UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL
ESCOLA DE ADMINISTRAÇÃO
PROGRAMA DE PÓS-GRADUAÇÃO EM
ADMINISTRAÇÃO

Teresa Cochrane Bravo Andresen Barbosa

Too green to buy? The Impact of Values, Congruence and Green Values on Consumption.

Porto Alegre, 2015

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Master's Dissertation presented to the *Programa de Pós-Graduação em Administração* of the *Universidade Federal do Rio Grande do Sul*, as a compulsory requirement to obtain the degree of Masters in Administration.

Tutor: Water Meucci Nique, PhD

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Dissertação de Mestrado apresentado ao Pós-Graduação em Administração da Universidade Federal do Rio Grande do Sul, como requisito para a obtenção do grau de Mestre em Administração

Orientador: Prof. Dr. Walter Meucci Nique

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Aprovado em: ___ de _____ de 2015

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"É sempre mais fácil empurrar com a barriga e deixar o abacaxi para os netos mas enquanto o mundo continua parolando, o termometro e a água vão subindo…"
Manu Chao, in La Mentira

"It seems to be easier for us today to imagine the thoroughgoing deterioration of the earth and of nature than the breakdown of late capitalism"
Frederic Jameson, in the Seeds of Time

AGRADECIMENTOS

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LIST OF ABBREVIATIONS

OLS – Ordinary Least Squares

PVQ – Portrait Value Questionnaire

Mturk – Amazon's Mechanical Turk

MNCs – Multi National Companies

EF – Environmentally Friendly

KMO – Kaiser-Meyer-Olkin

CR – Composite Reliability

AVE – Average Variance Explained

ST – Self-Transcendence

OC – Openness to Change

SE – Self-Enhancement

C – Conservation

CFA – Confirmatory Factorial Analysis

RMR – Root Mean Square Residual

GFI – Good of Fit Index

CFI – Comparative Fit Index

NFI – Normed Fit Index

RMSEA – Root Mean Square Error of Approximation

ABSTRACT

It is alarming the pace at which the world around us is changing, and it is undeniable that the currents that bring change towards consumption are the environmental issues and worries that we have inflicted upon the world. Consumers are every day more conscious that if we consume at the rate and way of nowadays our world will not have a bright future. However, doubt remains to what extent we as consumers act upon this, and to what point we care. Everyone is different, independent of culture, upbringing or age, everyone has a distinct personality moulded by values that define everyday decisions. We can also perceive different values from brands around us, they are a tool of our communication to the world and we reflect who we are, and who we want to be, on the brands we carry. This research aimed to understand if green purchases were influenced by each individual's green values, and to what extent their own personal values and the values they perceived from a brand were relevant. This was done in the context of a surf brand, Quiksilver, because these brands have shown to be ecological and have a reputation of inspiring ecological consciousness on consumers. The model was tested by holding an empirical study with an online survey available to residents in the United States of America, and then applying factorial analysis and structural equation modelling. It was possible to show the moderation effect that green values have on purchase intention, in some value dimensions namely openness to change and self-transcendence. It was also possible to show that green purchases may occur for social distinction, as was the case with self-enhancement. This study aimed to contribute to values theory and consumer behaviour, within environmental issues, and allow for a better understanding of the future of consumer behaviour.

Keywords: Human Values ; Brand Concepts; Green Values; Surf; Environment.

RESUMO

É alarmante a velocidade à qual o mundo à nossa volta está mudando, e é impossível negar que uma das correntes que impulsiona esta mudança no consumo são as preocupações ambientais e a antecipação do estrago que se fez no mundo. Os consumidores estão todos os dias, e todos os minutos, cada vez mais conscientes que se nós continuarmos a consumir ao ritmo de hoje o futuro do nosso mundo não será feliz. Contudo, não existe certeza de como os consumidores agem sobre esta realidade, e até que ponto cada um se importa com este facto. Somos todos diferentes, independentemente da nossa cultura, da nossa criação ou da nossa idade, cada pessoa está marcada pela sua personalidade distinta formada pelos seus valores que por sua vez definem as suas decisões diárias. Conseguimos perceber valores diferentes nas marcas que nos rodeiam, elas são também uma ferramenta de comunicação para o mundo, que reflete quem cada pessoa é, e quem quer ser. Esta pesquisa procura entender se as compras verdes são influenciadas pelos seus próprios valores e os valores que percebem da marca, e até que ponto são moderadas pelos valores verdes de cada individuo. Esta pesquisa foi realizada dentro de um contexto de uma marca de surfe, Quiksilver, pois estes tipos de marcas já mostraram ser ecológicas e têm uma reputação de inspirar consciência ambiental nos consumidores. Este modelo foi testado usando um estudo empírico executado online disponível a habitantes dos Estados Unidos, seguido de uma análise fatorial e modelação de equações estruturais. Foi possível mostrar um efeito moderador dos valores verdes em intenção de compra nas dimensões de abertura à mudança e Auto transcendência. Foi possível mostrar, também, que compras verdes podem ocorrer por distinção social, como foi o caso da dimensão de auto valorização. Este estudo pretende contribuir para a teoria de valores pessoais e comportamento do consumidor, dentro do âmbito de assuntos ambientais, e espera permitir uma melhor compreensão do futuro de comportamento do consumidor.

Palavras Chave: Valores pessoais, Conceitos de marca, Valores Verdes, Surfe, Ambiente.

1 INTRODUCTION

As consumption has increased, both on an aggregate level as well as on an individual level, various entities have expressed their worries with the toll an ever-increasing consumption will have on the environment (SCHAEFER; CRANE, 2005). It is possible to identify various movements and tendencies that aim to preserve the world, and look to care for the environment (BOHLEN et al., 1993; MINTON; ROSE, 1997). For example, the American Politician, Al Gore, in 2006 first commercially presented the impact of our actions on the earth in his blockbuster documentary "An Inconvenient Truth". The documentary, in fact, alerts the population that a misuse of the planet will eventually lead to the extinction of our presence, as we know it (PROTHERO et al., 2010). Nine years later, we can see that the world is changing and caring for the environment and sustainability has become ubiquitous. We can witness examples all around us, such as "eco-friendly" packages in the supermarket, or environment friendly dishwaters to recycled paper at work (PINTO et al., 2014). Despite this change, it is not possible to observe a unified movement from the whole of the world's population to preserve the environment; people have different attitudes and motivations when considering green issues.

The academia has not run far from this tendency. Green issues broke ground on a first moment with Kassarjian (1971), who voiced concerns of waste, water and sustainability of human behaviour, and questioned whether consumers would react to stimuli of this kind. In the 70s, Kassarijan (1971) was able to show that the population would be willing to pay more for a product that would help its impact on pollution, making it clear it was a market concern then. Soon after, Kinnear et al. (1974) attempted to pinpoint the profile of the ecological consumer, and stated how important and imminent the topic was: "Whether marketers like it or not, they are increasingly being caught in an ecology/market choice controversy that is already affecting the way many goods and services are marketed" (KINNEAR et al., 1974, p. 20).

Since the introduction of the topic, research has not stopped. Prothero et al. (2010) characterized the research of the 90s mostly on the micro side of the environment – how particular products could respond to environmental concerns, "or how to green the marketing mix" (PROTHERO et al, 2010, p. 148). Nowadays,

environmental issues are recognised as "a more global, holistic macro issue" (PROTHERO et al. 2010, p. 148). Consumers have also recognized that they too should be part of this change: "Consumers' improved understanding of the effects of consumption and production on the environment forces marketers to rethink their own practices, and perhaps go as far as retooling their business philosophy"(PROTHERO et al., 2010, p. 155). Kilbourne (KILBOURNE, 1998; KILBOURNE et al., 2014) has addressed this movement, that marketing must undergo and embrace environmental issues. The author states: "There is little doubt that the transformation from industrial era marketing to sustainable green marketing will be both necessary and difficult" (KILBOURNE, 1998, p. 641). There is a forthcoming necessity that the whole of society embrace green issues: "To consider commodity discourse could be used to consider the systems within society that can be used to commodify the environment in such a way that enables the green message to be communicated to the wider public through the mechanism of the market itself". This pressing necessity has been echoed by other authors, and the by increasing amount of research in this sense (MINTON; ROSE, 1997). Furthermore, companies (e.g. Marks and Spencer) have recognized that "green dressing" is not enough, green attitudes are not about fooling the consumer so revenue increases, but a change that must happen in the world: "There is a growing recognition within industry that going green is not simply about gaining a competitive advantage as so many marketing management articles and texts in the early 1990s suggested, but moreover a necessity for the future survival of our planet" (PROTHERO et al., 2010, p. 151).

This transition can also be pinpointed to the evolution of marketing thought. In the second half of the twentieth century, marketing gained a new face of social wellbeing and was obliged to consider the bigger picture of society – how they could serve the society and become more conscious (KOTLER; LEVY, 1969). Different concepts were bought in to marketing such as social marketing, societal marketing, macromarketing, etc. (KOTLER; ZALTMAN, 1971, SCHULTZ, 2004). According to Prothero (1991), there was a tendency for companies to create welfare for society, especially as an environmental concern (PROTHERO, 1991).

Given this undeniable progress of the importance of the environment, exponentially growing concerns throughout all areas of society, and truthfully our obligation towards the earth, the environment is the focus of this research (PINTO et al., 2014; BOHLEN et al., 1993). Example should be followed by previous research

and efforts should be done to figure out and understand the present day consumer confronted with a polluted earth (PINTO et al., 2014; GRISKEVICIUS, TYBUR, 2010). It is clear that concerns towards the environment are not solely responsibility of organizations, but of individuals too, world citizens have to recognize their "individualized responsibility" (PROTHERO et al., 2010, p. 150). However, it is unclear how consumers react, some have embraced the green cause and taken to adapt their consumption habits to the present day reality, but others are not influenced by these causes, and prefer to serve other motivations. It is interesting to understand what makes consumers differ in their actions and attitudes before green options. Not everyone recognizes their joint responsibility towards the planet they live in, but what makes these people different to those who do, is not clear.

This answer may be clarified by looking in to people's values. Values are classical constructs in psychology and marketing, since they help understand choices people make, and justify their actions (SCHWARTZ, 1994). Values have become particularly useful in consumer behaviour research. Authors such as Milton Rokeach (1968, 1973) and Shalom Schwartz (1994) have explored the value theory. The former was the pioneer in value theory, proposing that values were essentially separated into two classes – instrumental and terminal. The instrumental class refers to shared beliefs people have about behaviour, and the other refers to life objectives.

Shalom Schwartz set forward to propose and classify ten universal values that would be relevant to the world at large disregarding cultures and societies, as well as carefully delineating the meaning of values (SCHWARTZ, 1994). The definition by which Schwartz guided his research was as follows: "I define values as desirable trans situational goals, verifying in importance, that serve as guiding principles in the life of a person or another social entity" (SCHWARTZ, 1994, p.21). Considering these words, Schwartz's values are important predictors of behaviour, and are also related to other important constructs in the marketing field, like motivation, involvement, preferences, attitudes, and judgement. Values all express a motivational goal, a drive that stirs people's lives and choices. These motivations are based on needs that all humans must serve namely survival in groups, biological needs and "coordinated social interaction" (SCHWARTZ, 1994, p. 21). From these motivations, Schwartz was able to name ten values, which will be the centre of his value theory – power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security. These values are dynamic and interrelated with

each other, and can be grouped into higher order value types, paired up as opposites: openness to change and conservation, and self-enhancement and self-transcendence. Between each pair, the higher order values contemplate values that have antagonistic motivations, so are not pursuable simultaneously. It is important to acknowledge that these values are universal to all cultures and countries, but each individual will have his own set of combination of values, with special attention to antagonistic values, that cannot be pursued concurrently (SCHWARTZ, 1994).

Brands can incorporate personality and values too (AAKER; BENET-MARTÍNEZ, 2001). Although the notion of brand has commonly been associated to tangible aspects, such as logo and colours (American Marketing Association[1]), and less traditionally to less palpable aspects, like Schwartz's human values, research has shown that consumers are more favourable to brand concepts that are more motivational and emotional (TORELLI et al., 2012). In fact, TORELLI et al. (2012) goes as far as saying: "This explains the increasing prevalence of abstract brand concepts imbued with human-like values, goals, and emotions through processes such as anthropomorphization (e.g. California Raisins), personification (e.g. Jolly Green Giant), and user imagery (e.g. Mountain Dew 'dudes)" (TORELLI et al., 2012, p. 92).

However, when attributing these kinds of characteristics to multi-national companies, it is difficult to maintain concepts, emotions and values that will resonate throughout different cultures around the world. This way, it is possible to base brand concepts on Schwartz's ten human values, seeing that it aids brands in overcoming cultural barriers when trying to set one unified advertising campaign globally (TORELLI et al., 2012).

In this context, values have been shown to have a relationship with certain attributes and social conscious behaviour (MCCARTHY; SHRUM, 1995). Values have been bought into the academic field to help researchers understand consumer attitude and choices (e.g. STEENKAMP et al., 2010). Therefore, this research proposes that if values can predict brand choices, then consumer green values should have a relationship with purchase intention. This relationship in previous literature is not clear, as different directions have been shown.

As green issues gain ground, the necessity of finding out how much consumers value and positively respond to environmental stimulus becomes impending (HAWS

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1 https://www.ama.org/resources/pages/dictionary.aspx?dLetter=B, accessed 27th April 2015

et al., 2014). It is clear that consumers have different attitudes regarding environmentally friendly products, which translate to different actions. Some consumers are more willing to purchase these products, whilst others are indifferent to green causes. Haws et al. (2014) hope to help answer this question by proposing a solid green scale. The authors firstly define the construct of green consumption values through the following definition "the tendency to express the value of environmental protection through ones purchases and consumption behaviours" (HAWS et al., 2014, p. 337). The GREEN scale developed by Haws et al. (2014) is able to help predict purchase behaviours when it comes to environmentally friendly products. The construct provided by the authors is important when studying environmentally friendly behaviour. Moreover, the nature of the research that Haws et al. (2014) underwent was careful enough to compare the GREEN scale to other existing scales (HAWS et al., 2014).

The importance of the environment and the growing concerns that surrounds the sustainability of our consumption patterns have lead many consumers to opt for sustainable products, as well as environmentally friendly goods (RODRIGUES et al., 2011). Previous studies have shown that consumers who have strong green values are usually motivated by their values, and their purchase decisions are dictated by environmental standards (SCHAEFER; CRANE; 2005).

Considering how important the environment is in the present day world, and how consumers are so distinct in terms of values, this research aims to further understand the motivations behind green purchases. This research aims to bring the concept of values (SCHWARTZ, 1992, 1994, 1996), the idea of brand concepts (TORELLI et al., 2014), the recently developed GREEN scale (HAWS et al., 2010) and delineate a model that will let us draw conclusions on the intent to purchase in a context of surf brands. Ultimately, this research aims to deepen the understanding of what determines purchase intention with brands that have a language and identity that is linked to sustainability and the environment.

In this research, intention to purchase will be researched in the context of surf brands. Surf is the most popular water sport in the world and is practiced by many from all corners of the globe (SEGABINAZZI, 2013). In the last century, the growth of the surfing industry has been predominately in countries such as USA and Australia, the latter has produced the world's bestselling brands – Quicksilver, Billabong and Ripcurl (BITENCOURT et al, 2006). Currently, Brazil has just named

its first world surfing Champion in 2014, Gabriel Medina, and with a team of notable surfers, this period has been named "Brazilian Storm" by the media[2]. In Brazil, the surfing industry represents R$ 2.5 billion annually, and employs more than 140 thousand people indirectly (ZUCO et al, 2002).

Furthermore, surfing has been shown to happen in communion with nature, and surfers frequently value nature and respond with a deep connection to it. The lifestyles practiced by people in this mean are described with a passion for nature, and having this link always present in their choices (SEGABINAZZI, 2012). Looking into the relationship of green values amidst brands that typically care for the environment presents a gap in knowledge that should be researched. For example, brands such as Quiksilver, have created a foundation to care for the world globally and locally: "The Quiksilver Foundation is a non-profit organization committed to benefiting and enhancing the quality of life for communities of board riders across the world by supporting environmental, educational, health and youth related projects" (Quiksilver website[3]). Lightning Bolt, another major global surf brand, describes its drive: "The brand celebrates the passion of the individual and how surfing is one of the purest ways people can connect to nature while at the same time using it as a canvas for self-expression" (Lightning Bolt)[4]. This way, surf brands present an excellent context to study consumer behaviour in the area of environmental concerns – it is possible to align both personal values and brand concepts in terms of green consciousness.

