

UNIVERSIDAD DE CÓRDOBA
FACULTAD DE CIENCIAS Y EMPRESARIALES
(ETEA)

**Un estudio internacional sobre los motivos que
inducen a un consumo sostenible**

-

An international study about environmental motives driving sustainable
consumption

Tesis para la obtención del grado de Doctor

Directores: Dr. Horacio Molina Sánchez

Dr. Jesús Ramírez Sobrino

Autor: Johannes Stolz

Córdoba, Diciembre de 2012

TITULO: *Un estudio internacional sobre los motivos que inducen a un consumo sostenible*

AUTOR: *JOHANNES STOLZ*

© Edita: Servicio de Publicaciones de la Universidad de Córdoba.
Campus de Rabanales
Ctra. Nacional IV, Km. 396 A
14071 Córdoba

www.uco.es/publicaciones
publicaciones@uco.es

This thesis is dedicated to my parents

Acknowledgements

I would like to thank all those people who made this thesis possible and who supported my undertaking in the last two and a half years.

First of all I would like to express my deepest sense of Gratitude to my supervisors Horacio Molina and Jesús Ramírez, who trusted in my skills from the first moment on and who offered their continuous advice and encouragement throughout the course of this thesis. I also gratefully acknowledge Nikolaus Mohr for his assistance to my research.

I want to thank my colleagues Rafael Bautista and Marta de Vicente for their collaboration and for their help in all aspects. I am indebted to the institution ETEA for their education and their support during my stay in Córdoba.

I especially thank my fellow students Johannes Fürst, Johannes Berger, and Christoph Gaasch for their advice and comments during early stages of my research. I am also indebted to Kerry Killduff and Jack Evans for their help by reviewing my language skills.

My very sincere thanks belong to Heinrich Herrmann and to Franz and Hildegard Fuchs for their generous care which simplified my stay abroad.

A special thank belongs to Laura Badurina for her patience, her kindness, her motivation, and her right words at the right time. Laura was an unimaginable mental support during the last year of this thesis.

Finally, I take this opportunity to express my gratitude to my family, my parents Peter and Marlis, and my brothers Markus and Daniel who gave me strength and who never doubted about my capabilities. Writing this thesis would have been impossible without them.

Index of contents

Acknowledgements	5
Chapter 1 Introduction	15
Chapter 2 Theoretical and empirical framework	25
Theoretical-based framework	27
2.1 Sustainability and Corporate Social Responsibility	27
2.1.1 Defining Sustainability	27
2.1.2 Sustainability versus Corporate Social Responsibility	29
2.1.3 Sustainable consumption	29
2.2 Consumer perception.....	30
2.2.1 Conscious Perception	30
2.2.2 Unconscious perception.....	32
2.2.3 Practical implications	33
2.3 Environmental motive concerns.....	33
2.4 The cultural impact on sustainable behavior	36
Empirical-based framework.....	38
2.5 Questionnaire.....	38
2.5.1 Technique	39
2.5.2 Composition	41
2.5.3 Return	44
2.6 Measures.....	45
2.6.1 Structural Equation Modeling	45
2.6.2 Chi-square Automatic Interaction Detectors (CHAID).....	47
2.6.3 One-way Anova and Student's t-test.....	47
Chapter 3 Perception of individual responsibility towards the environment	49
3.1 Introduction	51
3.2 Literature Review	53
3.2.1 Environmental sustainable behavior – A shared responsibility.....	53
3.2.2 Individual responsibility	55
3.3 Theory and hypotheses.....	57
3.4 Methodology	59

3.5	Results	60
3.6	Discussion	67
3.7	Conclusion.....	69
3.8	Appendix	71
Chapter 4 Perception of the environmental performance in retail stores		79
4.1	Introduction	81
4.2	Literature review	82
4.2.1	Sustainability in retail practice	82
4.2.2	Perception of environmental retail performance	83
4.2.3	Environmental motive concerns	84
4.3	Theory and hypotheses	85
4.4	Methodology	86
4.5	Results	87
4.5.1	Motive-based results.....	87
4.5.2	Perception-based results	91
4.6	Conclusions	93
4.7	Implications for practice and research.....	95
4.8	Appendix	96
Chapter 5 Perception of corporate sustainable activities and communication		101
5.1	Introduction	103
5.2	Literature Review	105
5.2.1	Corporate sustainable behavior	105
5.2.2	Perception of corporate behavior.....	106
5.2.3	Cultural impact	108
5.3	Theory and Hypotheses	108
5.4	Methodology	111
5.5	Results	112
5.5.1	Perception-based results	112
5.5.2	Characteristics-based results.....	121
5.6	Conclusion.....	124
5.7	Appendix	126
Chapter 6 Conclusions, limitations and implications		137

6.1	Conclusions	139
6.2	Limitations	142
6.3	Implications	143
6.3.1	Implications for research	143
6.3.2	Implications for practice	144
Bibliography		147
Annex	163	

