the other hand Iranians who carry a graduate degree are more likely to engage in green consumption behavior to some extent.

Formed on three dimensions of utilitarian, social-adjustive and value-expressive attitude, based on the original FAT (Katz, 1956), neofunctional (Herek, 1986) theory, and with clear understanding of Herek's argument, sources of attitude functions had been explored clearly in this research. The outcome surprisingly are robust and all

direct paths in the model were supported. To interpret this, in Iran purchase intention of green consumers are aroused with the affective attitude and this argument can be asserted by FAT with the empirical results as evidence to hypotheses.

Khan and Mohsin (2017), Lin and Huang (2012) explored the effect of emotional value on green products in Pakistan and Taiwan respectively, and how it effects consumer choice of behavior as a moderating factor. In Iran, it is not potent enough to drive a striking impact on social-adjustive and value-expressive attitude of consumers. In simple words the scope to which consumers' attitudes toward green products minister different social functions is much likely to vary in cross-cultural studies.

6.3 Recommendations

The findings in this dissertation is appropriate for producers and distributors of recycled plastic products to understand better what end users and consumers value the most and what barriers should be lifted upon approaching these customers to arouse their intentions to purchase. Since the study was conducted in Iran, it is applicable for managers, marketers, producers and distributors of green products in Iran. Based on the initial descriptive report, managers are advised to promote green products more often in Iran. Iran has a large population and the chose sample represented that almost 30% of the population are not aware of green products even though they're available in the market for almost a decade.

In terms of age group, managers are advised to tailor their advertising and promotional messages in such a way to reach all age groups. The findings asserted that young consumers are showing significant interest towards green products. In other studies such as Carrigan et al. (2004) it has been measured that older consumers are making a

significant contribution towards the consumer movement in ethical purchases, thus upper age groups should not be neglected.

More importantly the findings shows that middle income habitants of Iran are more interested in purchasing green product, hence managers should be advised that in order to create a balance, they should offer a wider range of product selection for low income habitants of Iran as well. Those with low income may consider not purchasing a green product even if they fully understand the good and positive outcomes of their action. It is concluded that green products can arouse both evaluative and expressive functions of attitude for consumers. Thus, spreading of information and knowledge about green product must be increased incessantly. As Mostafa (2009) claimed the environmental concern may influence basic human needs if not deliberate accordingly and only the wealthy will have the intention to purchase green products and ultimately become green consumers.

6.4 Limitations

First, the data in this dissertation were collected from Iranian residents and researchers must use this information with caution for future references in other regions.

Second, the original set of scales used in this study are in English and even the very precise translation to Farsi might still create a communication barrier despite the pretesting of the questionnaires.

Third, the data collection method conducted in this study was cross-sectional. In case of a longitudinal study the results of attitude might have been changed as green products market is a vast market and new trends such as governmental regulations,

organizational commitments and technological changes appear more often that might have significant effect on the results in time.

Fourth, the findings are exclusive on the recycled plastic products. Whether the results will apply equally in other product contexts cannot be stated. If other green products are considered as the core product, the outcome of analysis might vary from the original results obtained here.

Fifth, exclusivity on the recycled plastic products, also confirms the single product category issue, thereby results in the generalizability of the findings to be very limited.

Sixth, respondents' data is ministered by their attitudes, if other relevant population in another country is studied, results will vary significantly and this includes their own moral beliefs. Moreover, rather than to the actual green products online respondents were exposed to images of green products.

6.5 Further Research Propositions

It is highly suggested that, since the emotional value that had been reported in literature as a moderating factor was rejected in this study, as a future research, researcher should include other populations of interest as subject of study.

Upon examining demographic characteristics, it is suggested to consider the middle age and upper age group with more focus, as in most research in the field of green marketing, this age group had been left out and literature lack enough empirical results.

Although the study in hand is limited to the inspection of recycled plastic products generally, it is suggested for future research, it should be focused more on green

consumers' attitude on other features of recycled plastic products such label, packaging, values or services in the market.

6.6 Conclusion

One major goal of attitude research is to increase sales by better satisfying customer needs (Asiegbu et al., 2012). Based on the analysis and interpretation, the empirical evidence supported the following findings as limitations were confronted throughout the research process.

(1) Utilitarian function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.

(2) Social-Adjustive function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.

(3) Value-expressive function has a significant and positive effect on attitudes towards purchasing intention of recycled plastic products.

(4) Attitude towards recycled plastic products has a significant and positive effect on purchasing intentions.

Some future research propositions are suggested to provide deep levels of understanding and more meaningful contribution to the literature.

REFERENCES

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In *Action control* (pp. 11-39). Springer, Berlin, Heidelberg.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, *50*(2), 179-211.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall Inc

Ajzen, I., & Fishbein, M. (2000). Attitudes and the attitude-behavior relation: Reasoned and automatic processes. *European review of social psychology*, 11(1), 1-33.

Andrady, A. L., & Neal, M. A. (2009). Applications and societal benefits of plastics. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *364*(1526), 1977-1984.

Arnold, M. B. (1960). Emotion and personality.