The elements that this research combines will make a contribution to consumer behaviour, highlighting the present day importance of understanding the "green" consumer amidst a deteriorating world. Ultimately, combining all the elements that have been considered – this research aims to answer the following question: **How do GREEN values moderate the relationship between personal values, brand concepts, and purchase intention?**

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[2] http://canaloff.globo.com/programas/brazilian-storm/, accessed on the 27th April 2015

[3] Quiksilver website, http://www.quiksilver.com/customer-service-corporate-information-about-us.html, accessed on the 15th of March 2015

[4] Lightning Bolt website, https://www.lightningbolt-usa.com/company/, accessed 15th March 2015

2 OBJECTIVES

This research is guided by the general question previously proposed – To analyse the moderating role of GREEN on the relationship between personal values and brand concepts, and purchase intention. It specifically hopes to serve the following objectives:

2.1.1 Overall Objective

To evaluate the relationship between personal values, brand concepts and green values, and its impact on brand purchase intentions.

2.1.2 Specific Objectives

So that this research is able to serve its main and overall purpose, the general objective has been broken down into specific objectives:

– Compare the data with Schwartz's Values distribution, to ensure theoretical alignment;

– Define a equation that will include all the value dimensions (personal, brand and green) and predict the relationship between purchase intention when considering surf brands;

– Analyse the relationship between the congruence of values (personal values and brand concepts – in general and each high order value individually) and purchase intention;

– Analyse the moderating role of GREEN values between values, brand concepts and purchase intention (when considering values in general and each high order value individually).

3 THEORY AND CONCEPT DEFINITION

The foundation of this research relies on Schwartz's value theory, and the theoretical background will initiate with this contextualization. Although personal values are innate to humans, literature shows us show these values are applicable to brands – another keystone of this research. This background also approaches the GREEN scale, and its relevance to the model later proposed.

3.1 Value Theory

Personal values are a recurring theme in sociology and psychology and have been mentioned and questioned several times by different authors. Schwartz (1992, 1994, 2005, 2006) and Rokeach (1975) are the main authors to have solidified a value theory that has been most important in marketing. Thus, the study of values in marketing can be divided into two main research lines, that of Rokeach (1968; 1973) and that of Schwartz (1992, 1994, 2005, 2006).

Schwartz (1992, 1994, 2005, 2006) put forward a theory based on values recurrently used in Marketing research (e.g. KRYSTALLIS et al., 2012). Human behaviour is hard to predict, and even harder to generalize, Durkheim and Weber had already mentioned the importance of values to explain "social and personal organization and change" (SCHWARTZ, 2012). Schwartz's objective was to map out how people guide their actions and their objectives through identifying ten distinct values that are recognizable in all cultures, and map out the dynamics between them, whether these were of congruence or conflict.

Before further explanations are given about the value theory it is of extreme importance that boundaries are drawn to what defines a value, in this case a basic value. The author defined six characteristic that helps define what a value is (SCHWARTZ, 2005, 2006). Firstly, "values are beliefs and are linked inextricably to affect" (SCHWARTZ, 2006, p. 143). This definition is useful to help us distinguish values from feelings – the use of certain values may provoke feelings in people. Secondly, "values refer to desirable goals that motivate action", values will act as compass for your actions, for example if you value justice, your actions will be fair towards others (SCHWARTZ, 2006, p. 1430. Thirdly, "values transcend specific

actions and situations" (SCHWARTZ, 2006, p. 143). It is useful not to confuse value with actions or attitudes, values refer to something grander that helps justify the actions and attitudes; this refer to the fifth definition of values too, values are ordered by importance and priority, which is not what happens in case of attitudes, or even norms. Lastly, the trade off that exists between all our values is what guides and dictates our actions (SCHWARTZ, 2006).

One this note, contrasting between what is a basic value and what is not, usual mistakes involve confusion between a given opinion about a particular issue and a value that a person holds (SCHWARTZ, 2006). In research, Schwartz (2006) alerts that it is common that people are questioned about opinions regarding a particular statement or an attitude they have. This does not have the same weight as inquiring and finding about basic value. In these circumstances people are questioned about their "trans-situational" value, where a person will take into bias socio-political conditions and the context that the situation is in. The opinion is in interaction with the basic value, but it is not being measured. Schwartz exemplified by stating that when people are asked their opinion about the current government, researchers are not measuring a basic value. In truth, the answer to opinionated questions and agree-disagree based questions may be justified by multiple values that a person holds (SCHWARTZ, 1994, 2006).

Furthermore, what is important is the interplay between values, the importance that they have relative to the others. It is not sufficient to ask for the importance of each one and then infer the relationship between them. So, it is extremely important to understand that values are dynamic between them, and present trade-offs, since some are complementary and some are antagonistic (SCHWARTZ, 2006).

Basic values transcend cultures where people are included in. The values that are pointed out by Schwartz are recognized in all cultures, and all values that are different cross-culturally, have been excluded (SCHWARTZ, 1994, 2006).

In sum Schwartz and Bilsky (1987, p. 551) proposed that values would satisfy three basic human needs – "biologically based needs of the organism, social interactional requirements for interpersonal coordination, and social institutional demands for group welfare and survival". Individuals, wherever they maybe, have to deal with these three planes of human existence, and how they deal with this will determine their values.

Schwartz has stated that the basic values can be characterized by their

motivational goal, in this sense we can identify ten motivation goals (Schwartz, 2005):

1. Self-Direction – Action and thought are free of will, do not have an imposed bias.

2. Stimulation – search for novelty and excitement.

3. Hedonism – the gratification of the own senses.

4. Achievement – Success and personal accomplishment according to what is dictated by society.

5. Power – Control of people and resources, which will render status.

6. Security – a valuation of stability and sanctuary in society.

7. Conformity – a will to maintain the status quo and prevent impulses.

8. Tradition – the idea that customs and ideas should be maintained and not changed, the respect for what is already established.

9. Benevolence – the wish to enhance welfare of others around us.

10. Universalism – understanding, respect and protection for people and nature.

The motivation aspect of the value is of crucial importance. Motivation distinguishes one value from the other, as put by Schwartz and Bilsky (1994, p. 164): "Values are cognitive representations of the important human goals or motivations about which people must communicate in order to coordinate their behaviour". In sum, each value is a representation of the underlying motivation it contains, it a representation of different requirements of the human condition (SCHWARTZ, 1992, SCHWARTZ; BILSKY, 1987, 1990). Thus, each individual will align the basic values according to her or his system of value priorities (SCHWARTZ; BILSKY, 1994).

Building on these ten values and the likely interplay between them, in terms of conflict or similarity, the authors built a figure that would summarise – logically and graphically – the overall structure existent between the values (SCHWARTZ; BILSKY; 1994). This structure was confirmed in 41 countries (SCHWARTZ, 1992). This figure is built upon two dimensions that are composed of two opposite high-order values that combine the ten basic values already shown:

- Self-enhancement (power, achievement) versus Self-Transcendence (universalism, benevolence)

- Conservation (conformity, security, tradition) versus Openness to Change

(Self-direction, stimulation)

NB: Hedonism can be related to two high-order values: openness to change and self-enhancement. This is the figure proposed by the authors:
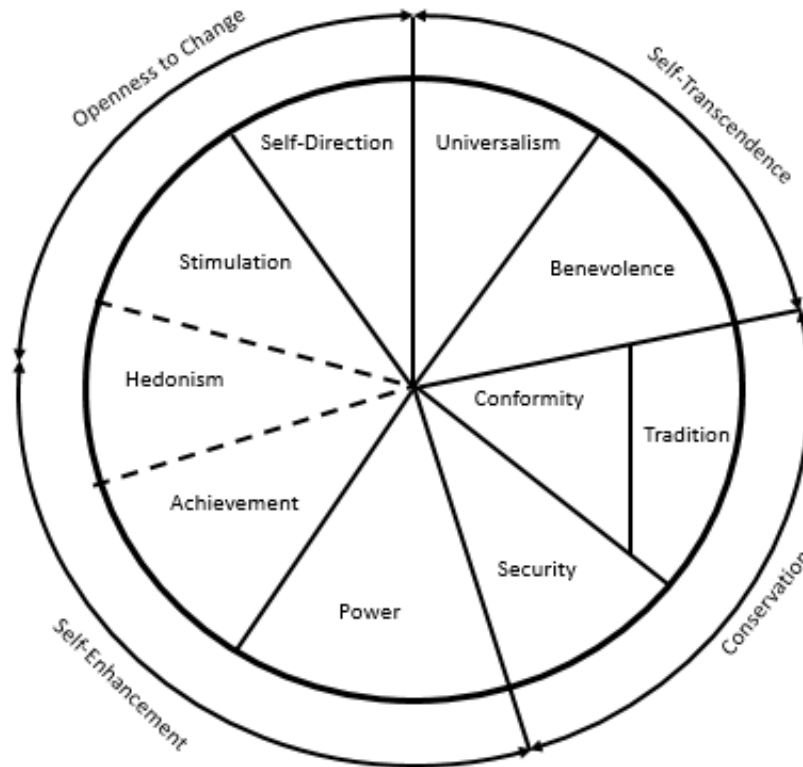
Figure 1. Figure to illustrate the relationship between the ten basic values, Source: Schwartz and Bilsky, 1994.

The two dimensions, composed by two sets of two opposing high order values, proposed by the authors are useful to organize values, and the underlying motivations behind each value. It is useful to group them in such way so it clearer that many of the values are not compatible to be pursued simultaneously.

Openness to change (self-direction and stimulation) is opposed by Conservation (conformity, tradition and security). Self-direction refers to when the individual favours his own independent thought and choices, including changes to what is custom, as opposed to what looks to preserve traditions and protect security (SCHWARTZ, 1994).

The other dimension is composed by the high order values of Self-transcendence (universalism and benevolence) and self-enhancement (achievement and power), and takes into opposition values that are concerned for the welfare of

others, and a vision that all other humans are equal, and values that are motivated by personal success, and power and influence over others. (SCHWARTZ; BILSKY; 1994).

It is easy to understand why this dimension has opposing high order values, people who pursue their personal achievement and success will probably come into conflict with helping others in need. Furthermore, those looking for novelty and new experiences will probably come into conflict with tradition, and conformity of how to lead life and make personal choices. It is once more clear why these high order values are opposing, and difficult to pursue together. On the other hand, achievement and power go hand-in-hand, those looking for personal success are quiet likely to look for enhancing their authority and influence over other people.

In sum and referring back to Figure 1, the closer the values are on the model, the closer the underlying motivation of the value. The further apart the values are, the more antagonistic the motivations behind the value. Figure 1 portrays the pattern of the relationships between the values; it is a representation of the possible conflict and congruity of the elements. The diagram represents the motivational continuum of the values (SCHWARTZ, 1994).

3.2 Values-Attitude-Behaviour Chain

Values define and guide people's opinions and they reflect their preferences, and more insightfully their socialization. Values are usually stable, people do not change so frequently of values as they do of opinions, and their life choices usually reflect their values. Behaviour is mostly justified by the arrangement of personal values, ranging from ordinary situations of day-to-day choices, to life altering choices (HOMER; KAHLE, 1988).

According to Homer and Kahle (1988, p. 638) values reflect the "most abstract of the social cognitions, they reflect the basic characteristics of adaptation", so they are the basis on which attitudes and behaviours are all elaborated and constructed. Values act as guides on how to respond to particular situations (HOMER; KAHLE; 1988). In fact, the authors expand their reasoning with the following: "Within a given situation, the influence should theoretically flow from abstract values

to midrange attitudes to specific behaviours. This sequence can be called the value →
attitude → behaviour hierarchy" (HOMER; KAHLE, 1988, p. 638).

This model proposes that values influence behaviour, both directly and indirectly:

| Values | ⇒ | Attitude | ⇒ | Behaviour |
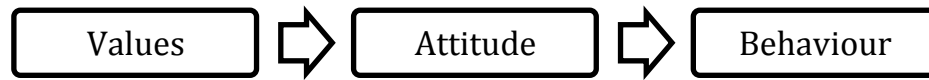
Figure 2. Values, Attitude and Behaviour Chain. Source: Homer and Kahle, 1988

Other authors, such as Nonis and Swift (1979), have echoed this point of view, "values are a powerful influence on human attitudes" (NONIS; SWIFT, 2001, p. 251). Previous research has shown this many times, that values are highly influential of behaviour, for example, cigarette smoking, cheating, etc. are largely dependent on the variety of individual values.

3.3 Brands and Values

Brand, according to the American Marketing Association, can be defined as "a name, term, sign, symbol, or design, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors". However, this definition has been a target of criticism since it focuses too strongly on visual aspects of brands, leaning on mechanical and physical attributes and disregarding emotional characteristics a brand may have (ANANA; NIQUE, 2009; de CHERNATONY, 2006, p.29). The brand iceberg has been bought up as an opposition to this definition, which tends to describe only what is visible and above water, disregarding most of the brand, which is not physically visible and therefore submerged.

Brands can be described as shortcuts in consumer's mind, when a choice between products has to be made, brands are representatives "of the set of functional and emotional associations and of trust". This means that brands act as a package of meaning for consumers, representing to different degree attributes that consumers seek. Brands are not merely a composite of their functionality, since emotional attributes also play an important part to consumers (ANANA; NIQUE, 2009). Numerous examples maybe cited to exemplify emotional seeking consumption, as stated by Anana and Nique (2009). The Jaguar can be bought not only on a functionality basis but also on the prestige it brings. The authors go on further to state

that the product may play an imaginary role in consumers' mind, embodying "a personality, a relationship, and adding value or an evolving entity". Brands have a meaning in consumers' minds (CHERNATONY; RILEY, 1997).

In an attempt to package the non-physical part of a brand, the concept of "brand personality" was proposed by Aaker (1997), the formal definition is "the set of human characteristics associated with the brand". This definition attempts to consider elements outside the "utilitarian function" of objects for consumers and tries to explore the "symbolic or self-expressive function (AAKER, 1997). This is of relevance since consumers tend to have more affinity between brands that share characteristics with their current or ideal self. Aaker (1997) identified personality dimensions that were associated to American brands. It is clear by this research that brands have meaning beyond their utilitarian function. Aaker et al. (2001), once more wished to compare their conclusions about human personality characteristics in an American context, to other cultures, namely Spanish and Japanese. In doing so, the authors make it clear once again that brands relate consumers on an emotional level.

Chernatony (2001), another keen author of brand, defended how brand was much more than simply what was visible to the naked eye, and how its personality existed: "Consistently, a considerable volume of research defines brands as symbolic devices, with personalities that users value beyond their functional utility. When choosing between competing brands, consumers assess the fit between brands' personalities and personality they wish to project" (CHERNATONY; RILEY, 2001, p. 92). Chernatony (2006) broke down brand perception, so that it would become clearer to what extent brand personality would figure in brand construction. Anana and Nique (2010) adapted this pyramid from Chernatony's work (2006) in the following diagram:
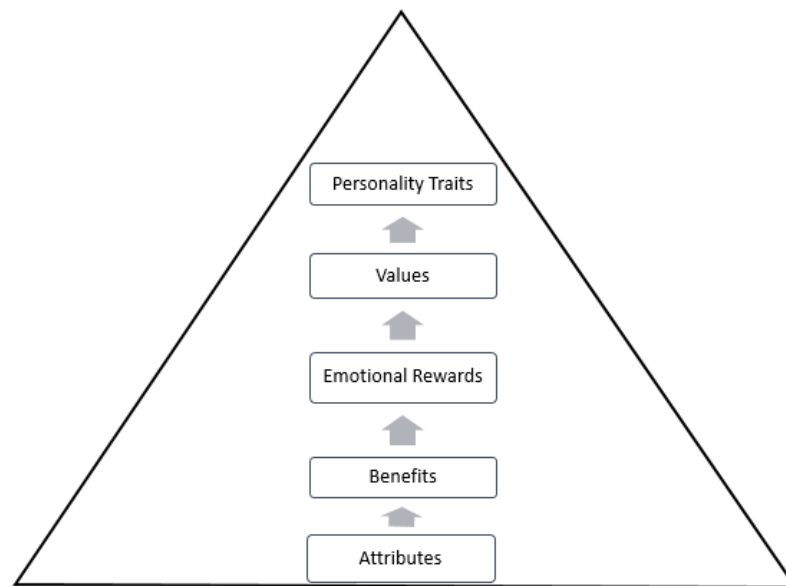
Figure 3. Source: Anana and Nique, 2010

This figure hopes to break down the essence of brand personality. Brands enter markets hoping to satisfy a niche or an existing gap, thus a brand has attributes that are exclusive to it. Consumers are concerned with the gain they will have from experiencing this brand, the Emotional Rewards. The top of the pyramid is reserved for the traits of the brands (ANANA; NIQUE, 2010). Chernatony (2006) described that brand is "a cluster of functional and emotional values" (CHERNATONY, 2006, p. 244). Brand represents attributes further to their utilities, as put by Chernatony (2006, p.244): "Brand personality also acts as symbolic or self-expressive function. People do not buy a Mercedes just because of the brand's performance, but rather because of the meanings of status and lifestyle represented by the brand". These symbols of brands occur only because brands have acquired personalities in the minds of consumers (CHERNATONY, 2006). The proposed pyramid is extremely useful when considering a brand: "The brand pyramid enables rapid appreciation of a brand's core nature through its unique attributes, benefits, emotional rewards, values, personality traits and, if the brand's team feels sufficiently confident, a personality to summarize these" (CHERNATONY, 2006, p. 249).