List of tables

Table 2.1:	Demographic profile of respondents ($n = 989$).....	44
Table 3.1:	Mean value comparison for perceived responsibility between Germans and Spaniards.....	61
Table 3.2:	Mean value differences for responsibility among German consumers.....	61
Table 3.3:	Mean value differences for responsibility among Spanish consumers.....	62
Table 3.4:	Age and gender differences for German and Spanish respondents	64
Table 3.5:	Age and gender effects on individual responsibility for German and Spanish consumers.....	66
Table 3.6:	Summary of hypotheses	68
Table 3.7:	Mean value comparison for importance of individual responsibility	71
Table 3.8:	Independent samples test for the importance of individual responsibility.....	71
Table 3.9:	<i>T</i> -test for individual responsibility differences between German and Spanish sample	72
Table 3.10:	Descriptive results for age differences regarding individual responsibility in Spanish sample.....	73
Table 3.11:	ANOVA results for age effect on Spanish respondents.....	74
Table 3.12:	ANOVA results for age effect on German respondents	74
Table 3.13:	Descriptive results for age differences regarding individual responsibility in German sample	75
Table 3.14:	Descriptive results for gender differences regarding individual responsibility in Spanish sample.....	76
Table 3.15:	ANOVA results for gender effect on Spanish respondents	77
Table 3.16:	ANOVA results for gender effect on German respondents	77
Table 3.17:	Descriptive results for gender differences regarding individual responsibility in German sample	78
Table 4.1:	Remaining items after confirmatory factor analysis	89
Table 4.2:	Fit indices for SEM.....	90
Table 4.3:	Standardized Coefficients for the SEM	90
Table 4.4:	Summary of hypotheses	91

Table 4.5:	Mean value comparison of perceived availability and visibility	92
Table 4.6:	Independent samples test for perceived product offer between German and Spanish respondents	96
Table 4.7:	Regression weights for German respondents.....	97
Table 4.8:	Regression weights for Spanish respondents	98
Table 4.9:	Model fit summary for German sample.....	99
Table 4.10:	Model fit summary for Spanish sample	99
Table 5.1:	Mean value comparison for perceived corporate behavior between German and Spanish respondents	113
Table 5.2:	Age and gender effects for perceived corporate behavior on German and Spanish respondents	117
Table 5.3:	Summary of hypotheses	118
Table 5.4:	Descriptive results for gender differences regarding corporate behavior in Spanish sample.....	126
Table 5.5:	ANOVA results for gender effect on Spanish respondents	127
Table 5.6:	Descriptive results for gender differences regarding corporate behavior in German sample	128
Table 5.7:	ANOVA results for gender effect on German respondents	129
Table 5.8:	Descriptive results for age differences regarding corporate behavior in Spanish sample.....	130
Table 5.9:	ANOVA results for age effect on Spanish respondents.....	131
Table 5.10:	Descriptive results for age differences regarding corporate behavior in German sample	132
Table 5.11:	ANOVA results for age effect on German respondents	133
Table 5.12:	Gains for nodes for Spanish model.....	135
Table 5.13:	Classification for Spanish model	135
Table 5.14:	Gains for nodes for German model.....	135
Table 5.15:	Classification for German model	136
Table 5.16:	Gains for nodes for cross-national model	136
Table 5.17:	Classification for cross-national model.....	136

List of figures

Figure 1.1: Dissertation scheme	21
Figure 2.1: Three pillars of sustainability.....	28
Figure 2.2: Cultural impact on environmental motive concerns	36
Figure 2.3: Survey questions in Structural Equation Model	43
Figure 2.4: Designed SEM for environmental motives driving sustainable consumption....	46
Figure 3.1: Perceived responsibility by German and Spanish respondents.....	63
Figure 3.2: Age effects on perceived individual responsibility for Germans.....	64
Figure 3.3: Gender effect on individual responsibility for Germans and Spaniards	65
Figure 3.4: Effects of corporate information	67
Figure 4.1: Importance of environmental issues to Germans and Spanish	88
Figure 4.2: Perceived sustainable product offer by German and Spanish respondents.....	93
Figure 4.3: Structural equation model for German respondents	97
Figure 4.4: Structural equation model for Spanish respondents.....	98
Figure 5.1: Perceived corporate activities and communication by German and Spanish respondents.....	114
Figure 5.2: Gender effects for perceived corporate behavior on German respondents.....	114
Figure 5.3: Gender effects for perceived corporate behavior on Spanish respondents	115
Figure 5.4: Mean value distribution for relation between age and perceived corporate sustainability among Spanish respondents.....	119
Figure 5.5: Mean value distribution for relation between age and perceived corporate sustainability among German respondents	120
Figure 5.6: Characteristics of Spanish respondents willing to pay a higher price.....	122
Figure 5.7: Characteristics of German respondents willing to pay a higher price	123
Figure 5.8: Cross-national CHAID model for consumer being willing to pay more for sustainability	134

Chapter 1

Introduction

This thesis empirically examines the consumers' attitude towards environmental issues and their perception of corporate sustainability. The objective is to find out how companies respond to the consumers' sensitiveness towards environmental sustainable issues in Germany and in Spain. Based upon an online questionnaire which was responded to by German ($n = 486$) and Spanish ($n = 503$) consumers, we determine the consumer's perception and attitude towards environmental sustainability. Within three studies, consumers' responsibility towards the environment, environmental motives leading to sustainable consumption, and the perception of corporate sustainable behavior are measured. In the first study, results about individual responsibility shall indicate the consumer's level of sensitiveness in regards to environmental issues. In the second study, environmental motive concerns define consumer sensitiveness in more detail by explaining why consumers buy sustainable products. In the third study, corporate behavior is measured by the means of corporate activities and communication in order to find out if the companies respond to the consumers' sensitiveness appropriately. Results of the three studies are supposed to shed light on cultural differences in regards to the sustainability situation in Germany and in Spain.

The importance of environmental protection is steadily increasing due to the consumer's growing concern about the environment. According to Ajzen (1991), consumers are likely to adapt their consumption habits to their concerns. As a consequence, most large European companies and retailers implement actions to protect the environment. Besides addressing consumers, companies further need to comply with the requirements of further stakeholders such as environmental organizations, non-governmental organizations (NGOs), competitors, retailers and distributors. From the company's point of view, consumers are considered to be very important stakeholders as they are the resource upon which the success of a company depends. Knowing about the consumer's growing concern about environmental issues, companies try to make the consumer aware of their

sustainable activities as their intention is to build corporate image and strengthen stakeholder-company relations (Du et al, 2010). The possibilities companies have in order to imply environmental sustainable behavior are manifold such as optimized transportation and logistics networks or environmentally compatible production processes. However, marketers must ensure that the company's sustainable activities are perceived by the environment, in order to achieve a better corporate image (Kroeber-Riel, 2009).