Ashley, C., Oliver, J. D., & Zemanek, J. E. (2016). Trial-attitude formation in green product evaluations. *Atlantic Marketing Journal*, *5*(1), 3.

Asiegbu, I. F., Powei, D. M., & Iruka, C. H. (2012). Consumer attitude: Some reflections on its concept, trilogy, relationship with consumer behavior, and

marketing implications. *European Journal of Business and Management*, *4*(13), 38-50.

Bagozzi, R. P. (1980). *Causal models in marketing.* Wiley.

Bang, H. K., Ellinger, A. E., Hadjimarcou, J., & Traichal, P. A. (2000). Consumer concern, knowledge, belief, and attitude toward renewable energy: An application of the reasoned action theory. *Psychology & Marketing*, *17*(6), 449-468.

Bazzini, D. G., & Shaffer, D. R. (1995). Investigating the social-adjustive and value-expressive functions of well-grounded attitudes: Implications for change and for subsequent behavior. *Motivation and Emotion*, *19*(4), 279-305.

Bei, L. T., & Simpson, E. M. (1995). The determinants of consumers' purchase decisions for recycled products: an application of acquisition-transaction utility theory. *ACR North American Advances*.

Berkman, H. W., Lindquist, J. D., & Sirgy J. M. (1996). *Consumer behavior*, Chicago: NTC Business Book.

Bolboaca, S. D., & Jäntschi, L. (2006). Pearson versus Spearman, Kendall's tau correlation analysis on structure-activity relationships of biologic active compounds. *Leonardo Journal of Sciences*, *5*(9), 179-200.

Boztepe, A. (2012). Green marketing and its impact on consumer buying behavior. *European Journal of Economic & Political Studies*, *5*(1).

Brace, I. (2018). *Questionnaire design: How to plan, structure and write survey material for effective market research*. Kogan Page Publishers.

Burton, S., Lichtenstein, D. R., Netemeyer, R. G., & Garretson, J. A. (1998). A scale for measuring attitude toward private label products and an examination of its psychological and behavioral correlates. *Journal of the academy of marketing science*, *26*(4), 293.

Carpenter, C. J. (2012). A meta-analysis of the functional matching effect based on functional attitude theory. *Southern Communication Journal*, *77*(5), 438-451.

Carpenter, C. J. (2012). *Developments in Theory and Practice.* The SAGE Handbook of Persuasion

Carrigan, M., Szmigin, I., & Wright, J. (2004). Shopping for a better world? An interpretive study of the potential for ethical consumption within the older market. *Journal of Consumer Marketing*, *21*(6), 401-417.

Chin, W. W., & Newsted, P. R. (1999). Structural equation modeling analysis with small samples using partial least squares. *Statistical strategies for small sample research*, *1*(1), 307-341.

Churchill Jr, G. A. & Iacobucci, D. (2002). *Marketing Research: Methodological Foundations (8th ed.)* Harcourt College Publishers: Fort Worth. Consumer Marketing, Vol. 18 No. 3, pp. 107-146.

Churchill Jr, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of marketing research*, *16*(1), 64-73.

Cude, B. (1993). Does it cost more to buy green. In *Proceedings of the American Council on Consumer Interests*(Vol. 39, pp. 108-13).

De Pelsmacker, P., Driesen, L., & Rayp, G. (2005). Do consumers care about ethics? Willingness to pay for fair-trade coffee. *Journal of consumer affairs*, *39*(2), 363-385.

DeBono, K. G. (2000). Attitude functions and consumer psychology: Understanding perceptions of product quality. *Why we evaluate: Functions of attitudes*, 195-221.

Desmet, P., Overbeeke, K., & Tax, S. (2001). Designing products with added emotional value: Development and appllcation of an approach for research through design. *The design journal*, *4*(1), 32-47.

Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of marketing research*, *28*(3), 307-319.

Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual review of psychology*, *53*(1), 109-132.

Ewadinger, M., & Mouw, S. (2005). Recycling creates jobs and boosts economy. *Biocycle*, *46*(10), 43.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.

Franc, R., & Brkljačić, T. (2006). Self-report measure of attitude functions: instrumental attitudes towards condom use and value-expressive attitudes towards voting?. *Review of psychology*, *12*(2), 147-154.

Frijda, N. H. (1986). *The emotions*. Cambridge University Press.

Garthwaite, P. H. (1994). An interpretation of partial least squares. *Journal of the American Statistical Association*, *89*(425), 122-127.

Gass, R. H., & Seiter, J. S. (2010). Persuasion, social influence and compliance gaining: International edition.

Gonçalves, H. M., Lourenço, T. F., & Silva, G. M. (2016). Green buying behavior and the theory of consumption values: A fuzzy-set approach. *Journal of Business Research*, *69*(4), 1484-1491.

Grant, J. (2010). *Green marketing manifesto*. Sussex: Wiley.

Guagnano, G. A. (2001). Altruism and market-like behavior: An analysis of willingness to pay for recycled paper products. *Population and Environment*, *22*(4), 425-438.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2013). *Multivariate data analysis: Pearson new international edition*. Pearson Higher Ed.