Brand can be subjective, and unique, the question that is important to clarify is how to identify systematically the brand's subjectivity. Torelli et al. (2012) put forward that brands could have concepts that were just the same as values used to describe people. Since values are representations of people's motivations, brands are

simply the embodiment of these values, material representations of life choices. This way marketers are able to persuade consumers to purchase, as the act of purchasing becomes meaningful in the consumers' life and not simply utilitarian (TORELLI, et al., 2012). As follows, these authors proposed to measure brand concepts entirely based on Schwartz's human values. According to Torelli et al. (2012, p. 92), brand concepts can be defined as "unique and abstract meaning that are associated with brands" that in turn, are a combination of marketing efforts, attributes and benefits. Over time, these concepts have been based on motivational and emotional meanings, in contrast to functional qualities a specific brand has. Therefore, as commented by the authors, the nature of these brand concepts is very similar to basic values in humans.

Schwartz's human values are significant because they are universal; they are present in all human beings independent of culture, upbringing, social class, religion, etc. In this context, Torelli et al. (2012) justified their choice of brand concepts with Schwartz's human values. Human values being universal, and applicable to brands, everyone would be able to understand and relate to them, in each brand. Human values applied to brands – brand concepts – are a practical tool to understand consumer behaviour across different cultures, Multinational companies have been known to use values to understand advertising responsiveness across the world.

In this research, the interpretation of brand concepts can be significant when considering purchase intention. It is clear that brands are not simply functional. People will purchase for subjective reasons, since brands possess human-like characteristics; furthermore people will have more affinity with brands that share their values: "MNCs [Multi National Companies] often localize advertising and promotion by incorporating concepts and ideas that align with local cultural value priorities" (TORELLI et al., 2012, p. 96). Thusly, brand concepts should feature in a purchase intention model, as it is clear that they articulate with personal values in deciding whether to purchase or not.

3.4 "Green" Values

There is increasing evidence that research regarding environmental concern and consumer behaviour is gaining importance, markets are expanding and this is an

opportunity for businesses (DIAMANTOPOULOSA et al., 2003). This worry can be traced back to authors such as Kassarjian (1971) to the present day. Evolution has occurred from a mind-set that environmental answers should be supplied at a micro level, such as an attempt "to green the marketing mix" (PROTHERO et al, 2010, p. 148) to having people searching for a change in lifestyle, choices that contemplate the environment (GILG et al., 2005). Not only consumers focus on green concerns, companies have also began to change packaging, create corporate initiatives for the environment, etc. Generalized care for the environment has also been increasing (HAWS et al., 2014).

Haws et al. (2014) developed a scale help predict to what extent consumers would make ecological choices in their consumption: "we demonstrate that the GREEN scale predicts consumer preference for EF [environmentally friendly] products. In doing so, we show that stronger green consumption values increase preference for EF products through more favourable evaluations of these products' non-environmental attributes, consistent with consumers' use of motivated reasoning in other decision making contexts" (HAWS et al., 2014, p. 337). The authors initially start with the pinpointing of what is green consumption, through the introduction of the construct of green consumption values: "the tendency to express the value of environmental protection through one's purchases and consumption behaviours" (HAWS et al., 2014, p. 337).

The construction of their scale was a detailed and laborious process. Haws et al. (2014) acknowledged other existing scales, and through six studies the authors develop a green scale, with six items that capture green consumption values "in a reliable, valid and parsimonious manner". In other words, the scale is able to capture if the consumer makes more environmentally friendly purchases or not.

The authors suggest that green consumption values have a direct connection with conservation: "We further suggest that green consumption values are part of a larger nomological network associated with conservation of not just environmental resources but also personal, financial and physical resources" (HAWS et al., 2014, p. 337). As previously noted, conservation was a higher order value proposed by Schwartz (Figure 1). Conservation joins three basic values – tradition, conformity and security. People who value conservation are people who "favour the status quo" (SCHWARTZ, 1994, p. 21) These values aim to emphasize order, self-restriction and discipline, there is a wish to preserve the past, and change is avoided. However, the

conservation proposed by Haws et al. (2014) aims to consider individuals who wish to conserve resources. Furthermore, there is a suggestion that consumers with green consumption values are quicker to innovate in using their resources, "we theorize that green consumers will be more likely to be innovative users of existing physical resources, that is, that they will creatively reuse and find multiple uses for their products" (HAWS et al., 2014, p. 338).

Important to note that Haws et al. (2013) in their paper that they propose the GREEN scale, they are able to relate environmental consumption concerns with conservation in general. Consumers that make these environmental choices are also consumers that are more likely to make frugal options in the day-to-day consumption – the authors relate it to conservation. Namely they focus on consumers' personal financial and physical resources. This behaviour could perhaps be related to one, or more, of Schwartz's values, such as benevolence, universalism and ultimately self-transcendence. The authors also suggest that consumers may opt for green products not because of their values, but by observing other behaviours they might have, a elaborating a conclusion from that observation: "However, future research should consider the extent to which green consumption values may also develop from behaviours that lead to the perception that one is a green consumer not because they have strong green consumption values but because they observe their engagement in environmentally friendly behaviours, consistent with self-perception theory" (HAWS et al., 2014, p. 350). This way this study aims to research how different values will impact on "green consumption", as research has shown contradicting evidence.

4 MODEL AND HYPOTHESIS

The present research aims to observe and analyse the relationship between personal values, brand concepts, GREEN values and purchase intention, it aims to observe the relationship between these constructs, namely how the first three interact between each other, and how they affect the latter. Taking into consideration the theory and previous research, a theoretical model will be proposed with a carefully explained and thought out relationship between the constructs. This model hopes to add to existing literature on values, especially GREEN values and purchase intention. Ultimately, this research hopes to contribute to marketing theory on environmental concerns, observing the relationship between behaviour and values.

Figure 3 aims to illustrate the model that this research proposes. The first square in the model below, on the left, aims to describe the congruency between personal values and brand concepts and the relationship it will have with purchase intention. GREEN values are shown to moderate this relationship with purchase intention.
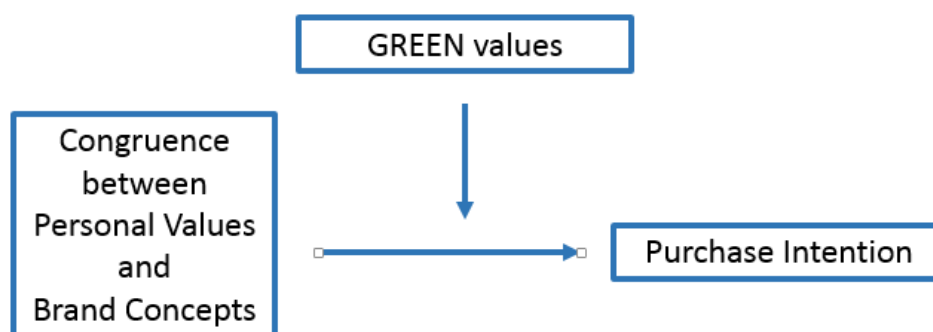
Figure 3. Diagram to show proposed model of Research. Source: Author

A moderator refers to a variable that influences the relationship between one (or several) independent variables, and the dependent variable. In this case, the relationship between brand concepts and personal values between purchase intention will change accordingly to the level of green values. Baron and Kenny (1986) define moderation: "In general terms, a moderator is a qualitative (e.g., sex, race, class) or quantitative (e.g., level of reward) variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable. Specifically within a correlational analysis framework, a moderator is a third

variable that affects the zero-order correlation between two other variables" (BARON and KENNY, 1986, p.1174). In other words, moderation occurs when a third variable changes the interaction between a dependent and independent variable: "moderation implies that the causal relation between two variables changes as a function of the moderator variable" (BARON; KENNY, 1986, p. 1174). It will not affect directly the dependent variable; they will only influence the relationship between the independent and dependent variables

In this case, the effect of the congruity of personal values and brand concepts on purchase intention will alter according to the intensity of GREEN values, where they will help understand the purchase of a green product, despite personal values. Congruity will be measured by calculating the difference between the corresponding items of personal values and brand concepts, this formula is explained further on.

This research aims to contemplate the relationship between personal values, brand concepts and purchase intention. The next sections aims to justify theoretically the previously suggested hypothesis.

4.1 Personal Values and Brand Concepts

The first hypothesis aims to describe the relationship between purchase intention and the congruity of personal values and brand concepts. Aaker (1997, p. 2) proposed this logic: "previous research has suggested that the greater the congruity between the human characteristics that consistently and distinctively describe an individuals' actual or ideal self and those that describe a brand, the greater the preference for the brand". Torelli et al. (2012, p. 105) also support this, stating that the greater the similarity between personal values and brand concepts may "lead to a greater acceptance in culturally distinct markets", meaning that congruity of values will always be beneficial for the seller.

Allen et al. (2008) have put forward a similar logic when researching about taste preferences and personal values that a similarity or match between personal values and the values portrayed by a foodstuff, will lead to a better appraisal of this food. This way they state, "In particular, a person compares the human values symbolized by a food or beverage to his or her own values and self-concept. When there is value-symbol congruency, one experiences a favourable taste and aroma;

incongruence leads to a perception of poor taste" (ALLEN et al., 2008, p.294). It is possible to make an analogy in the model here proposed, "We report and experiment showing that value-symbol congruity leads to a more favourable taste evaluation, attitude and purchase intention. Among other implications, the framework implies that the positioning of a brand (in terms of image) may influence marketing success…" (ALLEN et al., 2008, p. 295).

Sirgy (1982) is a pioneer researcher of congruity between the consumers' self-image and the image that the consumer has of the consumption good. Hohenstein et al. (2007) reiterated: "The consumer behaviour literature has increasingly shown that behavioural phenomena such as brand attitude, preference, choice, purchase and ownership, satisfaction, and loyalty, are not only determined by functional facets of the brand but also by symbolic criteria" HOHENSTEIN, et al., 2007, p.118). These authors, including Sirgy, propose that consumption will occur when there is a match between the consumers' vision of himself and the vision these hold of the brand, "Previous research found that people prefer brands with images similar to their own self-images (BRANAGHAN; HILDREBRAND , 2011, p. 304).

Research has been done in this sense, especially work done by Sirgy (1982); for example, Branaghan and Hildebrand (2011) propose to match both notions: "Brand managers have the task of developing and monitoring brand associations, the knowledge and beliefs that people connect to a brand (…) enabling consumers to make sense of brands, and remember distinguishing characteristics. The self-image serves a similar purpose for individuals, representing how a person sees him/herself" (BRANAGHAN; HILDEBRAND, 2011, p. 304). In sum, where there is self-congruity, or in other words, there is similarity between an individual's self-image and the brand image, this will influence preference, as will the personality of the brand (BRANAGHAN; HILDEBRAND, 2011; SIRGY, 1981; HOHENSTEIN et al., 2007; ROY; RABBANEE, 2015).

Thus, the following hypothesis is proposed:

H1: The greater the congruity between personal values and brand concepts, the more likely the purchase intention of the product.

Considering that the values proposed above are composed by four higher order values, the main hypothesis may be broken down into four specific hypothesis

contemplating self-transcendence, openness to change, self-enhancement and conservation:

H1a: The greater the congruity between personal values and brand concepts both regarding self-transcendence, the more likely the purchase intention of the product.

H1b: The greater the congruity between personal values and brand concepts both regarding openness to change, the more likely the purchase intention of the product.

H1c: The greater the congruity between personal values and brand concepts regarding self-enhancement, the more likely the purchase intention of the product.

H1d: The greater the congruity between personal values and brand concepts regarding conservation, the more likely the purchase intention of the product.

4.2 The role of GREEN values

The relevance of green issues is every day more critical, and consumers have embraced this idea. Businesses cannot ignore environmental issues in their strategies since consumers have incorporated in their choices environmentally conscious purchases, and on an extreme, there have been even cases of boycotting of certain companies (ANDRÉS; SALINAS, 2007). These kinds of attitudes will shape behaviour of consumers, but it is necessary to understand the motivations behind these actions when green attitudes are brought into their behaviour.

Considering previous research and Schwartz's value dimensions, it remains unclear how values influence our purchase intentions. Previous research has shown that self-transcendence values will motivate consumers to opt for products that are environmentally sustainable, since their motivations will be more socially oriented (MCCARTY; SHRUM, 1994). This attitude pointed out that ecological consumption

choice can also be motivated by self-enhancement dimensions, as shown by Griskevicius et al. (2010). Furthermore, self-enhancement is an important dimension when brand preference is contemplated in purchasing choices, green brands may be more prestigious, or not (STEENKAMPF; JONG, 2010).

As Schaefer and Crane (2005) mention in addressing the environment, consumption can have different conceptualizations, namely hedonism, identity construction and communication. Thus, opting for green products consumers may serve ulterior motives, such as the wellbeing of the society and planet in general, but they can also opt for certain products solely as a way to fit in – a type of communication.

On the other extreme, research on competitive altruism tries to understand the role of altruist behaviours – such as purchasing green products that may be more costly with the same functionality, solely for the sake of the environment (ROBERTS; HARDY, 2007). These behaviours, which have no apparent benefit for the consumer, are by nature more difficult to understand. The authors propose that altruistic behaviours may be a method of attracting attention and self-promoting, they go on to say that altruist behaviours have to be considered in "the wider context interactions take place" (ROBERTS; HARDY, 2007, p. 429). Or as Griskevicius et al. (2010) put it: "Because voluntary acts of self-sacrifice and the ability to incur costs are associated with status, the current work points to underlying reasons why nice guys— and gals—can finish first" (GRISKEVICIUS et al., p. 392).

From another perspective, research has shown that green values may be taught. A considerable amount of propaganda and informational efforts on behalf of institutions, governments and organizations try to change consumers' habits and attitudes towards the environment. These movements are based on the idea that people will change their behaviours because they will be sensitized by their impacts on the world, and they truly care for the wellbeing of the planet. Ellen et al. (1991) even suggest promoting hope amongst consumers: "…by increasing perceptions that the individual can make a difference. This, in turn, should affect his or her willingness to perform desired behaviours. This approach, however, must be two pronged, convincing the consumer of his viability in effecting change and providing information and a means to implement the action" (ELLEN et al., 1991, p. 113). In this fashion, consumers can be instructed and persuaded to have 'green' actions, even though the benefits are not for them. Green values can be communicated and are

therefore not inherent to their basic values.

Ellen (1994) showed that attitudes that contemplated the environment were strong predictors of how people would act not only in consumption but also post-consumption actions that related to the environmentally friendly products. This author also mentions source reduction. Source reduction refers to the elimination of waste before it is actually generated. This is extremely relevant for this study, because in case of the presence of green values, there might be a larger or negative effect on consumption, even though the product is green and environmentally friendly. Some consumers may actually ignore that the product cares for the environment, and may actually consider consumption as a threat to the environment, thus moderating differently the relationship to purchase intention. Goldman (1991, p. 25), explains this clearly: "the targets for green products are the same unregenerate, wasteful, convenience-addicted consumers that corporations have been selling to for decades". Thus proposing that consumers may in fact not be motivated by green purchases, since they may find consumption itself a hazard to the environment. In this sense, this research proposes that not only may green values enhance the relationship between the congruence of values and purchase intention, but may also change their direction and therefore taking on the full-fledged meaning of moderation.

All in all, consumers can vary in their level of green attitude and actions; it is unclear how people react to green causes, whether their values of self-promotion such as self-enhancement or values of self-transcendence will encourage them to purchase consciously, or if this relationship is impacted by how "green they are". This said this research aims to investigate further the role of GREEN values, when considering personal values and brand concepts. People with distinct and even antagonistic values end up making 'green' purchases, the same type of purchase, and it remains unclear if this is inherent to the person, or if they acquire a certain "greenity".

Green values, in combination with Schwartz's values may help us to understand the reasoning and motivations behind green purchases. This research suggests that GREEN values may moderate this relationship. It is important to understand that personal values in congruence with brand concepts have the main influence over behaviour. It has been shown in previous research that this is the main effect (MINTON; ROSE, 1997, p. 44): "These results support the work of Schwartz (1997) and Hopper and Nielsen (1991) by showing that the personal norm has the primary influence on environmentally friendly behaviour".