Consumers need to perceive the sustainable action of a company but it is also important whether they perceive positive or negative corporate behavior as it influences their consumer behavior and purchase decision. Besides the opportunities corporate sustainable communication offers, it can also cause reputational risks (Ashforth and Gibbs, 1989; Dawkins, 2004; Morsing and Schultz, 2006; Arvidsson, 2010) because although stakeholders require more information about corporate sustainable activities, they are also quickly exhausted when companies promote their sustainability efforts too aggressively (Du et al, 2010). Consumer perception pertains to how individuals form opinions about companies and the merchandise they offer through the purchase they make. Therefore, consumer perception is also related to perceived consumer effectiveness. Perceived consumer effectiveness examines the extent to which the consumer has an impact on the environment. Findings suggest that a high level of perceived consumer effectiveness leads to a greater environmental consumer behavior (Roberts, 1996; Kinnear et al., 1974; Tucker, 1980). Webster (1975) defines the socially conscious consumer as someone who takes into account the public consequences of his or her private consumption or who attempts to use his or her purchasing to bring about social change. Solomon et al. (2010, p. 17) use the term "political consumer" and define him or her as "a consumer who expresses their political and ethical viewpoints by selecting and avoiding products from companies which are antithetical." Responsible consumers are of special interest to companies as their perceptions influence consumer behavior (De Pelsmacker and Janssens, 2007; Mohr and Webb, 2005). Consumer behavior

or perception can vary among cultures as environmental awareness, product communication, and market size are influential factors for instance.

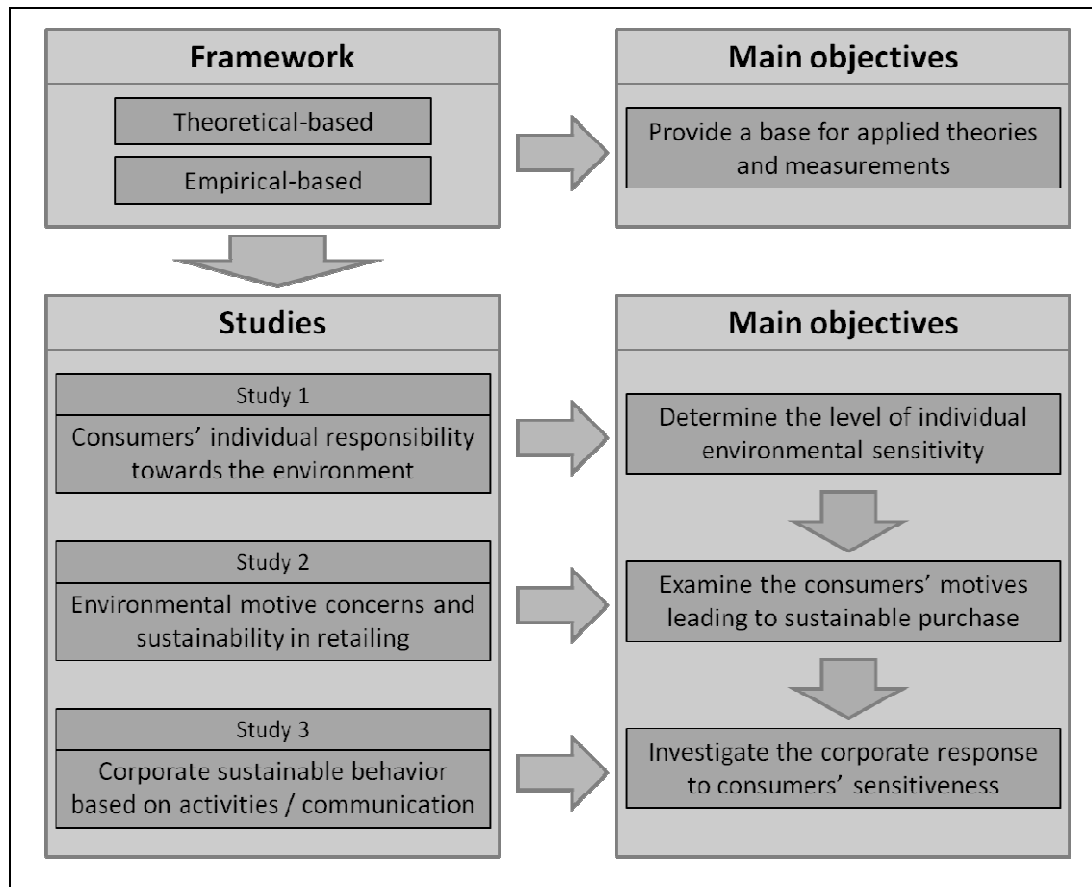
The analysis of two different culturally influenced countries is promising as “culture” is proven to be a distinct variable, influencing product purchase (Blackwell et al., 2001). Previous studies have proven that consumer values and behavior even varies among European countries (De Mooij and Hofstede, 2001). Therefore, multinational companies must be sensitive to local consumer needs and selected market conditions (Keillor et al., 2001; Hyllegard et al., 2005). Within Europe, Germany and Spain represent two different culturally influenced countries according to the five national culture dimensions established by Hofstede (1980). Taking the *individualistic* dimension as an example, Hofstede characterizes the German society as truly individualistic, focusing on personal achievement, whereas Spain, in comparison with the rest of the European countries (except for Portugal) is described as a collectivist country, focusing on the achievement of the group. Germany and Spain also differ strongly in regards to the *power distance* dimension as the German society is supported by a strong middle class, whereas Spain is characterized by a hierarchical distance between individuals. Such and further characteristics have impact on the consumers’ value systems, which are strongly rooted in history and which seem to be very resistant to change (DeMooij and Hofstede, 2002). These value systems influence the consumers’ sensitiveness towards environmentally sustainable issues which in turn influences consumer behavior. Due to the different culturally determined consumer requirements, we also expect unlike developed sustainability markets between Germany and Spain. Indeed, several prior studies confirm that the Spanish sustainable market has been adjudged to be less developed compared to Middle or Northern European countries such as Germany (Carrero et al., 2010; Papaoikonomou et al., 2011). These studies support Polonsky et al. (2001) who found that Southern European countries do not exhibit the sustainable characteristics of the Northern countries, describing Southern countries as “less”