Han, H., & Kim, Y. (2010). An investigation of green hotel customers' decision formation: Developing an extended model of the theory of planned behavior. *International Journal of Hospitality Management*, *29*(4), 659-668.

Hansen, W., Christopher, M., & Verbuecheln, M. (2002). EU Waste Policies and Challenges for Local and Regional Authorities. *Capacity Building on European Community's Environmental Policy*

Hart, S. L., & Milstein, M. B. (1999). Global sustainability and the creative destruction of industries. *MIT Sloan Management Review*, *41*(1), 23.

Hartmann, P., & Apaolaza Ibáñez, V. (2006). Green value added. *Marketing Intelligence & Planning*, *24*(7), 673-680.

Helmreich, R. (1983). *Achievement and achievement motives: Psychological and sociological approaches*. J. T. Spence (Ed.). WH Freeman.

Henerson, M. E., Morris, L. L., & Fitz-Gibbon, C. T. (1987). *How to measure attitudes*. Sage.

Henion, K. E., & Kinnear, T. C. (1976). A guide to ecological marketing. *Ecological Marketing. Columbus, Ohio: American Marketing Association*.

Herek, G. M. (1986). The instrumentality of attitudes: Toward a neofunctional theory. *Journal of Social Issues*, *42*(2), 99-114.

Herek, G. M. (1987). Can functions be measured? A new perspective on the functional approach to attitudes. *Social psychology quarterly*, 285-303.

Herek, G. M. (2000). The social construction of attitudes: Functional consensus and divergence in the US public's reactions to AIDS. *Why we evaluate: Functions of attitudes*, 325-364.

Hill, R. (1998). What sample size is "enough" in internet survey research. *Interpersonal Computing and Technology: An electronic journal for the 21st century*, *6*(3-4), 1-12.

Hirshman, E. C. (1980) Attributes and layers of meaning. Advances in consumer research. *Association for Consumer Research*.

Howard, J. A., & Sheth, J. N. (1969). The theory of buyer behavior. *New York*, *63*.

Hullett, C., & Boster, F. (2001). Matching messages to the values underlying value-expressive and social-adjustive attitudes: Reconciling an old theory with a contemporary measurement approach. *Communication Monographs*, *68*(2), 133-153.

Hunt, N., & Dorfman, B. (2009). How green is my wallet? Organic food growth slows. *Reuters. Retrieved February*, *20*, 2009.

Jain, S. K., & Kaur, G. (2006). Role of socio-demographics in segmenting and profiling green consumers: an exploratory study of consumers in India. *Journal of International Consumer Marketing*, *18*(3), 107-146.

Jolliffe, I. (2011). *Principal component analysis* (pp. 1094-1096). Springer Berlin Heidelberg.

Julka, D. L., & Marsh, K. L. (2005). An Attitude Functions Approach to Increasing Organ-Donation Participation 1. *Journal of Applied Social Psychology*, *35*(4), 821-849.

Kashmanian, R. M., Ferrand, T., Hurst, K., & Kuusinen, T. L. (1990). Let's Topple the Recycling Wall, Too. *Marketing News*, *24*(6), 20.

Katz, D. (1960). The functional approach to the study of attitudes. *Public opinion quarterly*, *24*(2), 163-204.

Katz, D., Sarnoff, I., & McClintock, C. (1956). Ego-defense and attitude change. *Human Relations*, *9*(1), 27-45.

Keil, M., Tan, B. C., Wei, K. K., Saarinen, T., Tuunainen, V., & Wassenaar, A. (2000). A cross-cultural study on escalation of commitment behavior in software projects. *MIS quarterly*, 299-325.

Khan, S. N., & Mohsin, M. (2017). The power of emotional value: Exploring the effects of values on green product consumer choice behavior. *Journal of Cleaner Production*, *150*, 65-74.

Kilbourne, W. (2010). Facing the challenge of sustainability in a changing world: an introduction to the special issue, *Journal of Research on Consumers*, (17), pp. 1-17.

Kim, A. J., & Ko, E. (2012). Do social media marketing activities enhance customer equity? An empirical study of luxury fashion brand. *Journal of Business research*, *65*(10), 1480-1486.

Kinoti, M. W. (2011). Green marketing intervention strategies and sustainable development: A conceptual paper. *International Journal of Business and Social Science*, 2(23), pp. 263. 32

Knight Lapinski, M., & Boster, F. J. (2001). Modeling the ego-defensive function of attitudes. *Communication Monographs*, *68*(3), 314-324.

Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.

Kotler, P. (2000). Marketing in the twenty-first century. *Marketing Management, 10th Edition, Millenium, New Jersey*.

Kumar, P., & Ghodeswar, B. M. (2015). Factors affecting consumers' green product purchase decisions. *Marketing Intelligence & Planning*, *33*(3), 330-347.

Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of consumer marketing*, *18*(6), 503-520.

Lee, K. (2008). Opportunities for green marketing: young consumers. *Marketing intelligence & planning*, *26*(6), 573-586.