Due to the divergent nature of previous studies, the role of GREEN values gains importance in understanding the consumers, in previous studies it has been shown that GREEN values may be high, there is consumption of "green products", GREEN values may be low, and there still is a tendency to consume "green products", through self-transcendence values (GRISKEVICIUS; TYBUR, 2010). It has been seen in previous literature that the purchase of green products may occur in either situation, whether GREEN values are existent or not, the justification for this, as this research aims to show, is that personal values that motivate these purchases, namely self-transcendence and self-enhancement. This way this research proposes the following hypothesis:

H2: Green values serve as moderator between the congruence of personal values and brand concepts, and purchase intention.

Conserving that values regarding personal values and brand concepts are composed by four higher order values, the main hypothesis can be broken down into four more specific hypothesis, contemplating self-transcendence, openness to change, self-enhancement and conservation. This analysis may allow for a better understanding of purchase intention, since values include different constructs within the concept. Therefore,

H2a: Green values serve as moderator between the congruence of personal values and brand concepts, regarding self-transcendence, and purchase intention.

H2b: Green values serve as moderator between the congruence of personal values and brand concepts, regarding openness to change, and purchase intention.

H2c: Green values serve as moderator between the congruence of personal values and brand concepts, regarding self-enhancement, and purchase intention.

H2d: Green values serve as moderator between the congruence of personal values and brand concepts, regarding conservation, and purchase intention.

5 METHOD

Completed the theoretical background of the constructs that will guide this research, this chapter aims to describe the procedure that will be carried out in order to satisfy the main objectives.

Taking into consideration that this research aims to study personal values, brand concepts, GREEN values and purchase intention, this research has a conclusive nature. According to Malhotra and Birks (2007), conclusive research means it is more decisive and formal than its alternative, the exploratory research. It depends on larger sets of data so that a quantitative analysis may be carried out, and certain managerial conclusions may be deduced. Conclusive research may be either descriptive or casual, descriptive aims to describe certain characteristics of groups of interest, estimate a certain behaviour or determine the association of certain marketing variables (MALHOTRA; BIRKS, 2007).

This research employed a survey, using the scales that have already been explored and validated by previously addressed authors. The survey was used to obtain quantitative primary data in descriptive research (MALHOTRA; BIRKS, 2007). The survey was standardised that allows comparability of the data and ease data processing (MALHOTRA; BIRKS, 2007). To interpret this data, this research employed the statistical method of structural equations. This method enables relationship analysis between certain independent variables and constructs and its impact on a dependent variable. This way, it is possible to analyse the relationship between personal values, brand concepts, GREEN values and purchase intention – as proposed by the objectives.

The questionnaire design relies on scales that have already been revised in literature, namely Schwartz's shortened Portrait Values Questionnaire (PVQ) (SCHWARTZ, 1992) with 21 items and GREEN values scales (Haws et al., 2014). Brand concepts was measured using the same PVQ questionnaire, but applied to a

specific brand, in order for the consumer to assume personal traits to brands. Purchase intention will be measure in a Likert scale, as done by Netemeyer et al. (2004).

The size of the sample will be adjusted to Hair et al.'s (2010) suggestion that the number of respondents should be 5 to 10 times superior to the number of variables that are being studied. In this case, this research has fifty variables (excluding demographic ones) this way a minimum of 250 valid surveys should be analysed. It is also important to make room for outliers or invalid surveys.

This research used the electronic online survey, using Amazon's Mechanical Turk Platform (MTurk). This service is a kind of online lab, where people register so they are entitled to answer research questionnaires and have monetary compensation (each survey will be paid in the value of USD 0.20). This tool has been previously used in research. MTurk will be used to collect respondents, and Qualtrics will be used to operationalise the survey. When using an electronic platform such as this one, we are using a global context where anyone who wishes can sign up, thus statistically we can deduce that anyone from the population has the same chance of being chosen, creating a random sample (PAOLACCI et al., 2010). To avoid having respondent bias regarding their country of residency, a restriction was included that the respondent should be a resident in the USA, this way guaranteeing a random sample for this country, allowing for statistical deduction. Qualtrics is an online survey tool used in research. It is more useful than Mturk because it has more tools for editing and result processing.

The data collection will have two distinct and important stages, the pre-test and the final collection. The pre-test helps understand survey bias and questions of difficulty in comprehension, thus avoids these errors in the main study. In this research, the survey aims to be pretested to a sample, applied through convenience (MALHOTRA; BIRKS, 2007). The final data collection was done through the same medium and method as the pre-test.

Literature suggests several steps should be taken when using constructs and research, and special attention should be given to construct validity and reliability. Churchill (1979) suggests certain steps should be taken, and considering this notion, the current research will have the follow structure:

Churchill's Procedure	Present Research's Structure	Specific Items	Corresponding Chapter
Specify domain of construct	Theoretically Introduction of Concepts and Model	Theoretical Introduction	3&4
Generate sample of items	Apply Pre-test	Data Collection (n=100)	6
Collect Data			6
Purify measure	Purify the data base of the pre-test sample	Missing values, Outliers and Normality assessment	6.1
	Adequacy of the pre-test sample	KMO and Sphericity test (if the variables are correlated, and if the sample allows for factorial analysis)	5.4
	Convergent Validity of the pre-test sample	Anti-image Matrix and Confirmatory Factorial Analysis (to explore the relationship between factors, and if they represent a single concept).	5.4
	Reliability	Cronbach's Alpha, Composite Reliability, Average Variance Extracted (AVE)	5.4
Collect Data	Collect final data	Final Data Collection	6
Assess Reliability	Assess Reliability	Adequacy of sample; Reliability	6
Assess Validity	Assess Validity	Validity	6
Develop norm	Create model and regression	Model Confirmation; Conclusion	7

Table 1. Table to show research's structure when compared to literature.

5.1 *Measures*

5.1.1 Personal Values

There are many scales that have been used repeatedly in consumer behaviour to describe personal values bought by authors like Rokeach (1968, 1973), Kahle (1983) and Schwartz (1992). This research aims to understand consumers' behaviour from a motivational angle, this way Schwartz's scale will be used, since the author also based his constructs on motivational aspects, which are basis for decisions regarding people's lives.

Schwartz Value Survey was the innovation in value measurement in the last decades. It is considered a reliable source to measure values since it has a significant psychometric quality and it has been used extensively in cross-cultural studies. However, the downside is it is a considerably long survey, which includes over 60 elements (SCHWARTZ, 1987). To contradict this difficulty, stemmed two alternative versions of the survey: the complete Portrait Values Questionnaire (PVQ) with 40 items, and the shortened version with 21 items. These surveys aim to measure the level of association of the respondent to the ten universal values proposed by Schwartz: Self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence and universalism.

The third person perspective is adopted so that people are not influenced by peer pressure (MALHOTRA; BIRKS, 2007). It is important to measure all values, even though this research's hypothesis consider mainly self-transcendence and self-enhancement, since all values show a strong correlation between each other, having antagonistic or complimentary behaviour. The questionnaire is featured in Annex 1.

5.1.2 Brand Concepts

As previously described, brand concepts is the application of personal values to brands, in this sense brands appropriate themselves of human-like characteristics from the perspective of the consumer (TORELLI et al., 2012). Brand concepts follow the same reasoning behind Schwartz's personal values, for example, that brand concepts will not be able to pursue opposing motivational values, such as self-enhancement and self-transcendence. In this research, measurement of brand concepts will be done as was by Torelli et al. (2012) when the authors first introduced the

notion of brand concepts. In their study, respondents were asked "to think about the brand as if it 'were a person' who embodies certain values" (TORELLI et al., 2012, p. 98). However, in Torelli et al. (2012) research, respondents answered the full PVQ questionnaire, this study, however, aims to apply the simplified 21-item PVQ questionnaire, due to the number of questions that are already being asked. This survey has been attached in Annex 1.

5.1.3 Green Values

Haws et al. (2014) carefully elaborated a GREEN scale that would help measure green consumption values, defined by "the tendency to express the value of environmental protection through one's purchases and consumption behaviour" (HAWS et al., 2014, p. 336). The authors carefully elaborated a construct, with six items, that will help capture an individual's green consumption values. The authors predicted that this scale would help other research that aims to consumer responsiveness to environmentally based marketing actions, and would of great use both to researchers and to marketers. This research will use this scale to measure green consumption values of individuals. The six-items are answered on a 5-point Likert scale, where the respondent states how much he agrees, or not, with the statement. The items are attached (Annex 1).

5.1.4 Purchase Intention

Purchase intention is a recurring area of research given in Marketing given its relevance for understanding the consumer, and what will motivate him to purchase of not (FISHBEIN; AJZEN, 1975). Purchase intention will denote how much a consumer is willing to buy a good; if this intention is high, the willingness to purchase is also high, and vice versa. In this research consumer purchase intention will be measured on a five-point Likert scale, and will the same as used by Netermeyer et al. (2004).

This research will follow the survey questions for purchase intention as was done by Netemeyer et al. (2004) where two questions were asked regarding purchase intention and a specific brand. The questions are as follows on 5-point scale, ranging from unlikely to likely, the questions are annexed on Annex 1.

Overall, the following table summarizes the scales being used:

Theoretical Dimensions	Description	Operationalization
Schwartz's Value Dimensions	Schwartz's PVQ with 21 items, aiming to pinpoint each respondent's position for the 10 basic values. Applied in 3rd person.	5-point Likert type scale. (Ranging from 1 = totally disagree, and 5 = totally agree.)
Brand Concepts	Schwartz's PVQ with 21 items adapted to Brand Concepts. These questions should be answered in relationship to an object with a surf brand, so the values can analysed for this brand (TORELLI et al., 2012).	5-point Likert type scale. (Ranging from 1 = totally disagree, and 5 = totally agree.)
GREEN values	Validated set of questions that aim to understand the respondents green values (HAWS et al, 2010).	5-point Likert type scale. (Ranging from 1 = totally disagree, and 5 = totally agree.)
Purchase Intention	Set of question used in previous research and published papers, aimed to measure purchase intention Netermeyer et al. (2004).	5-point Likert type scale. (Ranging from 1 = totally disagree, and 5 = totally agree.)

Table 2. Summary of variables for use in the survey.

5.2 Brand and Surf Context

The survey, focusing on brands, will emphasis on the surfing industry for two mains reasons. Firstly, as pointed out by Segabinazzi (2011) items belonging to surf brands are not consumed by surfers themselves. Surf brand products are mainly purchased by sympathizers with the surfing lifestyle: "The consumption of clothes and fashion accessories are not products that are searched for consumption in their [surfers'] daily lives" (SEGABINAZZI, 2011, p.87, author's translation). Aspiring the surfing lifestyle and life vision, sympathizers aim to come closer by purchasing day-to-day fashion accessories belonging to these brands: "The sympathizer (...) looks to associate him/herself to the surfing lifestyle and to the surfing tribe, recreating through the brands as an ideal, through their clothes and through their fashion

accessories, such as watches, caps and eyewear. Through this point of view, the current research has shown that, different to the surfer, possessions have a considerable role in the identity formation of the surfer" (SEGABINAZZI, 2011, p. 87, own translation). This way, surf brands are not exclusively in the domain of surfers, and are actually consumed in large part by those who do not necessarily surf.

Secondly, the surfing industry poses an ideal scenario to question people about their values considering what it will motivate them to purchase environmentally friendly products. Surf has many times been associated with a communion with nature, and a wish to preserve the environment. As Segabinazzi (2011) pointed out: "This 'surf ideal' has been mainly related with a return to nature, with the preservation of the environment and with a healthier lifestyle" (SEGABINAZZI, 2011, p. 14, author's translation). Furthermore, Segabinazzi (2011) goes on saying: "the surfer is part of a tribe (…) that relates itself and identifies itself through a lifestyle and values that are based, as will be shown, on the love of the sport, the strong relationship with nature, and in a healthy lifestyle…" (SEGABINAZZI, 2011, p.55, author's translation).

Brands such as Quiksilver – a leading surfing retailer, echo these values in their websites and messages, for example their visions states: "Quiksilver has the vision of making a difference to community and environment through the Quiksilver Foundation. The Quiksilver Foundation has a commitment to improving the quality of all our lives.[5]" Kelly Slater, many times over world surfing champion has recently created his own brand, where the brands all designers to: "The name Outerknown references the furthest reaches of our knowledge today. As designers, it challenges us to build better, more sustainable products[6]". This way, the surfing industry always preserve and creates a bridge with the wellbeing of the environment.

This research has opted to focus on the brand Quiksilver, created in 1969 in Australia. Currently, it is one of the largest manufacturers of surf-related items, such as surf wear, garments and surfboards. Quiksilver is present in all continents, and is well known by the public at large. It is present on the stock exchange, and commonly associated to the surfing lifestyle (SEGABINAZZI, 2014). Overall Quiksilver is a strong brand in the industry with a strong identity. Its values resonate those that care for the environment and thus presents an ideal brand to be used in this research.

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5 http://www.quiksilver.com/customer-service-corporate-information-about-us.html, accessed May 2015
6 http://outerknown.com/, accessed May 2015

6 RESULTS

Two studies were executed, the pre-test and the main study. The pre-test was collected and its data analysed to understand if the survey was accurate, an exploratory and factorial analysis were also held at this stage. The final collection had the same data treatment (exploratory and factorial analysis), and then structural equations were executed on this final database.

6.1 Pre-Test Data Purification

6.1.1 Missing Values

It is important to identify missing data and remove them from the sample. Although some questions were compulsory on the survey, the respondents left several questions blank. Once answers left blank were eliminated the pre-test was left with n=100, an adequate number to pre-test. Hair et al. (2010) suggest that missing values do not exceed 5% of the sample survey, so that these do not question the validity of the sample size. Initial sample included 101 answers, and one survey was eliminated, leaving the percentage at 0.99%.

6.1.2 Outliers and Normality

Outliers refer to "unique combinations of characteristic identifiable as distinctly different from the other observations" (HAIR ET AL., 1998, p. 64). Outliers can be problematic since they may not be representative of the population, causing only a distortion of the data. It is very important that previously to data processing it be analysed for outliers.

Outliers can be present in data for several reasons, such as procedural error, extraordinary events or unique observations due to a specific event. Extraordinary observations that have no explanation, and finally, the last class of outliers is described by "observations that fall within the ordinary range of values on each of the variables but are unique in their combination of values across variables" (HAIR ET AL., 1998, p. 64). This last category of outliers should be kept.

The outliers were identified through several stages. Initially visual outliers were identified through the two control questions that were placed in the survey. From the first control question, eight items were eliminated, and from the second

control question, two surveys were eliminated. At this stage, the pre-test sample was n=90.

The next stages for identifying outliers was done using the steps suggested by Hair et al. (2010). Using SPSS the data was converted into standard values, with mean 0 and standard deviation of 1, this way comparison between variables is simplified. According to Hair et al. (2010) if the sample is above n=80, any value above ±4 should be considered an outlier. From observation of the z-values no observation was found to be an outlier. An observation was identified with a z-value of -3.5, however, this value was not large enough to exclude it.

The final step to analyse outliers is the Mahalanobis (D^2) value. This value analyses each observation when compared to the median value of all observations as one set of data. The D^2 value is then divided by the degrees of freedom (df), as suggested by Hair et al. (2010), the author suggests that the value of reference should be 3.5 or 4.0 for a significance level of $p<0.001$ or $p<0.0005$, respectively. These values varied from 0.312175 to 1.564981, thus none of the values exceeded the benchmark, consequently none of them classified as outliers.

The initial test for normality was done visually. Distribution of results for each variable was inspected visually with help from SPSS. Histograms with the normal distribution curve were executed. No variable was visually distorted from the normal distribution. Once these observations were completed, skewness and kurtosis z-values were calculated and compared to the critical value. When the number is larger than the specific critical value, then the distribution does not complete the normality prerequisite (HAIR et al., 2010). More specifically in social sciences and business research, "The most commonly used critical values are ± 2.58 (.01 significance level) and ± 1.96, which corresponds to a .05 significance error level" (HAIR et al., 2010, p.72). None of the values exceeded the critical values, contemplating both 5% and 1% significance level, thus indicating normality in the sample. From the results, all variables had a z value that did not indicate skewness or kurtosis.

The last test for normality is the Kolmogorov-Smirnov test. When the test value is p value > 0.05, then the sample is not significantly different from a normal distribution, in case p value < 0.05 then the distribution is significantly different from a normal distribution, thus normality is not present in the sample. All values were below 0.05, and therefore no values showed Normality, for 5% significance based on the current sample. However, Tabachnick and Fidell (2007), as well as Miller (2000)

have disregarded this condition for structural equation modelling, so research was continued.