developed in regards to environmental issues. This cross-cultural comparison is an extension to previous studies comparing consumers' attitudes between Southern and Northern European countries. With this thesis, I follow the requirements of Hyllegart et al. (2005), suggesting that more research on cultural differences in consumer perceptions and behavior is needed.

The second chapter of this thesis provides a framework of existing literature in regards to prior theoretical findings and empirical measurements (see Figure 1.1). It is supposed to define sustainability in a first place and to clarify the differences between sustainability and Corporate Social responsibility. Derived from this, the term sustainable consumption is defined and explained in more detail. In the following, a concept of consumer perception is explained, taking into consideration conscious and unconscious perception and their practical implications. Moreover, a framework of the environmental motive concerns and the cultural impact on sustainable behavior is explained. The empirical part is composed by the explanation and procedure of questionnaire and the statistical measurements being used throughout the thesis in order to achieve the results. In general, the second chapter is meant to form a base for the literature reviews and measurement techniques within the chapters, which isolate several aspects and further specify them.

The third chapter focuses on the consumer's responsibility towards the environment. By the use of in-country and cross-country mean value comparisons, the consumers' perception of individual responsibility is measured, comparing consumer responsibility to the responsibility of government policies, science, companies, and NGOs. The analysis aims to detect a varying responsibility among the analyzed consumer groups which would indicate a different level of environmental sensitiveness. Germans, women and middle-aged consumers are predicted to be more sensitive and to exhibit a higher level of perceived individual responsibility.

Figure 1.1: Dissertation scheme



The fourth chapter aims to specify the consumers' environmental sensitiveness in more detail through an analysis of the consumers' motives leading to sustainable consumption. In addition, we want to find out how the consumer perceives the environmental sustainable product offer in retail stores. By the use of structural equation modeling, we measure how environmental motive concerns such as the altruistic, the egoistic and the biospheric motive influence sustainable consumption behavior. Through the use of mean value comparisons, we further analyze how consumers in Germany and in Spain perceive the sustainable product offer in retail stores. Results aim to indicate a different level of the German and the Spanish sustainable product market. However, consumers of both cultures are predicted to be led by the same motives, when making sustainable purchases.

The fifth chapter focuses on how companies respond to the consumers' environmental sensitiveness through an analysis of perceived corporate sustainable behavior. By means of mean value comparisons, we analyze the effects of corporate activities and corporate communication on consumers in Germany and in Spain. Using a decision tree technique, we further detect more characteristics of consumers who support corporate sustainable behavior by paying more for sustainable products. Results aim to indicate the corporate sustainability level in Germany and in Spain. A greater sustainable effort by companies is predicted to exist in Germany as we expect more advanced requirements from the consumers towards the companies which in turn lead to a greater corporate sustainability.

This thesis is supposed to shed light on the corporate response at the consumers' environmental sensitiveness. Consumers' motives will indicate the companies, what kind of aspects they need to focus on in order to raise the consumers' attention and awareness. The perception level of product offer and corporate behavior will give advice about the level of corporate sustainability in Germany and in Spain and might indicate approaches to an improvement of the situations. Furthermore, environmentally conscious consumers and consumers being willing to pay more for sustainability are supposed to be identified, considering nationality, age and gender to be influential factors. Results shall offer a complete profile of the consumer's attitude and perception towards sustainability in Germany and in Spain, indicating the level of responsibility in both countries. Findings aim to help especially multinational companies to improve their information system, segment their customer base and define their marketing strategy. Results of this thesis are of special interest to German and Spanish companies which announced their expansion plans to increase their presence in Europe, such as the apparel companies Inditex and Cortefiel on the Spanish side (de Teran, 2001) and retailer chains such as Aldi and Lidl on the German side.

Chapter 2

Theoretical and empirical framework

Theoretical-based framework

This part provides a framework of existing literature in regards to prior theoretical findings, on which our three empirical investigations are based on. The theoretical framework is divided into two main parts, treating the sustainability aspect and the consumer behavior aspect. First, sustainability is defined and described and distinguished from corporate social responsibility. Based on this, an explanation of “sustainable consumption” is provided. Second, the consumer behavior approach is divided into consumer perception, environmental consumer motives, and the impact of culture on sustainable behavior, whereas consumer perception again is divided into conscious and unconscious perception, and into practical implications. In a first place, the framework aims to give an understanding of the meaning of sustainability and its importance in practice. Through a special focus on consumer perception, literature about consumer behavior explains how consumers behave under certain circumstances in a second place. The framework is meant to form a base for the literature reviews within the three studies, which isolate several aspects and further specify them.