Lin, P. C., & Huang, Y. H. (2012). The influence factors on choice behavior regarding green products based on the theory of consumption values. *Journal of Cleaner Production*, *22*(1), 11-18.

Locander, W. B., & Spivey, W. A. (1978). A functional approach to attitude measurement. *Journal of Marketing Research*, *15*(4), 576-587.

Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and social psychology Bulletin*, *18*(1), 3-9.

Malhotra, N. K. (2011). *Basic marketing research*. Pearson Higher Ed.

Mano, H., & Oliver, R. L. (1993). Assessing the dimensionality and structure of the consumption experience: evaluation, feeling, and satisfaction. *Journal of Consumer research*, *20*(3), 451-466.

Martinsons, M. G., So, S. K., Tin, C., & Wong, D. (1997). Hong Kong and China: emerging markets for environmental products and technologies. *Long Range Planning*, *30*(2), 277-156.

May So, W. C., Danny Wong, T. N., & Sculli, D. (2005). Factors affecting intentions to purchase via the internet. *Industrial Management & Data Systems*, *105*(9), 1225-1244.

McCarthy, E. J. (1960). Basic marketing: a managerial approach. Homewood, Illinois: Richard D. Irwin. *Inc. McCarthyBasic Marketing: A Managerial Approach1960*.

McDaniel, S. W., & Rylander, D. H. (1993). Strategic green marketing. *Journal of consumer marketing*, *10*(3), 4-10.

Mebratu, D. (1998). Sustainability and sustainable development: historical and conceptual review. *Environmental impact assessment review*, *18*(6), 493-520.

Min, H., & Galle, W. P. (1997). Green purchasing strategies: trends and implications. *International Journal of Purchasing and Materials Management*, *33*(2), 10-17.

Mobley, A. S., Painter, T. S., Untch, E. M., & Rao Unnava, H. (1995). Consumer evaluation of recycled products. *Psychology & Marketing*, *12*(3), 165-176.

Moisander, J. (2007). Motivational complexity of green consumerism. *International journal of consumer studies*, *31*(4), 404-409.

Morrison, D. G. (1979). Purchase intentions and purchase behavior. *Journal of marketing*, *43*(2), 65-74.

Mostafa, M. M. (2009). Shades of green: A psychographic segmentation of the green consumer in Kuwait using self-organizing maps. *Expert Systems with Applications*, *36*(8), 11030-11038.

Netemeyer, R. G., Andrews, J. C., & Durvasula, S. (1993). A comparison of three behavioral intention models: The case of Valentine's Day gift-giving. *ACR North American Advances*.

Oppermann, M. (1995). Travel life cycle. *Annals of tourism research*, *22*(3), 535-552.

Otoo, M., & Drechsel, P. (2018). *Resource recovery from waste: business models for energy, nutrient and water reuse in low-and middle-income countries*. Routledge.

Ottman, J., & Books, N. B. (1998). Green marketing: opportunity for innovation. *The Journal of Sustainable Product Design*, *60*(7), 136-667.

Pallant, J. (2010). SPSS Survival Manual, 4th edn. Berkshire.

Peterson, R. A., & Kim, Y. (2013). On the relationship between coefficient alpha and composite reliability. *Journal of Applied Psychology*, *98*(1), 194.

PlasticsEurope. (2018). Annual review 2017-2018. Brussels-Belgium: *PlasticsEurope* AISBL. [28.5.2019]

Polonsky, M. J. (1994). An introduction to green marketing. *Electronic green journal*, *1*(2).

Ramnath, B., Elanchezhian, C., & Kesavan, R. (2011). A multi attribute decision making method for selection of optimal assembly line. *Management Science Letters*, *1*(1), 65-72.

Rashid, N. R. N. A. (2009). Awareness of eco-label in Malaysia's green marketing initiative. *International Journal of Business and Management*, *4*(8), 132-141.

Rex, E., & Baumann, H. (2007). Beyond ecolabels: what green marketing can learn from conventional marketing. *Journal of cleaner production*, *15*(6), 567-576.

Rivera-Camino, J. (2007). Re-evaluating green marketing strategy: a stakeholder perspective. *European journal of marketing*, *41*(11/12), 1328-1358.

Schaefer, A., & Crane, A. (2001). Rethinking green consumption.

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.

Sela, A., Berger, J., & Liu, W. (2008). Variety, vice, and virtue: How assortment size influences option choice. *Journal of Consumer Research*, *35*(6), 941-951.

Shamdasani, P., Chon-Lin, G. O., & Richmond, D. (1993). Exploring green consumers in an oriental culture: role of personal and marketing mix factors. *ACR North American Advances*.

Shavitt, S. (1989). Products, personalities and situations in attitude functions: implications for consumer behavior. *ACR North American Advances*.

Shavitt, S., & Lowrey, T. M. (1992). Attitude functions in advertising effectiveness: The interactive role of product type and personality type. *ACR North American Advances*.

Shavitt, S., & Nelson, M. R. (2002). The role of attitude functions in persuasion and social judgment. *The persuasion handbook: Developments in theory and practice*, 137-153.