6.2 Descriptive Statistics of the Pre-test Sample

Analysing the data descriptively, the sample had 38 male elements (42,2%) and 52 female elements (57,8%). The maximum age of the sample was 65 and the minimum was 19, the mean was held at 35.90. To avoid bias, to answer the survey respondents had to be residents in the United States. This did not mean that the respondents had North American nationality: 1 respondent was Australian, 1 respondent was Ukrainian and 88 respondents were North American. The point was to hold a research that was restricted to the USA, this way randomly assuring a representative sample.

Referring to annual income, the modal class for annual income was the range of 30,000 USD to 44,999 USD. The average class annual income was also 30,000 USD to 44,999 USD, the 45,000 USD to 59,000 USD had only 11.1 % of the sample.

In relationship to completed studies, the modal class is university degree (43.3%), and the mean class is High School. From the sample one respondent (1.10%) had incomplete high school level, and one respondent (1.10%) had completed PhD degree. 35 (38.90%) had completed high school, 39 completed their University degree (43.30%), and 14 had completed Master degree (15.60%).

6.3 Descriptive Statistical Analysis of the Pre-test Constructs

6.3.1 Values

The following tables aims to describe how the sample answered Schwartz's Portrait Values Questionnaires. The numbers following each value correspond to the item of the construct. Each construct has two items, with the exception of Universalism that has three. It is possible to highlight some items that have especially high averages (above 4), for example, Universalism, Self-direction and benevolence.

Construct		N	Mean	Standard Deviation	Minimum	Maximum
Self Transcendence	Benevolence (Q12)	90	4.02	0.971	1	5
	Benevolence (Q18)	90	4.10	0.862	2	5
	Universalism (Q3)	90	4.29	0.927	1	5
	Universalism (Q8)	90	3.90	1.071	1	5
	Universalism (Q19)	90	3.98	1.038	1	5
Openness to Change	Self-Direction (Q1)	90	3.84	1.005	1	5
	Self-Direction (Q11)	90	4.09	0.870	2	5
	Stimulation (Q6)	90	3.43	1.112	1	5
	Stimulation (Q15)	90	3.03	1.222	1	5
	Hedonism (Q10)	90	3.29	1.063	1	5
	Hedonism (Q21)	90	3.44	0.949	1	5
Self Enhancement	Achievement (Q4)	90	3.30	1.136	1	5
	Achievement (Q13)	90	2.89	1.240	1	5
	Power (Q2)	90	2.79	1.176	1	5
	Power (Q17)	90	2.46	0.985	1	5
Conservation	Security (Q5)	90	3.78	1.047	1	5
	Security (Q14)	90	3.58	1.227	1	5
	Conformity (Q7)	90	2.93	1.178	1	5
	Conformity (Q16)	90	3.27	1.068	1	5
	Tradition (Q9)	90	3.03	1.136	1	5
	Tradition (Q20)	90	2.66	1.447	1	5

Table 3. Table to show descriptive Statistics of the constructs. Source: Survey Data

6.3.2 Brand Concepts

The same method was applied to Brand Concepts as to Personal Values; the number beside each value corresponds to the items that make up each value. Here the averages are closer to the midpoint, 3, and it is possible to highlight some low averages, below 3, for example Conformity, Tradition and Universalism. When comparing these values to what Quicksilver stands for and aims to represent, it is easy to understand that conformity is not a value that they identify with, they are head forward and open-minded, this way the brand tends more towards the high order value of openness to change, rather than conservation.

All items had values across the Likert scale, from 1 to 5.

Construct		N	Mean	Standard Deviation	Min	Max
Self Transcendence	BRAND Benevolence (Q12)	90	3.02	1.227	1	5
	BRAND Benevolence (Q18)	90	3.03	1.240	1	5
	BRAND Universalism (Q3)	90	3.07	1.058	1	5
	BRAND Universalism (Q8)	90	3.13	1.247	1	5
	BRAND Universalism (Q19)	90	2.97	1.336	1	5
Openness to Change	BRAND Self-Direction (Q1)	90	3.01	1.320	1	5
	BRAND Self-Direction (Q11)	90	3.07	1.405	1	5
	BRAND Stimulation (Q6)	90	3.16	1.306	1	5
	BRAND Stimulation (Q15)	90	3.10	1.382	1	5
	BRAND Hedonism (Q10)	90	3.08	1.424	1	5
	BRAND Hedonism (Q21)	90	3.08	1.392	1	5
Self Enhancement	BRAND Achievement (Q4)	90	3.22	1.305	1	5
	BRAND Achievement (Q13)	90	3.14	1.345	1	5
	BRAND Power (Q2)	90	3.26	1.097	1	5
	BRAND Power (Q17)	90	3.03	1.116	1	5
Conservation	BRAND Security (Q5)	90	2.97	1.086	1	5
	BRAND Security (Q14)	90	2.97	1.203	1	5
	BRAND Conformity (Q7)	90	2.82	1.097	1	5
	BRAND Conformity (Q16)	90	3.17	1.220	1	5
	BRAND Tradition (Q9)	90	2.97	1.116	1	5
	BRAND Tradition (Q20)	90	2.92	1.351	1	5

Table 4. Table to show descriptive Statistics of the constructs. Source: Survey Data

6.3.3 GREEN Values

From the following table we can observe that the mean for each of the items of the construct have medium-high values. The standard deviation for each item is considerably low. We can interpret from these values that there is a tendency for larger GREEN values in the sample.

	N	Mean	Standard Deviation	Minimum	Maximum
Green (1)	90	3.86	1.087	1	5
Green (2)	90	3.47	1.201	1	5
Green (3)	90	3.37	1.203	1	5
Green (4)	90	3.94	1.135	1	5
Green (5)	90	3.52	1.144	1	5
Green (6)	90	3.40	1.252	1	5

Table 5. Table to show descriptive Statistics of the constructs. Source: Survey Data

6.3.4 Purchase Intention

The average for purchase intention is significantly low, as well as standard deviation for each item. Considering that, GREEN values were relatively high and purchase intention is relatively low (above the midpoint, 3, and below the midpoint respectively), might be an alarm or indicator of the relationships of the model.

	N	Mean	Standard Deviation	Minimum	Maximum
Purchase Intention (1)	90	2.57	1.028	1	5
Purchase Intention (2)	90	2.50	0.997	1	5

Table 6. Table to show descriptive Statistics of the constructs. Source: Survey Data

6.4 *Pre-test Measurement Model Analysis*

It is important to understand whether the sample meets some key assumptions. Hair et al. (2010) describes that there is an assumption that "an underlying structure does exist" (HAIR et al., 2010, p. 103). To test whether these key assumption were met various tests were carried out. Initially, the Kaiser-Meyer-Olkin (KMO) index and Bartlett's Sphericity test were executed, as well as the anti-image correlation matrix to understand the adequacy of the data. This was done to the three independent variables: values, brand concepts, GREEN values. Purchase intention presented several problems on computing in AMOS since it was a two-item construct (presenting negative degrees of freedom), so for this pre-testing stage it was treated a single item.

Once their validity was obtained, a confirmatory factorial analysis was held for each of the independent variables, and the dependent variable on AMOS software. It was important to understand the relationship between each of the items in each block, as well as to compare the items to the theory that was proposed. This process also gave way to the last stage of data collection, and ensured it was done the most adequately (LADEIRA, 2011). In a last stage of the pre-test, the validity was analysed through Cronbach's Alpha and other reliability measures.

1. **Personal Values**

The Kaiser-Meyer-Olkin and Bartlett tests are important to understand sampling adequacy. They were executed using SPSS, and varimax rotation. The Kaiser-Meyer-Olkin Test, or KMO test, ranges from 0 to 1 and has an accepted value of 0.6 or larger. According to Hair (2010) Bartlett's test is used to understand whether there is correlation among the variables, it helps the researcher understand "the statistical significance that the correlation matrix has significant correlations among at least some of the variables" (HAIR et al., 2010, p 104). For an adequate factor analysis, this value should be below 0.05.

The anti-image matrix is the negative value of the partial correlation between pairs of variables; this value should be larger than 0.7, since lower values may indicate that the matrix is not worthy of a factorial analysis. (HAIR et al., 2010). The communality matrix refers to the "total amount of variance an original variable shares with all other variables included in the analysis" (HAIR et al, 2010, p. 91). When this value is below 0.5 then it should not be considered.

The analysis was initially done without restricting the number of factors, to see the natural distribution of the data in terms of factors. The KMO value was 0.701, and acceptable value and above the threshold of 0.600. The value of significance was 0.00, below the 0.05 as indicated by the literature (HAIR et al., 2010).

The anti-image values were all above 0.5, the threshold value. However, communality values were not all above 0.5, namely self-direction (Q1), and in general, values were not well above the limit of 0.50.

From the SPSS output it is possible to observe that the data naturally tends to five different dimensions, not ten like originally proposed by the theory of ten distinct values. It is important to observe that by this justification it may be more pertinent to treat the data in four factors, namely Schwartz's high order values, instead of the ten basic values. The last factor has a relatively lower eigenvalue and explains only 5,815% of the data. The latent root criterion of retaining factors suggests that factors with Eigen values below 1.0 should not be retained (HAIR et al., 2010, p. 133). The eigenvalue represents the amount of variance accounted for by a factor (HAIR et al., 2010).

Furthermore, from this restriction-free output it is possible to identify that there is not a clear pattern as should be theoretically. It is mandatory that some items be removed. From table 7, it is possible to observe that Tradition (Q20) is placed in a factor that is not theoretically correct; it should not be together with the values of

Openness to Change, especially considering it is an antagonistic value. Furthermore, values belonging to conversation are divided between two factors, with self-direction (Q11) placed amongst these.

	Factors					Anti-image	Communality
	1	**2**	**3**	**4**	**5**		
Benevolence (Q12)	.818					.760	.733
Universalism (Q8)	.765					.704	.605
Universalism (Q3)	.762					.633	.620
Universalism (Q19)	.691					.806	.670
Benevolence (Q18)	.685					.699	.574
Stimulation (Q6)		.784				.670	.667
Hedonism (Q21)		.765				.791	.700
Hedonism (Q10)		.712				.709	.602
Stimulation (Q15)		.629				.706	.568
Tradition (Q20)		-.460		.444		.569	.579
Self-Direction (Q1)		.436				.597	.487
Achievement (Q13)			.792			.789	.719
Power (Q2)			.774			.662	.657
Achievement (Q4)			.721			.765	.628
Power (Q17)			.674			.858	.585
Conformity (Q16)				.821		.683	.696
Conformity (Q7)				.814		.775	.707
Tradition (Q9)				.638		.657	.687
Self-Direction (Q11)					.709	.715	.618
Security (Q5)					.672	.559	.630
Security (Q14)				.528	.587	.563	.708
Eigen-value	4.166	3.861	2.619	1.571	1.221		
Total Explained Variance (%)	19.839	18.384	12.474	7.479	5.815		

Table 7. Table to show original rotation and associated statistics for personal values.

Source: Survey Data

*Loadings less than 0.40 are not shown and variables are sorted by the highest loading.

NB: Pink represents the higher order value self-transcendence, blue openness to change (including hedonism), green self-enhancement and purple conformity. These colours were allocated for visual aid purposes

Removing these questions that are not aligned theoretically (namely Q11 and Q20), and asking SPSS to restrain to 4 factors, corresponding to the 4 high order values, the following results were obtained (Table 8). HAIR et al. (2010) points out

how important this factor analysis may be when aligning data with a theoretical background: "if we have a conceptual basis for understanding the relationships between variables, then the dimensions may actually have a meaning for what they collectively represent" (HAIR et al., 2010, p. 93).

		Factors			
		1	**2**	**3**	**4**
Self-Transcendence	Benevolence (Q12)	.775			
	Benevolence (Q18)	.745			
	Universalism (Q8)	.744			
	Universalism (Q19)	.722			
	Universalism (Q3)	.706			
Openness to Change	Hedonism (Q21)		.766		
	Stimulation (Q6)		.762		
	Hedonism (Q10)		.729		
	Stimulation (Q15)		.726		
	Self-Direction (Q1)		.426		
Conversation	Conformity (Q16)			.832	
	Conformity (Q7)			.825	
	Security (Q14)			.645	
	Tradition (Q9)			.576	
	Security (Q5)			.514	
Self-Enhancement	Power (Q2)				.788
	Achievement (Q13)				.754
	Power (Q17)				.707
	Achievement (Q4)				.644

Table 8. Table to show Rotative Matrix for 4 factors for Personal Values. Source: Survey Data

*Loadings less than 0.40 are not shown and variables are sorted by the highest loading.

NB: Pink represents the higher order value self-transcendence, blue openness to change (including hedonism), green self-enhancement and purple conservation. These colours were allocated for visual aid purposes.

Self-direction (Q1) remains with a low factor loading, but it is important that this value is not totally disregarded yet, since this would imply removing the value self-direction totally.

Reliability

In order to ensure that the data does not have responses that "are too varied across time periods" we evaluated the reliability of the constructs (HAIR et al., 2010, p.124). The measure aims to evaluate whether the scales of a specific construct are measuring the same construct, consistently (FIELDS, 2009). "A measure is reliable to the extent that independent but comparable measures of the same trait or construct of a given object agree. Reliability depends on how much of the variation in scores in attributable to random or chance errors" (CHURCHILL, 1979, p. 65).

Reliability can be described as the consistency of the measures for a specific variable, in other words, how independent measures accurately reflect the same construct. It is extremely important for research to be sure that we are not measuring other constructs (CHURCHILL, 1999). The most common measure is Cronbach's Alpha, a measure including the mean correlation between indicators. However, it is important to note that the number of measures in each construct will influence its alpha, so naturally constructs with a lower number of variables will have lower Alphas (NETO, 2005).

Hair et al. (2010) suggest that the threshold for acceptable Alpha Cronbach's value is 0.70. The formula for this value is:

$$\alpha = \frac{N^2 \overline{Cov}}{\sum s_{item}^2 + \sum Cov_{item}}$$

(FIELD, 2009, p. 674)

Composite Reliability (CR) refers to the total variance of each score when compared to the variance of the total score. Values above 0.50 are considered acceptable values. Analysis will be done for four dimensions, or constructs, as statistical information up to now has shown that this is how this research should be shaped. The following formula shows how to calculate the value for composite reliability; this formula involves directly the loadings for each latent variable and their errors, values that are extracted from AMOS Software.

$$Composite\ Reliability = \frac{(\sum loadings)^2}{(\sum loadings)^2 + \sum errors}$$

(TABACHNICK and FIDELL, 2007, p. 728)

Average Variance Extracted (AVE) is used to understand how the items explain the construct, in other words, how much of the total variance of each item is used to explain the construct. This formula also includes the loadings extracted for Amos, and the number of items in the construct.

$$AVE = \frac{\sum loadings^2}{number\ of\ items}$$

(HAIR et al., 2010, p. 679)

CONSTRUCTS	Cronbach's Alpha		CR		AVE	
	Original	Modified	Original	Modified	Original	Modified
Self-Transcendence	0.834	0.834	0.897	0.895	0.289	0.503
Openness to Change	0.762	0.777	0.827	0.844	0.421	0.426
Conservation	0.758	0.770	0.846	0.834	0.397	0.408
Self-Enhancement	0.807	0.807	0.880	0.880	0.281	0.526

Table 9. Table to show reliability measures for personal values. Source: Survey Data

It is possible to observe from the results Table 9 that all reliability indicators improve with the removal of the two items, with the exception of the composite reliability for self-transcendence and conservation. However, this is refuted by other two statistics: Cronbach's Alpha and AVE, which both improve in the new model. Regarding Cronbach's Alpha, all values are above the threshold of 0.7 as proposed by Hair et al. (2010). The same can be said for CR, none of the values are below 0.5. VME presents a different story, although all the values improve, both openness to change and conservation are below 0.50 as suggested by the literature.

2. Brand Concepts

The KMO value was 0.854, a considerably high value and well above the threshold of 0.60. The value of significance was 0.000. Also acceptable according to the literature. The anti-image values are shown in the table below, and none of the values are below 0.5, the cut-off point given by the literature (HAIR et al., 2010). Regarding communality, none of the values are below 0.5, however, there are many values that are close to this threshold value.

Without any restriction, the data tends towards four separate factors, as can be shown by the following table. The total explained variance, for these four dimensions is 68.654%, and the corresponding eigenvalues for each dimension are relatively large.