2.1 Sustainability and Corporate Social Responsibility

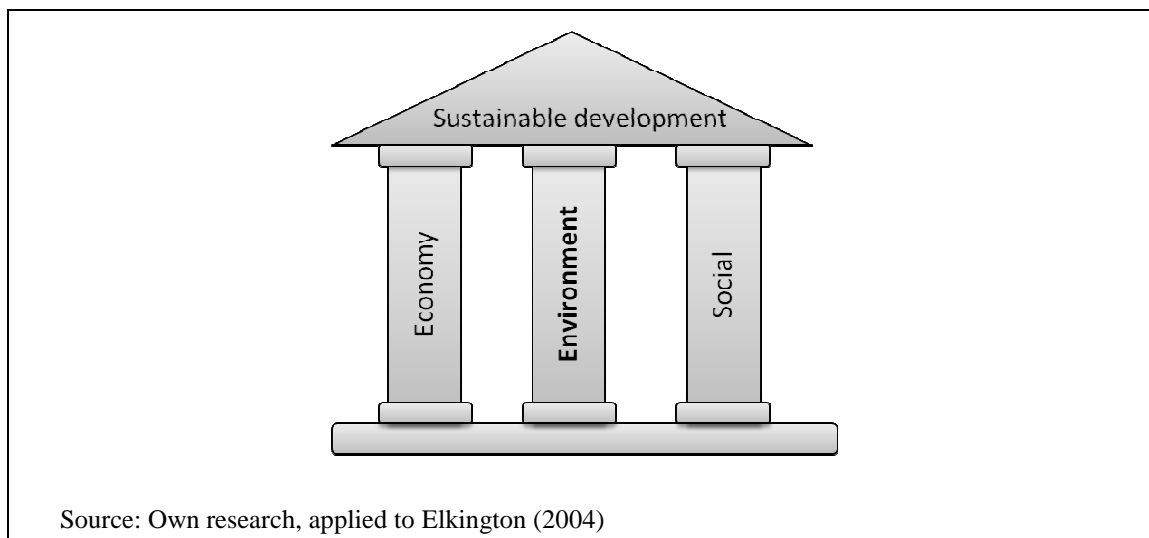
“Sustainability” and “corporate social responsibility” are often used as synonymous terms in literature but in reality they have different meanings.

2.1.1 Defining Sustainability

In the current literature, several sustainability definitions appear often using differing terminology and sometimes overlapping in their meanings (Wiese et al., 2012). Sustainability was originally defined 1987 by the “World Commission on Environment and Development” (WCED) as follows: “Sustainable development meets the needs of the present without compromising the ability of future

generations to meet their own needs.” In other words: meeting the needs of people today without risking the development opportunities and the choice of lifestyle of future generations. Even before the term “sustainability” was only used in forestry, implying that a forester is only allowed to cut as many trees as long as the existence of the forest is not threatened. The forestry needs to ensure that this generation and future ones are able to continue to benefit from the same forest. Today, sustainability allows its application to almost every field of activity. Applied to economics, the principle of sustainability implies that economic behavior can only happen with respect for nature and individuals. Sustainability can be seen in terms of balancing economic, ecological and social goals and consequences.

Figure 2.1: Three pillars of sustainability



This is also known as the ‘Triple Bottom line’ approach (Gladwin et al., 1995; Elkington, 2004). Goldsmith and Goldsmith (2011) define sustainability as “every day practices, multiplied across the 6.4 billion people in the world that impact the air, water and earth”, focusing only on the ecological pillar of sustainability (see Figure 2.1). In their cross-national study, comparing multinational corporations in the U.S. and in Europe regarding their sustainable

behavior, Hartmann et al. (2007) conclude that a common understanding of sustainability does not exist, and that companies use the term with wide-reaching meanings. This thesis is based on the ecological aspect of sustainability, supporting Hawken (1993) who defines sustainability as an environment-centric platform on which trade can be conducted as long as natural capacities are not reduced in order to protect future generations. In consequence, although only focusing on the environmental aspect, the term “sustainability” is used throughout this thesis

2.1.2 Sustainability versus Corporate Social Responsibility

Corporate Social Responsibility (CSR) pertains to the behavior of companies and refers to their responsibility towards the society. CSR includes the aspects of sustainability and focuses on the three pillars economics, social action and environment. CSR-initiatives are part of the business activities in order to contribute to a future-viable society. They are mostly voluntary and based on their own initiatives. Cross-national studies of CSR have been realized between various countries and remarkable differences have been detected between the countries. This could be explained by the different techniques of communication companies use to describe their involvement in the society (Matten and Moon, 2008).

2.1.3 Sustainable consumption

In order to identify the sustainable consumer based on previous literature, it needs to be clarified what sustainable consumption really means. According to McDonald et al. (2006, p. 516) “every time someone makes a decision about whether (or not) to purchase a product or service there is the potential for that decision to contribute to a more or less sustainable pattern of consumption. Each purchase has ethical, resource, waste, and community implications.” The consumer navigates with his purchase corporate behavior. Consumers are often willing to reward companies for their sustainable behavior and pay more for

environmental friendly products (Creyer and Ross, 1997; Trudel and Cotte, 2000; Carvalho et al., 2010). Many consumers would even pay higher prices and penalize companies, behaving unethical and offering eco-unfriendly products to a lower price. Summarizing numerous studies about consumers and their attitude towards sustainable behavior, Laroche (2001) stated already twelve years ago an increasing number of individuals who are willing to pay more for environmental friendly products. For instance Coddington (1990) stated in 1989 that 67 percent of the Americans were willing to pay 5-10 percent more for ecologically compatible products. Suchard and Polonsky (1991) found that by 1991, environmentally conscious consumers were willing to pay 15-20 percent more for environmental friendly products. Measuring the perception of the packaging of clothes detergents in a mail survey sent to female consumers in the UK, Myburgh-Louw and O'Shaughnessy (1994) found out that 79 percent of the respondents would pay up to 40 percent more for a product with sustainable attributes. However, previous studies also confirm that corporate sustainable behavior is not the most important criteria in the purchase decision of the consumer, although many consumers express their willingness to support sustainable product offers. In reality consumers are more concerned about economic factors, such as price, quality, brand, and the shopping convenience, among others (Boulstridge and Carrigan, 2000). Shrum et al. (1995, p. 80) identify the green consumer as “a careful shopper, not prone to impulse buying, and pays attention to price”.