Shavitt, S., Swan, S., Lowrey, T. M., & Wänke, M. (1994). The interaction of endorser attractiveness and involvement in persuasion depends on the goal that guides message processing. *Journal of Consumer Psychology*, *3*(2), 137-162.

Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of consumer research*, *15*(3), 325-343.

Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. *Journal of business research*, *22*(2), 159-170.

Simonson, M. R., & Maushak, N. (1996). Instructional technology and attitude change.

Singh, N., Hui, D., Singh, R., Ahuja, I. P. S., Feo, L., & Fraternali, F. (2017). Recycling of plastic solid waste: A state of art review and future applications. *Composites Part B: Engineering*, *115*, 409-422.

Singh, P. B., & Pandey, K. K. (2012). Green marketing: policies and practices for sustainable development. *Integral Review*, *5*(1), 22-30.

Sitnikov, C. S., Vasilescu, L., Ogarcă, R., & Tudor, S. (2015). Matrix model for choosing green marketing sustainable strategic alternatives. *Amfiteatru Economic Journal*, *17*(40), 909-926.

Smith, M.B., Bruner, J.S. & White, R.W. (1956). *Opinions and personality.* New York: Wiley.

Snyder, M. (1974). Self-monitoring of expressive behavior. *Journal of personality and social psychology*, *30*(4), 526.

Snyder, M., & DeBono, K. G. (1985). Appeals to image and claims about quality: Understanding the psychology of advertising. *Journal of personality and Social Psychology*, *49*(3), 586.

Snyder, M., Clary, E. G., Stukas, A. A., Maio, G. R., & Olson, J. M. (2000). Why we evaluate: Functions of attitudes. *The functional approach to volunteerism*, 365-393.

Soonthonsmai, V. (2007, June). Environmental or green marketing as global competitive edge: Concept, synthesis, and implication. In *EABR (Business) and ETLC (Teaching) Conference Proceeding, Venice, Italy*.

Stotland, E., Katz, D., & Patcshen, M. (1959). The reduction of prejudice through the arousal of self-insight 1. *Journal of Personality*, *27*(4), 507-531.

Straughan, R. D., & Roberts, J. A. (1999). Environmental segmentation alternatives: a look at green consumer behavior in the new millennium. *Journal of consumer marketing*, *16*(6), 558-575.

Strong, C. (1996). Features contributing to the growth of ethical consumerism-a preliminary investigation. *Marketing Intelligence & Planning*, *14*(5), 5-13.

Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). *Using multivariate statistics* (Vol. 5). Boston, MA: Pearson.

Tekade, A. B., & Sastikar, S. S. (2015). Present Green Marketing: Importance and challenges in Customer satisfaction. *International Journal for Administration in Management, Commerce and Economics,(3)*, 308-312.

Tenenhaus, M., & Vinzi, V. E. (2005). PLS regression, PLS path modeling and generalized Procrustean analysis: a combined approach for multiblock analysis. *Journal of Chemometrics: A Journal of the Chemometrics Society*, *19*(3), 145-153.

Thompson, R. C., Moore, C. J., Vom Saal, F. S., & Swan, S. H. (2009). Plastics, the environment and human health: current consensus and future trends. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *364*(1526), 2153-2166.

Tucker, M. F. (2006). Becoming the world's coolest recycler. *IN BUSINESS-EMMAUS PENNSYLVANIA-*, *28*(5), 14.

Van der Heijden, H., & Verhagen, T. (2004). Online store image: conceptual foundations and empirical measurement. *Information & Management*, *41*(5), 609-617.

Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003). Measuring the hedonic and utilitarian dimensions of consumer attitude. *Journal of marketing research*, *40*(3), 310-320.

Weeks, J. (2006). Take this product back and recycle it!. *IN BUSINESS-EMMAUS PENNSYLVANIA-*, *28*(6), 12.

APPENDICES

Appendix A: Questionnaire

Thesis Questionnaire

This academic project is aiming to understand purchasing intentions towards green products. Taking the time to complete the questionnaire is of high importance and your contribution is highly appreciated. Each questionnaire is kept anonymous. An honest opinion is most important, please do consider that THERE ARE NO RIGHT OR WRONG ANSWERS.

Q1: Have you ever purchased a "green product"?

| YES | | NO |

If you selected "Yes" please proceed / if you selected "No" please stop and do not proceed

Q2: Please indicate the extent to which you agree or disagree with each of the following statements.
(Please tick/circle only one box per line)

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
a) I have personal interest related to recycled plastic products.	1	2	3	4	5	6	7
b) Recycled plastic products has connected with something I want, need or should need.	1	2	3	4	5	6	7
c) Recycled plastic products is or can be related with my interests.	1	2	3	4	5	6	7
d) Purchasing recycled plastic products can be beneficial for me.	1	2	3	4	5	6	7
e) Purchasing recycled plastic products has or can have significant consequences for me.	1	2	3	4	5	6	7
f) Purchasing recycled plastic products can reflect on my life.	1	2	3	4	5	6	7
g) By purchasing recycled plastic products I can achieve some wanted or I can avoid some unwanted consequences.	1	2	3	4	5	6	7