	Component				Anti-image	Communality
	1	2	3	4		
BRAND Universalism (Q8)	.866				.898	.763
BRAND Universalism (Q3)	.856				.824	.780
BRAND Universalism (Q19)	.831				.903	.699
BRAND Benevolence (Q12)	.825				.896	.759
BRAND Self-Direction (Q11)	.792				.915	.790
BRAND Benevolence (Q18)	.763				.839	.717
BRAND Self-Direction (Q1)	.738				.905	.775
BRAND Achievement (Q4)	.705		.408		.902	.840
BRAND Hedonism (Q21)	.693	.547			.890	.808
BRAND Stimulation (Q6)	.585				.906	.567
BRAND Stimulation (Q15)	.575	.504			.880	.674
BRAND Security (Q14)	.544				.836	.561
BRAND Hedonism (Q10)	.501	.685			.839	.755
BRAND Power (Q2)		.662			.613	.555
BRAND Tradition (Q9)		-.527			.664	.465
BRAND Conformity (Q16)			.842		.681	.790
BRAND Power (Q17)			.786		.621	.640
BRAND Achievement (Q13)	.431	.416	.468		.873	.724
BRAND Tradition (Q20)				.683	.669	.553
BRAND Security (Q5)				.648	.727	.659
BRAND Conformity (Q7)			.437	.586	.731	.544
Eigen-value	8.284	2.934	1.827	1.372		
Sum of square loadings % of variance	39.449	13.970	8.702	6.534		

Table 10. Table to show original rotation and associated statistics for brand concepts. Source: Survey Data

*Loadings less than 0.40 are not shown and variables are sorted by the highest loading.

It is possible to observe that the results are not so close theoretically as was the case with personal value. Even with manipulation and exclusion of the variables, it was not possible to achieve a result as successfully close to the theory as with

personal values. The first factor has 13 of the 21 items that make up values included. Even with manipulation, it would not be possible to achieve a result as close to the theory.

Considering H1 (the congruency between brand concepts and personal values will lead to purchase intention), it is important that the two constructs can be directly compared. Thus, decision was made in the present research to eliminate the same items as were eliminated in personal values. It is also important to underline that this analysis is being held on the pre-test, the sample number is considerably small. Further conclusion regarding this set of data will be made when the sample is increased.

By removing the questions that were excluded from personal values, the following results were obtained:

	Component			
	1	2	3	4
BRAND Universalism (Q3)	.861			
BRAND Universalism (Q8)	.837			
BRAND Benevolence (Q12)	.830			
BRAND Universalism (Q19)	.818			
BRAND Self-Direction (Q1)	.721			.420
BRAND Benevolence (Q18)	.681	.451		
BRAND Achievement (Q4)	.681			.539
BRAND Stimulation (Q6)	.525	.508		
BRAND Security (Q14)	.461		.419	
BRAND Hedonism (Q10)		.791		
BRAND Hedonism (Q21)	.590	.671		
BRAND Stimulation (Q15)	.489	.640		
BRAND Power (Q2)		.582		
BRAND Tradition (Q9)		-.537	.472	
BRAND Security (Q5)			.787	
BRAND Conformity (Q7)			.755	
BRAND Power (Q17)				.731
BRAND Conformity (Q16)			.548	.650
BRAND Achievement (Q13)		.469		.620

Table 11. Table to show modified rotation for brand concepts. Source: Survey Data

Regarding the reliability of the construct, the following values were extracted:

CONSTRUCTS	Cronbach's Alpha		CR		VME	
	Original	Modified	Original	Modified	Original	Modified
Self-Transcendence	0.903	0.903	0.945	0.944	0.658	0.653
Openness to Change	0.907	0.887	0.946	0.892	0.626	0.632
Conservation	0.659	0.693	0.753	0.844	0.278	0.435
Self-Enhancement	0.637	0.637	0.696	0.824	0.383	0.373

Table 12. Table to show reliability statistics for brand concepts. Source: Survey Data

Although the composite reliability for self-transcendence and openness to change decrease there is improvement of the VME. The most critical results are for conversation, that has a considerable improvement on VME, and self-enhancement that although has a low VME, has a substantial improvement on CR.

3. GREEN Values

GREEN values had a KMO value of 0.889 and a significance level of 0.000, both values keeping to what the literature had proposed as acceptable values (HAIR et al., 2010). The anti-image values were the following:

	Anti-image	Communality
Green (1)	.860	.812
Green (2)	.851	.865
Green (3)	.875	.774
Green (4)	.928	.783
Green (5)	.913	.861
Green (6)	.917	.770

Table 13. Table to show anti-image values for GREEN values. Source: Survey Data

All values are above 0.5. Communalities had the following output, once again, the values are within pattern and none of them appears below 0.5. For this construct, only one component was found, and it had a total explanation of 81,091 % of the model.

	Extracted sum of squared loadings	
	Total	**% variance explained**
1	4.865	81.091
2		

Table 14. Table to show total variance explained for GREEN values. Source: Survey Data

Regarding reliability, the following reliability values were extracted. All the values are above the acceptable threshold values, and are very satisfactory.

	Cronbach's Alpha	CR	AVE
GREEN values	0.953	0.9745	0.7737

Table 15. Table to show reliability measures for GREEN values. Source: Survey Data

Finally, using AMOS, further adjustment measures can be extracted to understand the validity of the model. The validity of the model has two components, according to Hair et al. (2010), namely, "(1) establishing acceptable levels of goodness-of-fit for the measurement model and (2) finding specific evidence of construct validity" (HAIR et al., 2010, p. 638). The validity and exploration of the construct has already been handled on the previous pages, it is important to concentrate on the idea that the model reproduces the covariance matrix. In an ideal research, the estimated and observed covariance matrixes would be identical. This analysis can be done using the following measures.

The Chi-squared statistic, χ^2, is essential to any structural equation model (HAIR et al., 2010). It is important to be cautious when considering this statistic since it is influenced by its sample size, and the sample increases so does the χ^2 statistic, and it will tend to increase when the number of variables or items increases. Therefore, it is important not to rely exclusively on this statistic to assess model validity. The lower the χ^2 statistic the more representative the data is of the model (HAIR et al., 2010).

Goodness-of-fit Index, or GFI, aims to correct the sensitivity to sample size, but the distributions are still affected it. GFI has values from 0 to 1, the latter indicates a better fit of the model. According to Hair et al. (2010) values greater than 0.9 are considered acceptable.

RMR, or Root Mean Square Residual, contemplates the residual associated to each covariance prediction. However, it is subject to difficult interpretation and it is better for researchers to have an overall residual value (HAIR et al., 2010, p. 641). RMR refers to the root square of the mean of the squared residuals (since they may be positive or negative, and their average is 0). There is no threshold value for RMR, lower values represent a better fit of the model.

Root Mean Square Error of Approximation, or RMSEA, aims to correct the flaws associated to the χ^2 test, namely the sample size and item tendency it has. Lower RMSEA values indicate a better fit of the model, and values between 0.05 and 0.08 are considered acceptable (HAIR et al., 2010).

Considering incremental fit indices, the model is compared to a null model, where the variables are uncorrelated. The Normed Fit Index (NFI) has values from 0 to 1, however NFI is influenced positively by the complexity of the model. CFI, or Comparative Fit Index varies between 0 and 1, with a threshold acceptable of 0.9.

The entire model was drawn on the AMOS software with the objective to extract the adjustment indices. It is important to keep in mind that the size of the sample is extremely small (n=90), so it is possible to observe that although the RMSEA and Chi Squared values are acceptable, the other indices are low.

Measure	Acceptable Value	Model
Chi Squared	-	1476.373
Degrees of Freedom (df)	-	886
Chi Squared/df	5	1.6663
Probability	-	0.000
GFI	0.9	0.625
CFI	0.9	0.779
NFI	0.9	0.597
RMR	Lower values	0.153
RMSEA	0.05 – 0.08	0.087

Table 16. Table to show adjustment measures for GREEN values. Source: Survey Data

Fornell and Larcker (1981) suggest that to test discriminant validity it is important to analyse the square correlation of each factor, this idea is also reflected by Hair et al. (2010, p. 665). When the factors have larger AVE values than the square of the correlations with other factors, the model has discriminant validity. The following table 19 shows the corresponding squared correlations and AVE values. The only relationship that did not show discriminant validity was Brand-Self-Enhancement and Brand-Self-transcendence. As this is the only case where the criteria was not met decision to act upon this was left for the larger sample of the final study.

Discriminant Validity refers to "the degree which two conceptually similar concepts are distinct" (HAIR et al, 2010, p. 125). In this case, the measures are ensuring that the scales in use are different from other similar concepts, and therefore overlapping concepts does not occur – these measures tell us how the constructs correlate with other constructs, and how the items represent this construct. The discriminant validity is put in question because several relationship were drawn from the modification indices to help goodness of fit (HAIR et al., 2010).

Latent Variable	1	2	3	4	5	6	7	8	9	10
1.Self-Transcendence	0.5203 *									
2. Openness to Change	0.0033 **	0.4261 *								
3.Self-Enhancement	0.0365 **	0.2673 **	0.5270 *							
4. Conservation	0.1584 **	0.0543 **	0.0228 **	0.4158 *						
5.BRAND: Self-Transcendence	0.0231 **	0.0276 **	0.0018 **	0.0071 **	0.6664 *					
6.BRAND: Openness to Change	0.0256 **	0.0008 **	0.0050 **	0.0088 **	0.5432 **	0.6526 *				
7.BRAND: Self-Enhancement	0.0048 **	0.0058 **	0.0009 **	0.0013 **	0.4844 **	0.0837 **	0.3913 *			
8.BRAND: Conservation	0.0154 **	0.0289 **	0.0441 **	0.0144 **	0.2362 **	0.0475 **	0.0204 **	0.3542 *		
9.GREEN values	0.2948 **	0.0032 49**	0.0142 **	0.1095 **	0.0529 **	0.0052 **	0.0108 **	0.0266 **	0.7737 *	
10.Purchase Intention	0.1129 **	0.0096 04**	0.0166 **	0.2228 **	0.0515 **	0.0445 **	0.0056 **	0.0497 **	0.1529 **	0.3278 *

*AVE

** Squared Correlation

Table 17. Table to show AVE and squared correlation values for all constructs.

Source: Survey Data

6.5 *Main Study Data Purification*

6.5.1 Missing Values

Using the same procedure and method in this chapter as was carried out for the pre-test sample, various missing values were excluded. Firstly, visual analysis was carried out to eliminate surveys that had not been completed fully, 14 surveys were eliminated. The final data collection totalizes 283 surveys at this point. With this first control question, 26 surveys were eliminated ad with the second question 3 more. The final data collection was n=254.

To make the data more solid, the pre-test data was added to this final database, so more 90 surveys were added. The final data was n=344. However, the same person might have answered both the pre-test and the final survey on Amazon's Mturk. Verification was held comparing both the data set respondents (IP address), and from the pre-test 12 surveys were eliminated, therefore the total database to carry on the analysis has n=332.

6.5.2 Outliers and Normality

From Hair et al. (2010)'s suggestion previously mentioned about outlying values, no values were identified from the rule ±4, from the normalized z-values. Three values were identified above 3.5, namely two values for self-direction (Q11), with a z-value of -3.7576, and one for Benevolence (Q12), with a value of -3.91246. However, they were not large enough to be excluded.

Through Mahalanobis (D^2) value, which is Mahalanobis distance extracted from SPSS divided the by the degrees of freedom (*df*), it is also possible to extract outliers. Hair et al. (2010) have suggested 3.5 or 4.0 for a significance level of $p<0.001$ or $p<0.0005$, and no values were identified as outliers through this rule. The values varied from 0.189563 to 2.571162.

Visually, through histograms, the SPSS output for the variables showed normality. However, some variables seemed to show skewness as for example Achievement (Q13), to one side. This said, skewness and kurtosis were calculated through SPSS, taking into consideration the before mentioned formulas and critical values proposed by Hair et al. (2010), namely ± 2.58 for a .01 significance level and ±

1.96 for a .05 significance error level. However, none of the variables exceeded the critical values.

Finally, normality can be assessed through the Kolmogorov-Smirnov (K-S) test, and Shapiro-Wilk (S-W) test, both available on SPSS. In the case of the K-S, if the statistic has p value < 0.05, then normality is not present in the sample. All values were below 0.05, and therefore no values showed Normality, for 5% significance based on the current sample. In relationship to the S-W test, the same rule can be applied – all p-values are below 0.05, therefore the data is not normally distributed.

6.6 Descriptive Statistics of the Sample

The final sample was composed of 116 male respondents, and 215 female respondents. The average age for respondents was 34.93, ranging results from 18 years old to 72 years old. Nationality was predominately North American, but there were respondents with nationality from Brazil, Colombia, India, Jamaica, Poland, Spain, Trinidad and Tobago, Ukraine and UK. Each of these countries had one respondent, which corresponds to a percentage of 0.30% for each country.

In relationship to annual income of the sample, the modal class was an income larger than 59,000 USD and the average class was 30,000 USD to 44,999 USD. The least frequent class was 45,000 USD to 59,000 USD. When considering education, most of the respondents had a university degree, this was the modal class with a total of 151 (45.6%) survey respondents. The average class was the High School class. The High School class corresponds to 36.9% of the sample, and the smallest class is incomplete high school with 0.60%.

6.7 Descriptive Statistical Analysis of the Constructs

6.7.1 Values

The table to describe the constructs has been organized in terms of high order value dimensions: ST corresponds to Self-Transcendence, OC to Openness to Change, SE to Self-Enhancement and C to Conservation. The numbers next to the value on the table's first column correspond to the question on Schwartz's 21 element Portrait Values Questionnaire. All values has answers ranging from 1 to 5, it is possible to high light the values of Self-Transcendence with a relatively high average, and from these Q12, Q18 and Q19 have a relatively low standard deviation.

Construct		N	Mean	Standard Deviation	Min	Max
Self Transcendence	ST Universalism (Q3)	331	4.09	1.031	1	5
	ST Universalism (Q8)	331	3.99	0.978	1	5
	ST Benevolence (Q12)	331	4.01	0.947	1	5
	ST Benevolence (Q18)	331	4.17	0.810	1	5
	ST Universalism (Q19)	331	4.10	0.938	1	5
Openness to Change	OC SelfDirection (Q1)	331	3.82	0.983	1	5
	OC Stimulation (Q6)	331	3.49	1.043	1	5
	OC Stimulation (Q15)	331	3.24	1.118	1	5
	OC SelfDirection (Q11)	331	4.17	0.844	1	5
	Hedonism (Q10)	331	3.26	1.082	1	5
	Hedonism (Q21)	331	3.33	0.968	1	5
Self Enhancement	SE Power (Q2)	331	2.73	1.145	1	5
	SE Achievement (Q4)	331	3.27	1.124	1	5
	SE Achievement (Q13)	331	3.02	1.155	1	5
	SE Power (Q17)	331	2.38	1.062	1	5
Conservation	C Security (Q5)	331	3.72	1.033	1	5
	C Conformity (Q7)	331	3.05	1.151	1	5
	C Tradition (Q9)	331	3.05	1.080	1	5
	C Security (Q14)	331	3.60	1.111	1	5
	C Conformity (Q16)	331	3.28	1.121	1	5
	C Tradition (Q20)	331	2.60	1.462	1	5

Table 18. Table to show descriptive Statistics of the constructs. Source: Survey Data

6.7.2 Brand Concepts

The same reasoning was used as before, corresponding the letters before the value to the high order value, and the Q number after the values, to the item on Schwartz's 21 PVQ. Q15, corresponding to the value stimulation had the highest average. The question asks: "The brand looks for adventures and likes to take risks. The brand wants to have an exciting life". The values that follow with the highest average all correspond to the high order value, Openness to change, which goes in line with Quiksilver's motto and image.

Construct		N	Mean	Standard Deviation	Min	Max
Conservation	BRAND C Security (Q5)	331	2.82	1.186	1	5
	BRAND C Conformity (Q7)	331	2.49	1.113	1	5
	BRAND C Tradition (Q9)	331	2.60	1.095	1	5
	BRAND C Security (Q14)	331	3.00	1.138	1	5
	BRAND C Conformity (Q16)	331	2.81	1.218	1	5
	BRAND C Tradition (Q20)	331	2.14	1.226	1	5
Self Enhancement	BRAND SE Power (Q2)	331	3.38	1.128	1	5
	BRAND SE Achievement (Q4)	331	3.89	1.100	1	5
	BRAND SE Achievement (Q13)	331	3.87	1.163	1	5
	BRAND SE Power (Q17)	331	2.94	1.122	1	5
	BRAND Hedonism (Q10)	331	3.66	1.275	1	5
	BRAND Hedonism (Q21)	331	3.85	1.193	1	5
Openness to Change	BRAND OC Self-Direction (Q1)	331	3.95	1.123	1	5
	BRAND OC Stimulation (Q6)	331	3.84	1.125	1	5
	BRAND OC Self-Direction (Q11)	331	3.92	1.136	1	5
	BRAND OC Stimulation (Q15)	331	4.00	1.174	1	5
Self Transcendence	BRAND ST Universalism (Q3)	331	3.38	1.114	1	5
	BRAND ST Universalism (Q8)	331	3.34	1.136	1	5
	BRAND ST Benevolence (Q12)	331	3.25	1.120	1	5
	BRAND ST Benevolence (Q18)	331	3.48	1.126	1	5
	BRAND ST Universalism (Q19)	331	3.52	1.202	1	5

Table 19. Table to show descriptive Statistics of the constructs. Source: Survey Data

6.7.3 GREEN Values

All of the averages for the GREEN values construct were above the mid-point of the Likert scale. The respondents ranged all values in answering the six items.