2.2 Consumer perception

2.2.1 Conscious Perception

Objective reality and perceived reality often differ from each other to a huge extent. In order to understand consumer behavior, before any quotation attribute, the expression subjectively perceived needs to be set: Not the product quality but the perceived quality, not the objectively reasonable price but the perceived

price, not the objectively environmental contribution but the perceived environmental contribution determine consumer behavior. The fundamental consequence for marketing is obvious. It is not enough to offer objective performances. It must also be ensured that these services be provided by the environment (Kroeber-Riel et al., 2009, p. 323).

Only those stimuli that generate attention are consciously perceived and efficiently processed. The grant of attention is therefore the first step to perceive stimuli. If a consumer looks for information to achieve consciously pursued goals, he turns his attention willingly to certain stimuli. Attention is also triggered automatically by the activation potential of a stimulus. The activation potential depends on the individual physical, cognitive and emotional features of a stimulus. For instance, stimuli have a higher activation potential if they address the emotion to a higher extent, if they are stronger and more intense and if they cause surprise to a consumer. Not only the activation potential is crucial for the attention or selective perception but also the direction and quality of the driving forces of the stimuli. Further factors like pleasant and unpleasant feelings and subjective effects of expectations, emotions and motives shape the process of perception. Numerous experiments demonstrate that the emotional and motivational meaning of a stimulus controls the selection and decoding of the stimuli (Kroeber-Riel et al., 2009, p. 324).

Irrelevant stimuli and stimuli which do not address existing emotions or needs are penalized in the perception. Pleasurable stimuli are preferred whereas unpleasant stimuli are avoided. In summary, the consumer perceives especially those stimuli, which fulfill their needs and desires. Thus, pleasurable stimuli primarily address the needs of the individual and are useful. The same also applies to unpleasant stimuli if they warn the consumer of a danger and if they contribute to the consumer's well-being. However, usually unpleasant stimuli are avoided, perceived worse and lead to bad evaluation (Williams and Aaker, 2002). Transferred to corporate social responsibility, Sen and Bhattacharya (2001)

found that a negative perception of CSR has stronger effects on the consumer than a positive perception. The perception of products and advertising material usually takes place in a few seconds.

The evaluation of a product forms part of consumer perception. Perception does not only include the decoding of the stimuli but also the mental processing until the evaluation of the perceived product. The evaluation is realized through an ordering and an evaluating of the available product information. Result of the product evaluation is the perceived quality of a product (Kroeber-Riel et al., 2009, p. 327)

2.2.2 Unconscious perception

In literature, different types of unconscious perception are discussed whereas “attention” can be named as the distinguishing factor (Behrens and Neumaier, 2004, p.12).

First, unconscious perception exists among stimuli that cannot even be consciously perceived when attention is directed to it (Behrens and Neumaier, 2004, p.12). These include very weak stimuli such as visual stimuli that are presented in just a few milliseconds. The term “subliminal perception” is used for stimuli whose intensity is not enough to be consciously perceived.

Second, unconscious perception also exists for stimuli which could be perceived consciously but will not be processed consciously, because the attention is not fully directed to the stimuli (Behrens and Neumaier, 2004, p.13). These include stimuli which are only perceived casually or which have to share the consumer’s attention with other stimuli (Shapiro and Krishnan, 2001). Examples are occurring stimuli in the peripheral field of vision such as banner advertising in football stadiums, divided attention to the radio program or radio advertising while driving, the unconscious perception of flavor or music while the consumer concentrates on visual stimuli in a store, etc. Given the fact that consumers only pay full attention to a small part of their environment

(approximately only ten percent of the available stimuli), the possible effects of casually perceived stimuli are of high relevance for behavioral marketing. Advertising can work even if consumers cannot remember the explicit advertising. While the consumer is reading a magazine, advertisements which are placed outside the consumer's perception focus are nonetheless perceived. The casually perceived advertising can impact on the attitude towards an advertisement and on the attitude towards a brand (Janiszewski, 1993).

2.2.3 Practical implications

In order to increase the probability of consumer perception of the responsibility aspect, it stands to reason that companies conduct emotionally aligned communication campaigns (whether in form of product packaging or advertising) and a high level of communication intensity. Emotional response pathways can possibly further be provoked through the addition of the word "responsibility" (Swoboda and Löwenberg, 2009) or the word "nature" (Kroeber-Riel et al., 2009, p. 705) as they evoke positive associations, whereas the word "environment" evokes more negative associations. This can be reinforced by the predisposition of the consumer if he or she is conscious of environmental issues despite general habitualization. Predetermined attitudes towards the environment and motivations can strengthen emotional effects (Swoboda and Löwenberg, 2009).