Q3: Please indicate the extent to which you agree or disagree with each of the following statements.
(Please tick/circle only one box per line)

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
a) By declaring or not declaring my attitude towards purchasing recycled plastic products I can	1	2	3	4	5	6	7

	manage with positiveness or negativeness of my relationships with others.							
b)	My attitude toward recycled plastic products is important to close persons.	1	2	3	4	5	6	7
c)	My attitude toward purchasing recycled plastic products has a consequences on my relationships with others.	1	2	3	4	5	6	7
d)	By purchasing recycled plastic products I can manage my relationships with others.	1	2	3	4	5	6	7
e)	By my attitude toward recycled plastic products I can avoid unnecessary misunderstanding with others.	1	2	3	4	5	6	7
f)	My attitude toward recycled plastic products is important for my friendships.	1	2	3	4	5	6	7
g)	Changing my attitude toward recycled plastic products should have consequences on my relationships with close persons.	1	2	3	4	5	6	7

Q4: Please indicate the extent to which you agree or disagree with each of the following statements.
(Please tick/circle only one box per line)

		Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
a)	My attitude toward recycled plastic products speaks a lot about me as a person.	1	2	3	4	5	6	7
b)	Based on my attitude toward recycled plastic products it can be concluded how I am as a person.	1	2	3	4	5	6	7
c)	Declaring my attitude toward recycled plastic products I present some image about myself.	1	2	3	4	5	6	7
d)	My attitude toward recycled plastic products represents my general principles and values.	1	2	3	4	5	6	7
e)	With my attitude toward recycled plastic products I express own values and life principles.	1	2	3	4	5	6	7

f)	My attitude toward recycled plastic products enable behavior in accordance with my values.	1	2	3	4	5	6	7

g)	Through my attitude toward recycled plastic products others can figure real me.	1	2	3	4	5	6	7

h)	My attitude towards recycled plastic products is in accordance with my self-image.	1	2	3	4	5	6	7

Q5: Please indicate the extent to which you agree or disagree with each of the following statements.
(Please tick/circle only one box per line)

		Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
a)	Buying the green product instead of conventional products would feel like making a good personal contribution to something better.	1	2	3	4	5	6	7
b)	Buying the green product instead of conventional products would feel like the morally right thing.	1	2	3	4	5	6	7
c)	Buying the green product instead of conventional products would make me feel like a better person.	1	2	3	4	5	6	7

Q6: Please indicate the extent to which you agree or disagree with each of the following statements.
(Please tick/circle only one box per line)

		Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
a)	Buying green products makes me feel good.	1	2	3	4	5	6	7
b)	I love it when green products are available for the product categories I purchase.	1	2	3	4	5	6	7
c)	For most product categories, the best buy is usually the green products.	1	2	3	4	5	6	7
d)	In general, green products are poor-quality products.	1	2	3	4	5	6	7

Thesis Questionnaire

e) Considering value for the money, I prefer green products.	1	2	3	4	5	6	7

| f) When I buy a green product, I always feel that I am getting a good deal.	1	2	3	4	5	6	7

Q7: Please indicate the extent of your likelihood with each of the following statements.
(Please tick/circle only one box per line)

	Highly Unlikely	Unlikely	Slightly Unlikely	Neither Unlikely nor Likely	Slightly Likely	Likely	Highly Likely
a) How likely is it that you would purchase a green product?	1	2	3	4	5	6	7
b) How likely is it that you would consider the purchase of a green product in short term?	1	2	3	4	5	6	7
c) How likely is it that you would consider the purchase of a green product in the long term?	1	2	3	4	5	6	7
d) How likely is it that you would consider the purchase of a recycled plastic product if you need a plastic product?	1	2	3	4	5	6	7

Q8: Please specify below your:
(Please tick only one box per question)

a) Gender

Male	1
Female	2

b) Age

18 - 25	1
26 - 33	2
34 - 41	3
42 - 49	4
Above 50	5

c) Marital Status:

Single	1
Married	2
Divorced	3
Other (please specify):	....

Thesis Questionnaire

d) How often do you purchase recycled plastic products?

1 – 3 times a month	1
4 – 6 times a month	2
7 – 9 times a month	3
10+ times a month	4

e) Education Level:

Undergraduate	1
Master's Degree	2
PhD	3
Other (please specify):	....

f) Income Level:

Less than $200	1
$201 – $400	2
$401 - $600	3
More than $600	4

Thank you for your time and participation☺

هدف اصلی این پروژ درک بهتر از رفتار و بررسی عوامل تاثیر گذار بر رفتار در خرید محصولات سبز می باشد. زمانی که شما برای تکمیل این پرسشنامه می گذارید برای اینجانب از اهمیت بالایی برخوردار است. هویت پاسخ دهندگان محفوظ می ماند. خواهشمند است هر سوال را با دقت پاسخ دهید و <u>در نظر داشته باشید که هیچ جواب صحیح و غلطی وجود ندارد.</u>