	N	Mean	Standard Deviation	Minimum	Maximum
Green (1)	331	3.93	0.951	1	5
Green (2)	331	3.60	1.087	1	5
Green (3)	331	3.48	1.107	1	5
Green (4)	331	3.97	1.012	1	5
Green (5)	331	3.58	1.074	1	5
Green (6)	331	3.60	1.086	1	5

Table 20. Table to show descriptive Statistics of the constructs. Source: Survey Data

6.7.4 Purchase Intention

An extra question was added in the final survey for strengthening the construct purposes, especially due to the difficulties encountered when manipulating the model on AMOS software. The average still remains considerably low, below the halfway point of the Likert Scale, but answers range all points on the scale.

	N	Mean	Standard Deviation	Minimum	Maximum
For my next purchase of clothes, I intend to buy from the brand Quiksilver.	331	2.47	1.051	1	5
The next time I buy any garment, I intend to buy from the brand Quiksilver.	331	2.36	1.010	1	5
How likely are you to purchase garments from Quiksilver in the next month?	253	2.00	1.17	1	5

Table 21. Table to show descriptive Statistics of the constructs. Source: Survey Data

6.8 Measurement Model Analysis

Maintaining Hair et al. (2010)'s suggestion to check for key assumptions, the procedure carried out for the pre-test was carried out for the final database. The Kaiser-Meyer-Olkin (KMO) index, Bartlett's Sphericity test and the anti-image correlation matrix were executed once again to understand the adequacy of the data. Guaranteeing the validity of the constructs, the confirmatory factorial analysis was held, and the reliability measures were analysed.

1. **Personal Values**

These values were obtained via SPSS software, and varimax rotation, with restriction to four factors. The conclusions that were reached in the pre-test were maintained regarding Q20 and Q11. Further changes were made however, Q1 had to be removed from the final data because it did not have a factor loading above 0.40 and did not figure in the factor analysis, and furthermore, its communality value has 0.372.

The Kaiser-Meyer-Olkin (KMO) value was 0.763 and the Bartlett test, stating that significance should be below 0.05 was completed, since significance was 0.000. Anti-image values should not be below 0.7 – two constructs were below, Stimulation

(Q15) and Hedonism (Q10). Regarding communality, three values slipped the recommendation the literature made, namely Universalism (Q19), Benevolence (Q19) and Security (Q5). The values for the first two were extremely close to the threshold.

		1	2	3	4	Anti image	Communality
ST	ST Universalism (Q3)	.755				0.802	.591
	ST Universalism (Q8)	.763				0.813	.595
	ST Benevolence (Q12)	.829				0.803	.698
	ST Benevolence (Q18)	.692				0.761	.498
	ST Universalism (Q19)	.664				0.853	.488
OC	OC Stimulation (Q6)				0.74	0.711	.607
	OC Stimulation (Q15)				0.79	0.693	.669
	Hedonism (Q10)				0.66	0.680	.525
	Hedonism (Q21)				0.75	0.723	.634
SE	SE Power (Q2)			0.739		0.801	.606
	SE Achievement (Q4)			0.719		0.769	.571
	SE Achievement (Q13)			0.833		0.716	.735
	SE Power (Q17)			0.649		0.843	.530
C	C Security (Q5)		.579			0.735	.460
	C Conformity (Q7)		.834			0.733	.698
	C Tradition (Q9)		.703			0.794	.578
	C Security (Q14)		.677			0.787	.566
	C Conformity (Q16)		.808			0.765	.678
	Eigen-value	3.560	3.349	2.560	1.259		
	Total Explained Variance (%)	19.777	18.604	14.221	6.992		

Table 22. Table to show original rotation and associated statistics for personal values. Source: Survey Data

*Loadings less than 0.40 are not shown and variables are sorted by the highest loading.

NB: Pink represents the higher order value self-transcendence, blue openness to change (including hedonism), green self-enhancement and purple conservation. These colours were allocated for visual aid purposes

Reliability

Following the same procedure as was done in the pre-test, reliability measures have to be analysed taking into consideration Alpha's Cronbach Composite Reliability (CR) and Average Variance Extracted (AVE). Remembering the threshold values for each measure: according to Hair et al. (2010) Cronbach's Alpha should be 0.70, and VME and CR should be 0.5.

CONSTRUCTS	Cronbach's Alpha	CR	AVE
Self-Transcendence	0.812	0.879839	0.472764
Openness to Change	0.774	0.816787	0.431187
Conservation	0.789	0.847017	0.422573
Self-Enhancement	0.790	0.865826	0.492833

Table 23. Table to show reliability measures for personal values. Source: Survey Data

The reliability values for the constructs are satisfactory – the only value that does not reach the threshold value is the AVE value for Self-enhancement.

2. **Brand Concepts**

In this case, the same logic was maintained, as for the pre-test and as was used for personal values. When the factor analysis was held freely (without factor restriction), four factors were identified (excluding the questions Q11 and Q20). The factors were totally aligned theoretically, with a small exception – Q1 was placed in two factors, Q4 and Q13. Maintaining the same structure as personal values Q1 was excluded.

The KMO value was 0.871, and significance was 0.000, fulfilling Bartlett's test. The anti-image values are shown in the table below, and none of the values are above 0.7, the cut-off point given by the literature (HAIR et al., 2010). Regarding communality, three values are below 0.5, but two of them are very near 0.5. The table presented has no factor restriction, and each factor has a high eigenvalue as well as corresponding total explained variance.

		1	2	3	4	Anti image	Commu nality
C	BRAND C Security (Q5)			0.816		0.837	.591
	BRAND C Conformity (Q7)			0.805		0.86	.595
	BRAND C Tradition (Q9)			0.716		0.838	.698
	BRAND C Security (Q14)			0.640		0.911	.498
	BRAND C Conformity (Q16)			0.792		0.817	.488
SE	BRAND SE Power (Q2)				0.809	0.699	.607
	BRAND SE Achievement (Q4)		0.595		0.459	0.855	.669
	BRAND SE Achievement (Q13)		0.523		0.630	0.828	.525
	BRAND SE Power (Q17)				0.703	0.729	.634
OC	BRAND Hedonism (Q10)		0.849			0.875	.606
	BRAND Hedonism (Q21)		0.874			0.855	.571
	BRAND OC Stimulation (Q6)		0.711			0.925	.735
	BRAND OC Stimulation (Q15)		0.842			0.904	.530
ST	BRAND ST Universalism (Q3)	0.872				0.877	.460
	BRAND ST Universalism (Q8)	0.873				0.88	.698
	BRAND ST Benevolence (Q12)	0.868				0.895	.578
	BRAND ST Benevolence (Q18)	0.719				0.926	.566
	BRAND ST Universalism (Q19)	0.770				0.939	.678
	Eigen-value	5.75	3.747	2.074	1.091		
	Total Explained Variance (%)	31.943	20.818	11.522	6.062		

Table 24. Table to show rotation factors for Brand Concepts and associated statistics.

Source: Survey Data

*Loadings less than 0.40 are not shown and variables are sorted by the highest loading.

NB: Pink represents the higher order value self-transcendence, blue openness to change (including hedonism), green self-enhancement and purple conservation. These colours were allocated for visual aid purposes.

Regarding the reliability of the construct, the following values were extracted:

CONSTRUCTS	Cronbach's Alpha	CR	AVE
Self-Transcendence	0.910	0.94864	0.472764
Openness to Change	0.881	0.931391	0.431187
Conservation	0.837	0.893771	0.422573
Self-Enhancement	0.722	0.750569	0.415242

Table 25. Table show reliability statistics for brand concepts. Source: Survey Data

All the values are quiet high and solid, with the exception of the AVE values that do not reach the threshold of 0.50, these are backed up by Cronbach's Alpha and Composite Reliability.

3. **GREEN Values**

GREEN values had a KMO value of 0.889 and a significance level of 0.000, both values keeping to what the literature had proposed as acceptable values (HAIR et al., 2010). The anti-image values were the following:

	Anti-image	Communality
Green (1)	.913	.738
Green (2)	.872	.833
Green (3)	.895	.803
Green (4)	.929	.744
Green (5)	.936	.797
Green (6)	.928	.778

Table 26. Table to show anti-image values for GREEN values. Source: Survey Data

Both values for anti-image and communalities are considerably high, and within the limits set by literature (HAIR et al, 2010). Only one factor was found without any factor restriction, and it had an Eigen value of 4.692 and a total explained variance of 78.206.

Regarding reliability, the following reliability values were extracted. All the values are above the acceptable threshold values, and are very satisfactory.

	Cronbach's Alpha	CR	AVE
GREEN values	0.944	0.967761	0.729871

Table 27. Table to show reliability measures for GREEN values. Source: Survey Data

Using AMOS to extract the reliability measures that mentioned before, to ensure goodness of fit the following measures were extracted:

Measure	Acceptable Value	Model
Chi Squared	-	1562.839
Degrees of Freedom (df)	-	845
Chi Squared/df	5	1.8495
Probability	-	0.000
GFI	0.9	0.823
CFI	0.9	0.917
NFI	0.9	0.837
RMR	Lower values	0.081
RMSEA	0,05 – 0,08	0.051

Table 28. Table to show reliability measures for GREEN values. Source: Survey Data

The following table is the discriminant validity table proposed by Fornell and Lacker (1981):

Latent Variable	1	2	3	4	5	6	7	8	9	10
1. Self-Transcendence	0.47319*									
2. Openness to Change	0.0234**	0.4313*								
3. Self-Enhancement	0.0250**	0.1467**	0.4929*							
4. Conservation	0.0256**	0.0053**	0.0630**	0.4228*						
5. BRAND: Self-Transcendence	0.0778**	0.0049**	0.0067**	0.0467**	0.6736*					
6. BRAND: Openness to Change	0.0021**	0.0061**	0.0110**	0.0026**	0.2550**	0.6493*				
7. BRAND: Self-Enhancement	0.0475**	0.0008**	0.0246**	0.0313**	0.2016**	0.4597**	0.4173*			
8. BRAND: Conservation	0.0053**	0.0006**	0.0615**	0.2460**	0.2362**	0.0506**	0.0022**	0.5093*		
9. GREEN values	0.2228**	0.0266**	0.0074**	0.0083**	0.0708**	0.0121**	0.0420**	0.0012**	0.7231*	
10. Purchase Intention	0.0034**	0.0266**	0.0108**	0.0266**	0.0912**	0.0000**	0.0002**	0.0740**	0.0237**	0.9361*

Table 29. Table to show AVE and squared correlation of the constructs. Source: Survey Data

*AVE

** Squared Correlation

In relationship to the discriminant validity of the final mode, all constructs, with the exception of one, met the criteria proposed by Fornell and Lacker (1981). The relationship between the two constructs that did not meet the criteria, we are able to observe in the confirmatory factorial analysis before. The criteria suggests that the latent construct "should explain more of the variance in its item measures that it shares with another construct" (HAIR et al., 2010, p. 680).

Self-transcendence and openness to change, when considering the brand are indeed overlapping. When analysing the factorial Table 24, both achievement items, especially Q4 have a loading that is associated with the openness to change dimension. Hair et al. (2010) explain that when there is "there is a presence of cross-loadings there is a discriminant validity problem" (HAIR et al., 2010, p.680). However, considering H2 and the alignment that is necessary between all items, these questions were left since there is no overlapping or cross loadings in personal values. This decision is supported by Hair et al. (2010): "Model respecification, for whatever reason, always impacts the underlying theory upon which the model was formulated. (…) given the strong theoretical basis for CFA [Confirmatory Factorial Analysis], the researcher should avoid making changes based solely on empirical criteria such as the diagnostics provided by CFA. Moreover, other concerns should be considered before making any change, including the theoretical integrity of the individual constructs and the overall measurement model and the assumptions and guidelines that go along with good practice…" (Hair et al., 2010, p. 680).

Considering that to check the hypothesis it is necessary to compare both the altered PVQ for personal values and brands concepts, and considering how well the alignment was for personal values, then the question was maintained and not removed.

7 MODEL VERIFICATION AND CONCLUSIONS

7.1 *Statistical Results*

To verify the hypothesis and model that were initially presented this research has used the statistical packages SPSS and EViews (an econometrical package used for econometric analysis). H1 refers to the relationship of congruence between personal values and brand concepts, and H2 refers to the moderating role that GREEN values will have in this model, thus H1 will be tested on SPSS using a simple regression and H2 will be tested on EViews using OLS estimation.

To address congruence, the dependent variable that includes Personal Values and Brand Concepts, a new variable was calculated. This new variable is the mean of the personal values minus the value for brand concepts, and the answer squared, to eliminate negative results, as showed below:

$$Congruence_i = (Personal\ Values_i - Brand\ Concepts_i)^2$$

Hypothesis 1

The model was tested initially for H1, and then for H1a, H1b, H1c and H1d contemplating all the high order values included in the general value construct. To test the first hypothesis, the following regression had significance (p-value = 0.002) with an R^2 of 2%, and therefore with basis on our sample, H1 was significant. In the following equation, PI represents the dependent variable purchase intention, and V the independent variable, the congruence between values:

$$\widehat{PI} = 2.611 - 0.096V$$

Taking into consideration the high order values individually and therefore considering the hypothesis H1a, H1b, H1c and H1d the following equations were estimated. PI stands for the dependent variable purchase intention, ST represents the congruence for Self-Transcendence, OC represents the congruence for Openness to change, and CN represents the congruence for Conservation.

$$\widehat{PI} = 2.514 - 0.058ST$$
$$\widehat{PI} = 2.501 - 0.045OC$$
$$\widehat{PI} = 2.519 - 0.063CN$$

Self-Enhancement is not included for it did not have statistical significance, $p > 0.05$, there was only statistical significance for the other three dimensions ($p < 0.05$). The independent variable coefficient for these three equations is negative, therefore when the dependent variable increases (congruence is smaller), then purchase intention will decrease.

Hypothesis 2

The second hypothesis addresses the moderation of the model. Hayes (2012) proposed that moderation could be represented generically by the following equation:

$$Y = c + \beta_1 X + \beta_2 M + \beta_3 (X * M) + e_n$$

(NB: Y represents the dependent variable, X the independent variable and M the moderator). In this equation, the βs represent the coefficients of the equation and c the constant. The product result (X*M) is the effect of the moderation. Particularly in this research's case, the following equations are employed:

$$PI = c + \beta_1 V + \beta_2 G + \beta_3 (G * V) + e_n \text{ (H2)}$$
$$PI = c + \beta_1 ST + \beta_2 G + \beta_3 (G * ST) + e_n \text{ (H2a)}$$
$$PI = c + \beta_1 OC + \beta_2 G + \beta_3 (G * OC) + e_n \text{ (H2b)}$$
$$PI = c + \beta_1 SE + \beta_2 G + \beta_3 (G * SE) + e_n \text{ (H2c)}$$
$$PI = c + \beta_1 CN + \beta_2 G + \beta_3 (G * CN) + e_n \text{ (H2d)}$$

(NB: The notation used before is kept, and the following items are added as independent variables: ST represents the congruence for Self-Transcendence, OC represents the congruence for Openness to change, SE represents the congruence for Self-Enhancement, CN represents the congruence for Conservation. G represents GREEN values, and this variable is the moderation variable).

Initially H2 (with all higher order values) was considered, but the regression outcome was not significant for any coefficient, only for GREEN (annex 3), this way it seemed pertinent to analyse the equation opening up the values included in values in general, in other words, the sub-hypothesis previously mentioned. Since the higher order values are included in this larger dimension, there is overlapping of the values embedded in this general value. Therefore, it is important to break down the equation and contemplate the higher order values in general.

Considering that Self-Enhancement was not supported for H1, it is expected that it will have no significance when the moderation regression includes this variable (Table 29 – Model 1, Annex 3). It is possible to observe from the table below that the coefficients related to self-enhancement are not significant. Therefore, a new regression was created including only the three remaining high order values, and the corresponding moderation. It is possible to observe that there is an improvement on the F statistic, even though the R^2 decreases. It is also possible to observe that the p-values for self-transcendence improve by removing this variable from the regression. However, observing the second model from the table below, the coefficients associated to conservation are not significant.