2.3 Environmental motive concerns

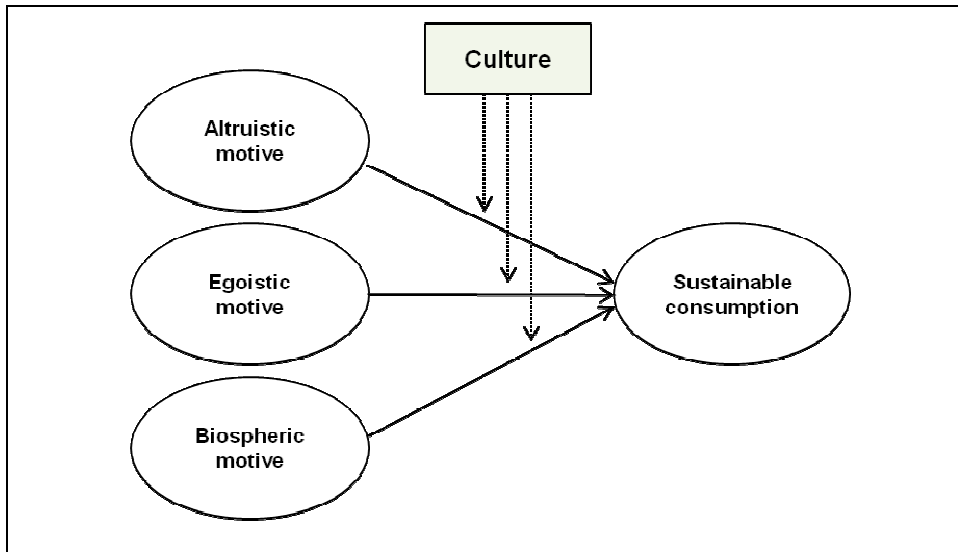
Altruism is one motive for sustainable consumption, as people behave in an altruistic manner because environmental quality is a public good (Heberlein, 1972). Schwartz's theory develops this approach and mentions that "*altruistic (including pro-environmental) behavior occurs in response to personal moral norms that are activated in individuals who believe that particular conditions pose threats to others and that actions they could initiate could avert those*

consequences.” Numerous theories see values as the basis of environmentalism. Inglehart (1990) suggests that it is an expression of “post-materialist” values of quality of life and self-expression that emerge as a result of increasing affluence and security in the developed countries.

Literature distinguishes between three principal motives or values, which drive the behavior of the sustainable consumer. Expanding Schwartz’s (1977) norm-activation model of altruism, Stern et al. (1993) argue that environmental moral norms could be activated by altruistic values as well as by egoistic or biospheric values. They present a tripartite classification of value orientations toward sustainable behavior. According to them, *“altruistic values predispose people to judge environmental issues on the basis of costs or benefits for a human group (e.g., community, ethnic group, or all humanity). In contrast, people who apply egoistic values judge environmental issues on personal basis.”* People with egoistic environmental attitudes are concerned about the environment, but their concern is at a personal level. For example, those who hold egoistic environmental attitudes would be concerned about air pollution because of the effects it may have on their health (Schultz et al., 2005). In the biospheric value orientation, people judge environmental issues on the basis of costs or benefits to ecosystems. According to this theory, therefore, “three distinct value orientations, toward self, other human beings and other species and the biosphere, can be distinguished and that each can independently influence intentions to act politically to preserve the environment” (Stern et al., 1993). However, the altruistic, the egoistic and the biospheric concept do not have to be seen independent from each other as individual sustainable behavior usually consists of a combination of these three approaches (Stern et al., 1993). In all three cases, people are concerned about the environment but each concept is based on different underlying values. The approaches of Stern et al. (1993) and Schwartz (1977) agree that concrete behavior depends on the expected consequences. People who assume that their behavior impacts on nature (biosphere), on themselves (egoistic) or on other people (altruistic) will change

their behavior. Prior cross-national studies proved, that culture or nationality influence environmental motive concerns (see Figure 2.2).

Figure 2.2: Cultural impact on environmental motive concerns



2.4 The cultural impact on sustainable behavior

Culture has been defined in many ways in previous literature. A common definition runs as follows: “Culture consists in patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values” (Kluckhohn, 1951, p. 86).

The most widely used approach in marketing research to operationalize culture is the approach from Hofstede (2001). With the purpose to capture cultural differences, Hofstede interviewed a total of 116,000 IBM employees in 50 countries during four years. As many further studies prove, cultural aspects of consumer behavior can be explained with this study.

Some of the general theories about the psychological or sociological influences on consumer behavior may apply to all Europeans. Nevertheless, generalizing the European consumer might be difficult as there are vast cultural

differences. Still, consumers reveal certain similarities in behavior across national borders. The European consumers live under different economic and political circumstances (Solomon et al., 2010). Therefore we must expect different sustainable consumer behaviors between the German and the Spanish society and also different motives driving them. Papaoikonomou et al. (2011), for example, found out that in contrast to Northern European countries, the Spanish ethical market is still in the early phase of development. Comparing themselves to other countries such as Germany or the U.S. Spanish people are surprised by the variety of ethical products on their markets. They even look for certain products abroad because there is not enough supply of sustainable products on their local market. According to several research results, Spain is perceived as one of the low gear ethical markets when compared to Northern European countries.

Without knowing about the cultural circumstances, it is difficult to understand consumer behavior, reflected through consumption. Authors do not agree on the synonymous use of “nationality and “culture”. Donthu and Yoo (1998) state, that culture is not synonymous with country, even though country has been used as a surrogate for culture in many cross-cultural studies. A synonymous use might lead to problems, because within-country heterogeneity may be stronger than between-culture heterogeneity (Hofstede, 1980; Samiee and Jeong, 1994). There is empirical support for between-country differences, which is why caution is recommended in using this approach (Hofstede 1980). In contrast, Soares (2007) uses nationality to reflect culture. Nation can be used as a proxy for culture since members of a nation tend to share a similar language, history, religion, understanding of institutional systems, and a sense of identity (Hofstede, 1980; Dawar and Parker, 1994), making its use a common approach to operationalize culture (Steenkamp et al., 1999; Yenyurt and Townsend, 2003). Culture is the accumulation of shared meanings, norms and traditions among the members of an organization or society. It is what defines a human community, its individuals its social organizations, as well as its economic and political systems.