سوال اول) آیا تا بحال "کالای سبز" خریده اید؟

آری		نه

اگر گزینه "آری" را انتخاب کردید به قسمت بعدی پاسخنامه بروید / اگر گزینه "نه" را انتخاب کردید لطفأ ادامه ندهید، با تشکر

سوال دوم) لطفأ موافقت و یا مخالفت خود را با هر یک از اظهارها در جمله های زیر مشخص کنید

(خواهشمند است فقط یکی از گزینه ها را در هر سطر انتخاب کنید)

		به شدت مخالفم	مخالفم	تا اندازه ای مخالفم	نه مخالف و نه موافق	تا اندازه ای موافقم	موافقم	به شدت موافقم
الف)	من علاقه شخصی به محصولات پلاستیکی بازیافتی دارم.	1	2	3	4	5	6	7
ب)	محصولات پلاستیکی بازیافت شده مرتبط با چیزی است که من می خواهم، نیاز دارم یا باید بخرم.	1	2	3	4	5	6	7
ت)	محصولات پلاستیکی بازیافت شده مطابق با منافع من بوده یا می تواند باشد.	1	2	3	4	5	6	7
ث)	خرید محصولات پلاستیکی بازیافتی می تواند برای من مفید باشد.	1	2	3	4	5	6	7
ج)	خرید محصولات پلاستیکی بازیافت شده دارای پیامدهای قابل توجهی برای من بوده یا پیامدهای قابل توجهی بهمراه داشته باشد.	1	2	3	4	5	6	7
ح)	خرید محصولات پلاستیکی بازیافتی می تواند بر روی زندگی من تاثیر بگذارد.	1	2	3	4	5	6	7
خ)	با خرید محصولات پلاستیکی بازیافتی، می توانم برخی ازنتایج خواسته را بگیرم و یا می توانم از عواقب ناخواسته اجتناب کنم.	1	2	3	4	5	6	7

سوال سوم) لطفاً موافقت و یا مخالفت خود را با هر یک از اظهارها در جمله های زیر مشخص کنید

(خواهشمند است فقط یکی از گزینه ها را در هر سطر انتخاب کنید)

		به شدت مخالفم	مخالفم	تا اندازه ای مخالفم	نه مخالف و نه موافق	تا اندازه ای موافقم	موافقم	به شدت موافقم
با اعلام یا عدم اعلام نگرش من نسبت به خرید محصولات پلاستیکی بازیافتی، من می توانم مثبت یا منفی بودن روابطم با دیگران را مدیریت کنم.	اَ)	1	2	3	4	5	6	7
نگرش من نسبت به محصولات پلاستیکی بازیافتی برای افراد نزدیک من مهم است.	ب)	1	2	3	4	5	6	7
نگرش من نسبت به خرید محصولات پلاستیکی بازیافتی، موجب پیامد در روابط من با دیگران است.	ت)	1	2	3	4	5	6	7
با خرید محصولات پلاستیکی بازیافتی من می توانم روابطم با دیگران را مدیریت کنم.	ث)	1	2	3	4	5	6	7
با توجه به نگرش من نسبت به محصولات پلاستیکی بازیافتی، من می توانم از سوء تفاهم غیر ضروری با دیگران جلوگیری کنم.	چ)	1	2	3	4	5	6	7
نگرش من نسبت به محصولات پلاستیکی بازیافتی برای دوستی در ارتباطات من مهم است.	ح)	1	2	3	4	5	6	7
تغییر نگرش من نسبت به محصولات پلاستیکی بازیافتی باعث بوجود آمدن پیامدهای روابط من با افراد نزدیک داشته باشد.	خ)	1	2	3	4	5	6	7

سوال چهارم) لطفاً موافقت و یا مخالفت خود را با هر یک از اظهارها در جمله های زیر مشخص کنید

(خواهشمند است فقط یکی از گزینه ها را در هر سطر انتخاب کنید)

		به شدت مخالفم	مخالفم	تا اندازه ای مخالفم	نه مخالف و نه موافق	تا اندازه ای موافقم	موافقم	به شدت موافقم
نگرش من نسبت به محصولات پلاستیکی بازیافتی به عنوان یک فرد، بیان بسیاری از من برای دیگران دارد.	اَ)	1	2	3	4	5	6	7

		1	2	3	4	5	6	7
ب)	بر اساس نگرش من نسبت به محصولات پلاستیکی قابل بازیافت، می توان نتیجه گرفت که من به عنوان یک فرد چگونه هستم.	1	2	3	4	5	6	7
ج)	اعلام موضع من نسبت به محصولات پلاستیکی بازیافتی، باعث ارائه تصویر بهتری از خودم می شود.	1	2	3	4	5	6	7
د)	نگرش من نسبت به محصولات پلاستیکی بازیافتی منحصر به باورها و ارزشهای عمومی است.	1	2	3	4	5	6	7
ه)	با توجه به نگرش من نسبت به محصولات پلاستیکی بازیافتی، ارزش ها و اصول زندگی خودم را بیان می کنم.	1	2	3	4	5	6	7
و)	نگرش من نسبت به محصولات پلاستیکی بازیافتی، رفتاری مطابق با ارزش های من فراهم می سازد.	1	2	3	4	5	6	7
ز)	از طریق نگرش من نسبت به محصولات پلاستیکی بازیافتی دیگران می توانند نظاره گر من واقعی باشند.	1	2	3	4	5	6	7
ح)	نگرش من نسبت به محصولات پلاستیکی بازیافتی مطابق با شمایل شخصی من است.	1	2	3	4	5	6	7