Considering this, conservation was removed from the regression and third model was considered. Once again, the F-statistic improves, and the coefficient for GREEN values that had lost significance becomes significant once again. At a significance level of 10% all values on the third model are significant. Considering our sample, there is statistical significance to support H2a and H2b.

	Model		
	(1)	**(2)**	**(3)**
Constant	1.939 (0.000)	2.072135 (0.000)	1.943518 (0.000)
Openness to Change	-0.200467 (0.0338)	-0.188170 (0.0441)	-0.187325 (0.0436)
Self-Transcendence	0.154992 (0.1102)	0.177621 (0.0462)	0.132931 (0.0783)
Conservation	-0.107310 (0.3343)	-0.095493 (0.3931)	
Self-Enhancement	0.086370 (0.3363)		
GREEN values	0.199462 (0.0819)	0.160488 (0.1846)	0.176674 (0.0836)
GREEN values*Openness to Change	0.048789 (0.0507)	0.045329 (0.0642)	0.041017 (0.0971)
GREEN values*Self-Transcendence	-0.051171 (0.0438)	-0.056619 (0.0161)	-0.047497 (0.0237)
GREEN values*Conservation	0.011187 (0.7298)	0.008963 (0.7839)	
GREEN values*Self-Enhancement	-0.022986 (0.3351)		
R^2	0.093019	0.090280	0.077259
$F_{statistic}$	3.657924	4.579198	5.442315

Table 30. Table to show regression and associated statistics. Source: Survey Data

NB: The dependent variable is purchase intention, the values out of the brackets are the coefficients for each independent and moderator variable, and the p-values for each coefficient are in parenthesis.

The final equation for the model can be summarized as follows:

$$\widehat{PI} = 1.943518 - 0.187325OC + 0.132931ST + 0.176674G$$
$$+ 0.041017\,(OC * G) - 0.047497\,(ST * G)$$

Remembering the notation employed previously, PI represents Purchase Intention as dependent variable; OC the congruence for openness to change, ST the congruence for self-transcendence as independent variables, G represents GREEN values, and the multiplication between the latter and the former, is the moderator effect. Thus, -0.187325 is the coefficient for the congruence for openness to change, 0.132931 the coefficient for the congruence for openness to change, 0.176674 is coefficient for the moderator GREEN values, and 0.041017 and -0.047497 the coefficient for the moderation effect for the congruence for openness to change and self-transcendence, respectively.

Interpreting the equation, there is positive influence of green values on purchase intention. The congruence of openness to change has a negative impact on purchase intention (the larger the difference between personal values and brand concepts the smaller the purchase intention), and self-transcendence has a positive effect on purchase a positive effect on purchase intention (the larger the difference between personal values and brand concepts the larger the purchase intention). In relationship to the moderating effect of GREEN values, in openness to change GREEN values enhance purchase intention and in self-transcendence they decrease purchase intention.

7.2 Discussion & Final Conclusions

This research aimed to explore in greater depth consumer behaviour within green brands from an ecological perspective. This research collected data so that it could verify its hypothesis, aiming to understand consumer behaviour amidst environmental concerns. The data was first compared theoretically to ensure that the value dimensions proposed by Schwartz were verified so that conclusions could be drawn on these values. This analysis was done by a factor analysis, with SPSS and AMOS. This analysis served the first objective of the research to understand if the data had the same structure as was proposed theoretically.

The data was similarly distributed, with the exclusion of three items from the survey, one item that corresponded to tradition and two items that corresponded to self-direction, the structure was verified when taking into consideration the four higher order values. Once the theoretical structure was addressed, the data was used to verify the hypothesis that had been proposed at an earlier stage. This verification was done using SPSS and EViews.

The first hypothesis was not verified for self-enhancement, but was for all the other three dimensions. The first hypothesis allowed us to verify that if consumers share common values with the brand purchase intention will increase (BRANAGHAN; HILDEBRAND, 2011; SIRGY, 1981; AAKER, 1997; HOHENSTEIN et al., 2007; ALLEN, 2008; ROY; RABBANEE, 2015). Brand preference is influenced by the congruity between the values a consumer perceives on the brand and those values that the consumer holds (AAKER, 1997). In this case, preference for the brand Quiksilver increased when there was congruity between the consumer and the values it perceived for this brand. This was valid for three of the four high order values, namely self-transcendence, conservation and openness to change. Research throughout time has shown that the consumer will inevitably compare him or herself to the brand that is being considered for purchase. The brand can be representation of how consumers sees themselves, so the congruity between values is very important in purchase intention. However, the self-enhancement sub-hypothesis (H1c) did not have statistical validity.

Self-enhancement includes values of achievement and power, this dimension refers to values that are driven by egoistic dimensions and personal success, power and influence over others. (SCHWARTZ; BILSKY; 1994). Furthermore, research has

shown that a group of consumers opt for green products in an attempt to construct their identity and communicate (SCHAEFER; CRANE, 2005). Therefore, their consumption is not reflecting a preoccupation with the environment and the world at large, or values they internally hold, but these consumers are concerned with creating the correct image as themselves, through their consumption. This way, a congruence between their values and their perception of brand concepts is not significant when purchasing green products, these consumers may purchase green products independent of a match between the consumer's values and the brand concepts. This was supported by the non-significance of H1 in this dimension. The idea that was debated in the beginning of the research that consumers who showed antagonistic values ended up making green choices within their consumption was further shown in this research. In the value dimension self-enhancement, it is not necessary a congruence between values for a relationship with purchase intention to occur. Grikevicius et al. (2010) addressed this issue when the authors suggested that green oriented purchases were motivated by status motives.

When considering H2, the moderation coefficient was only significant when considering the equation with two high order values – openness to change and self-transcendence. It is interesting to note that conservation was not significant in this analysis. Previous studies have shown that people who are associated with this high order value are strongly conservative and religious; they mainly promote pro-social behaviour within groups, and do not extend this behaviour to society in general. Furthermore, religious behaviours do not promote ecological values (SAROGLOU, et al., 2003). This way, it is clearer why these consumers would not be stimulated by GREEN values, and H2d would not have significance.

The openness to change higher order value includes consumers that are willing to embrace excitement, and they enjoy being autonomous. These consumers are more independent thinkers, especially considering the contrast between the opposite high order value – conservation. It is natural that these consumers are more open to the novelty of green causes.

However, in self-transcendence, the high order value that considers the environment, in the environmental scenario and when purchasing green products, a congruity is not necessary for purchase intention to increase, in fact increasing GREEN values will lead to decrease of purchase intention. The moderator effect was negative. Findings have shown that self-transcendence consumers want to behave and

purchase in a way that will not compromise future generations (URIEN; KILBOURNE, 2011). This may be bring up notions of decreasing consumption, and the mind-set that the levels of consumption that are maintained nowadays cannot be sustained. Urien and Kilbourne (2011) suggest that the concern for future generations, the desire for public good and giving intergeneration continuity go hand in hand with the preservation of the environment. People with these values, essentially self-transcendence values, are worried about failing to provide for future generations environmental qualities of the world that currently our behaviours are daring to put in question, and these may perhaps vanish. Therefore, purchasing actions may be motivated not only for environmentally friendly products, but also for a decrease of consumption.

Additionally, when considering the moderation equation the impact of self-transcendence was positive, but when tested without the GREEN values as a moderator in the equation, the coefficient was negative. These coefficients warn us that when considering H1, perhaps not all variables were being included in what would influence purchase intention, therefore simple statistical results will may not draw a real representation (FLORES, 2015).

7.3   Academic and Managerial Implications

Results indicate that consumers can act in a way that is not always straightforward or with a simple relationship when it comes to their values and purchase intention, as was shown in the results. These results back the idea that environmental and green concerns are shaping the world where we live, that although not every consumer has this anxiety, they may feel the need to succumb to these interests socially, and in an attempt to create their image.

This is the main and most important contribution that this research brings, the importance of green values for all types of consumers, and the relevance it has when purchasing environmental-friendly brands. For environmentally friendly products, it is not necessary for to exist a match between values for purchase to occur. This is an extremely relevant step for consumer theory, and it helps understand the motivation to purchase green products. It would be interesting to further explore the self-transcendence high order value and the purchase intention orientation when considering green products, since these values may stimulate ideas of anti-

consumerism ideals.

The self-transcendence category was extremely interesting in this research and leaves much room for more research to be carried out. The fact that in the moderation equation, these consumers would increase their purchase intention despite congruency, and previously it had been shown that congruency was necessary, as well as the negative sign of the moderation effect on self-transcendence. Notions of decreasing overall consumption, source reduction, could be another tendency amongst these types of consumers and research should be furthered (GOLDMAN, 1991).

This conclusion should not be left exclusively for the academia, it is extremely important that brands recognize this world tendency where environmental concerns are extremely relevant, and that they do not leave any stone unturned when it comes to industry or consumers. Brands should take advantage of this movement for their own purposes and in an attempt to comply with their world citizen obligation of caring for the environment.

Furthermore, this research used a recently validated scale that was extremely pertinent and up-to-date regarding the relevance of GREEN issues. The scale provided by HAWS, et al., 2010 was tremendously useful and to the point in this research.

7.4 Research Limitations

It is important to identify the research limitations so that future research and the chain of thought of this issue are not lost. On a first note, the research excluded two items from Schwartz's PVQ, which then eliminated one value: self-direction. Even though importance was being given to high order values and that the ten individual values are very tangent to another, it did not lose the sense or direction of the higher order value. However, for future research suggestion is given that the data perhaps be larger so that one value is not taken out of consideration, and the theory is perfectly aligned with Schwartz's Value theory.

Secondly, this study was executed solely through Amazon's Mturk, and restricted to the USA. Although this a common and frequent tool, certain problems become associated to using this tool, for example, not everyone has access to a computer, and respondents may have a similar profile which can put in question

certain conclusions. Furthermore, it would be interesting to apply this research to other countries, as it was only available to North American residents.

Lastly, when considering solely linear regression, as is done in Applied Social Sciences other types of behaviours are not considered, and relationships might be exponential or logarithmic. This limitation is frequent in social sciences.

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9 ANNEXS
9.1 Annex 1 – Questionnaire

Schwartz's Portrait Value Questionnaire (21 items)

BENEVOLENCE

12. It's very important to him to help the people around him. He wants to care for other people.

18. It is important to him to be loyal to his friends. He wants to devote himself to people close to him.

UNIVERSALISM

3. He thinks it is important that every person in the world be treated equally. He wants justice for everybody, even for people he doesn't know.

8. It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them.

19. He strongly believes that people should care for nature. Looking after the environment is important to him.

SELF-DIRECTION

1. Thinking up new ideas and being creative is important to him. He likes to do things in his own original way.

11. It is important to him to make his own decisions about what he does. He likes to be free to plan and to choose his activities for himself.

STIMULATION

6. He likes surprises and is always looking for new things to do. He thinks it is important to do lots of different things in life.

15. He looks for adventures and likes to take risks. He wants to have an exciting life.

HEDONISM

10. Having a good time is important to him. He likes to "spoil" himself.

21. He seeks every chance he can to have fun. It is important to him to do things that give him pleasure.

ACHIEVEMENT

4. It is very important to him to show his abilities. He wants people to admire what he does.

13. Being very successful is important to him. He likes to impress other people.

POWER

2. It is important to him to be rich. He wants to have a lot of money and expensive things.

17. It is important to him to be in charge and tell others what to do. He wants people to do what he says.

SECURITY

5. It is important to him to live in secure surroundings. He avoids anything that might endanger his safety.

14. It is very important to him that his country be safe from threats from within and without. He is concerned that social order be protected.

CONFORMITY

7. He believes that people should do what they're told. He thinks people should follow rules at all times, even when no-one is watching.

16. It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong.

TRADITION

9. He thinks it's important not to ask for more than what you have. He believes that people should be satisfied with what they have.

20. Religious belief is important to him. He tries hard to do what his religion requires.

Green Values – Haws et al. 2010

1. It is important to me that the products I use do not harm the environment.

2. I consider the potential environmental impact of my actions when making many of my decisions.

3. My purchase habits are affected by my concern for our environment.

4. I am concerned about wasting the resources of our planet.

5. I would describe myself as environmentally responsible.

6. I am willing to be inconvenienced in order to take actions that are more environmentally friendly.

<u>Purchase Intention - Netermeyer et al., 2004</u>

1. For my next purchase of (product category), I intend to buy a (brand name).

2. The next time I buy a (product category), I intend to buy a (brand name) brand.

9.2 Annex 2 – EViews Ouput

Output to show regression with all value congruence in general

Dependent Variable: PI
Method: Least Squares
Date: 10/23/15   Time: 14:07
Sample: 1 331
Included observations: 331
HAC standard errors & covariance (Bartlett kernel, Newey-West fixed
      bandwidth = 6.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.690675	0.416042	4.063710	0.0001
GERAL	0.015226	0.154478	0.098566	0.9215
GRT	0.263555	0.118467	2.224704	0.0268
GRT*GERAL	-0.032270	0.042622	-0.757116	0.4495

R-squared	0.064587	Mean dependent var	2.415408
Adjusted R-squared	0.056005	S.D. dependent var	1.013741
S.E. of regression	0.984945	Akaike info criterion	2.819548
Sum squared resid	317.2279	Schwarz criterion	2.865495
Log likelihood	-462.6352	Hannan-Quinn criter.	2.837874
F-statistic	7.526097	Durbin-Watson stat	1.887170
Prob(F-statistic)	0.000070	Wald F-statistic	4.782832
Prob(Wald F-statistic)	0.002819		

C represents the constant; GERAL represents the congruence for all values; GRT represents GREEN values and GRT*GERAL the moderation effect between the last two variables.

9.3 Annex 3 – EViews Ouput

Output to show regression with all variables excluding Self- Enhancament

Dependent Variable: PI
Method: Least Squares
Date: 10/23/15   Time: 14:45
Sample: 1 331
Included observations: 331
White heteroskedasticity-consistent standard errors & covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.072135	0.425435	4.870628	0.0000
CT	-0.095493	0.111676	-0.855094	0.3931
OC	-0.188170	0.093114	-2.020865	0.0441
ST	0.177621	0.088766	2.000993	0.0462
GRT	0.160488	0.120715	1.329471	0.1846
GRT*CT	0.008963	0.032649	0.274529	0.7839
GRT*OC	0.045329	0.024411	1.856871	0.0642
GRT*ST	-0.056619	0.023411	-2.418494	0.0161

R-squared	0.090280	Mean dependent var		2.415408
Adjusted R-squared	0.070565	S.D. dependent var		1.013741
S.E. of regression	0.977320	Akaike info criterion		2.815866
Sum squared resid	308.5146	Schwarz criterion		2.907760
Log likelihood	-458.0258	Hannan-Quinn criter.		2.852517
F-statistic	4.579198	Durbin-Watson stat		1.914075
Prob(F-statistic)	0.000068	Wald F-statistic		3.832516
Prob(Wald F-statistic)	0.000510			

C represents the constant; CT represents the congruence for Conservation; OC represents the congruence for openness to change; ST represents the congruence for self-transcendence; GRT represents GREEN values and GRT*CT, GRT*OC, GRT*ST and GRT*SE the moderation effect between the GREEN values and the higher order values.

9.4 Annex 4 – EViews Ouput

Output to show regression with all variables excluding Self- Enhancement and Conservation

Dependent Variable: PI
Method: Least Squares
Date: 10/23/15   Time: 14:50
Sample: 1 331
Included observations: 331
White heteroskedasticity-consistent standard errors & covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.943518	0.371418	5.232694	0.0000
OC	-0.187325	0.092490	-2.025347	0.0436
ST	0.132931	0.075257	1.766374	0.0783
GRT	0.176674	0.101814	1.735263	0.0836
GRT*OC	0.041017	0.024653	1.663764	0.0971
GRT*ST	-0.047497	0.020892	-2.273393	0.0237

R-squared	0.077259	Mean dependent var	2.415408
Adjusted R-squared	0.063063	S.D. dependent var	1.013741
S.E. of regression	0.981256	Akaike info criterion	2.817993
Sum squared resid	312.9304	Schwarz criterion	2.886914
Log likelihood	-460.3779	Hannan-Quinn criter.	2.845482
F-statistic	5.442315	Durbin-Watson stat	1.912725
Prob(F-statistic)	0.000080	Wald F-statistic	4.751327
Prob(Wald F-statistic)	0.000333		

C represents the constant; OC represents the congruence for openness to change; ST represents the congruence for self-transcendence; SE represents the congruence for self-enhancement; GRT represents GREEN values and GRT*CT, GRT*OC, GRT*ST and GRT*SE the moderation effect between the GREEN values and the higher order values.