سوال پنجم) لطفاً موافقت و یا مخالفت خود را با هر یک از اظهارها در جمله های زیر مشخص کنید

(خواهشمند است فقط یکی از گزینه ها را در هر سطر انتخاب کنید)

		به شدت مخالفم	مخالفم	تا اندازه ای مخالفم	نه مخالف و نه موافق	تا اندازه ای موافقم	موافقم	به شدت موافقم
۱)	خرید محصولات سبز به جای محصولات متعارف، موجب حس یک مشارکت شخصی خوب برای چیزی بهتر خواهد شد.	1	2	3	4	5	6	7
ب)	خرید محصولات سبز به جای محصولات متعارف، به معنای کاری اخلاقی است.	1	2	3	4	5	6	7
ت)	خرید محصولات سبز به جای محصولات متعارف، باعث می شود احساس کنم فرد بهتری هستم.	1	2	3	4	5	6	7

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سوال ششم) لطفاً موافقت و یا مخالفت خود را با هر یک از اظهارها در جمله های زیر مشخص کنید

(خواهشمند است فقط یکی از گزینه ها را در هر سطر انتخاب کنید)

		به شدت موافقم	موافقم	تا اندازه ای موافقم	نه مخالف و نه موافق	تا اندازه ای مخالف	مخالفم	به شدت مخالفم
خرید محصولات سبز باعث احساس خوب در من می شود	۱)	7	6	5	4	3	2	1
من دوست دارم زمانیکه محصولات سبز برای مقوله های مورد نیازخرید در دسترس هستند.	ب)	7	6	5	4	3	2	1
برای اکثر دسته بندی های محصول، معمولاً بهترین انتخاب خرید محصولات سبز است.	ت)	7	6	5	4	3	2	1
به طور کلی، محصولات سبز محصولاتی با کیفیت پایین هستند.	ث)	7	6	5	4	3	2	1
با توجه به ارزش در مقابل هزینه، من محصولات سبز را ترجیح می دهم.	ج)	7	6	5	4	3	2	1
هنگام خرید یک محصول سبز، من همیشه احساس می کنم که من یک معامله خوب داشتم.	ح)	7	6	5	4	3	2	1

سوال هفتم) لطفاً احتمال و یا عدم احتمال اقدام خود را با هر یک از اظهارها در جمله های زیر مشخص کنید

(خواهشمند است فقط یکی از گزینه ها را در هر سطر انتخاب کنید)

		قطعاً به احتمال زیاد	به احتمال خیلی زیاد	به احتمال زیاد	نه احتمال زیاد نه احتمال کم	به احتمال کم	به احتمال خیلی کم	قطعاً به احتمال خیلی کم
چقدر احتمال دارد شما یک محصول سبز خریداری کنید؟	۱)	7	6	5	4	3	2	1
چقدر احتمال دارد خرید یک محصول سبز را در کوتاه مدت درنظر بگیرید؟	ب)	7	6	5	4	3	2	1
چقدر احتمال دارد خرید یک محصول سبز را در بلندمدت در نظر بگیرید؟	ت)	7	6	5	4	3	2	1

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پرسشنامه پایان نامه

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

ث) اگر شما به یک محصول پلاستیکی نیاز داشته باشید، چقدر احتمال دارد محصول پلاستیکی بازیابی خریداری کنید؟

سوال هشتم) لطفاً مشخص کنید:

(از هر سوال فقط یک گزینه انتخاب کنید)

ا) جنسیت:

| 1 | مرد |
| 2 | زن |

ب) سن:

1	18 – 25
2	26 – 33
3	34 – 41
4	42 – 49
5	بالای 50

ت) وضعیت تاهل:

1	مجرد
2	متاهل
3	مطلقه
....	دیگر:

ث) چند وقت یکبار محصولات پلاستیکی بازیافتی را خریداری می کنید؟

1	1 – 3 بار در ماه
2	4 – 6 بار در ماه
3	7 – 9 بار در ماه
4	10+ بار در ماه

ج) وضعیت تحصیل:

1	کارشناسی
2	کارشناسی ارشد
3	دکتری
4	دیگر:

ح) بازه درآمد:

1	کمتر از 900.000 تومان
2	بین 1.000.000 تا 2.000.000 تومان
3	بین 2.100.000 تا 4.000.000 تومان
4	بیش از 4.000.000 تومان

از زمانیکه برای پر کردن این پرسشنامه گذاشتید ممنونم☺

Appendix B: PLS Model