It includes values and ethics but also material objects and services, such as cars, clothing, food, art and sports that are produced or valued by a group of people. Culture is the overall system within which other systems are organized. The effects of culture on consumer behavior are so powerful and far-reaching that this importance is sometimes difficult to grasp or appreciate (Solomon et al., 2010). Furthermore, studies also show that not only environmental behavior but also environmental consumerism differ between different cultures (Deng et. al., 2006; Milfont et al., 2006).

In answer to the questions about the definition and importance of culture, cultural psychologists have argued both that culture matters to the extent that individuals living in different societies are likely to have differing experiences and, more ambitiously, that culture matters to the extent that a cultural perspective provides new insights into psychological processes (Oyserman and Lee, 2008). Furthermore, in their empirical investigation of diffusion models, Farley and Lehmann (1994) found out that different cultural settings produce highly visible differences in consumer behavior.

Empirical-based framework

The empirical part is divided into two parts as it is composed by the explanation and procedure of questionnaire and the statistical measurements being used throughout the thesis in order to achieve our results. First, the questionnaire we used is described, its technique, its composition and its return. Second, several measurements are demonstrated which are used in our studies to measure demographic effects on consumers' motives and perception. In general, the empirical-based framework is meant to form a base for the analyses and measurement techniques we used in the studies.

2.5 Questionnaire

This thesis is mainly based on an online-questionnaire, addressed to German and Spanish consumers during the period between November and December 2011. In total 989 usable questionnaires were returned; 503 from Spain and 486 from Germany.

2.5.1 Technique

First, an online-based questionnaire about the consumer's attitude towards sustainability was designed during September 2011 via limesurvey v.1.91, based on previous articles and questionnaires related to sustainability issues and CSR. By the use of the back-translation process, the questionnaire was first created in German, then translated to Spanish and then back translated into German, in order to see whether the two German versions were congruent. Congruent versions of the survey in both languages guarantee the quality of the questionnaire (Brislin, 1970).

In a second step, within a scope of a pre-test, we sent 25 questionnaires in paper to family and friends in October 2011. The purpose of the pre-test was the comprehensibility of the questions and the approximate needed time to answer the whole questionnaire. Our scope was to create a short informative questionnaire, being answered between five and ten minutes in order to achieve reliable results. By experience, respondents often lose concentration after a short period of time, when answering online questionnaires. We also ran the pre-test in order to test the item sets in a confirmatory factor analysis as recommended in previous literature (e.g. Diekmann, 2004). Respondents mainly criticized less understandable questions, the repetition of a few questions, and in two cases confusing negations of statements within two items. After several modifications, we spread another ten questionnaires in a second pretest leading to a few last modifications. In a third step, the questionnaire was sent to consumers in Germany and Spain and data were collected during a period of two months between the 1st of November and 31st of December 2011. Since it appears

difficult to determine representative size of both populations, we decided on collecting data with a period of two months with the objective to achieve more or less 500 questionnaire returns in both countries.

We mainly posted the link on consumer platforms and further spread the link via email and social networks such as facebook and twitter. The way of choosing our data was a mixture between a probability sampling and a quota sampling as we only influenced the selection of the respondents by trying to represent the gender balance of the Spanish and the German population. Gender quotes were based on the latest census of both countries accomplished by the German and the Spanish Institute of Statistics (Statistisches Bundesamt (DeStatis), 2011; Instituto Nacional de Estadística (INE), 2011). Although we addressed consumers of different aging groups in both countries, the realization of a combined quota sampling with the additional age factor seemed to be difficult taking into consideration that the survey was exclusively online-based.

The responses were evaluated on a seven-point Likert-type scale ranging from strongly disagree (1) to strongly agree (7). There are an odd number of categories, with an ambiguous middle category which may represent undecided, viewlessly or medium attitude. By choosing a seven-point Likert scale, we avoid forcing the respondent to express a positive or negative what would happen if we had chosen a scale with an even number of categories (Likert, 1932; Diekmann, 2004). While choosing the more common five-point Likert scale ((1) not important at all, (2) slightly important, (3) undecided, (4) important and (5) extremely important) for the more general two opening questions, the technique was refined in the following by differentiating between seven categories in order to achieve a higher reliability to achieve a better differentiation between similar items (Alwin, 1992).

2.5.2 Composition

The questionnaire is divided into eleven questions being classified into six different parts. As required in empirical literature, the questionnaire begins with a more general “warming up” question (e.g. Diekmann, 2004, p. 414) leading to the issue “sustainability” in order to raise the respondents interest. The most important questions are placed in the second third of the questionnaire as the respondent’s attention usually first increases before decreasing with the continuous duration of the questionnaire (Scheuch, 1973). By the use of this method, there is a greater probability of a serious contesting of our key questions.

The first part of the questionnaire deals with the importance of sustainable issues for the respondents and includes the first five questions. The reply to the first question “*How important are environmental issues to you personally?*” is decisive about whether respondents were included in the motive-based analysis, measuring environmental motives driving sustainable consumption. Respondents who perceived environmental issues as “not important at all” or “not important” were not included in the analysis, as their consumption-driving environmental motives are of no interest. Respondents were not filtered in further investigation such as the perception-based analysis, as the sustainable perception of low involved consumers exhibits the same importance to companies as the sustainable perception of highly involved consumers. The first part of the questionnaire further includes the second question: “*How important do you think is individual behavior for the impact on the environment?*” and the third question: “*In your opinion, who is responsible for sustainability to what extent?*” These questions are supposed to shed light on the respondent’s importance of sustainable issues and the estimation of the individual impact on the environment.

The second part only includes the fourth question “*What are sustainable products in your opinion?*” in order to understand, what respondents understand

as sustainable products. Respondents had to evaluate the statements about *recycling, packaging, material, pollution, and water / energy saving*.

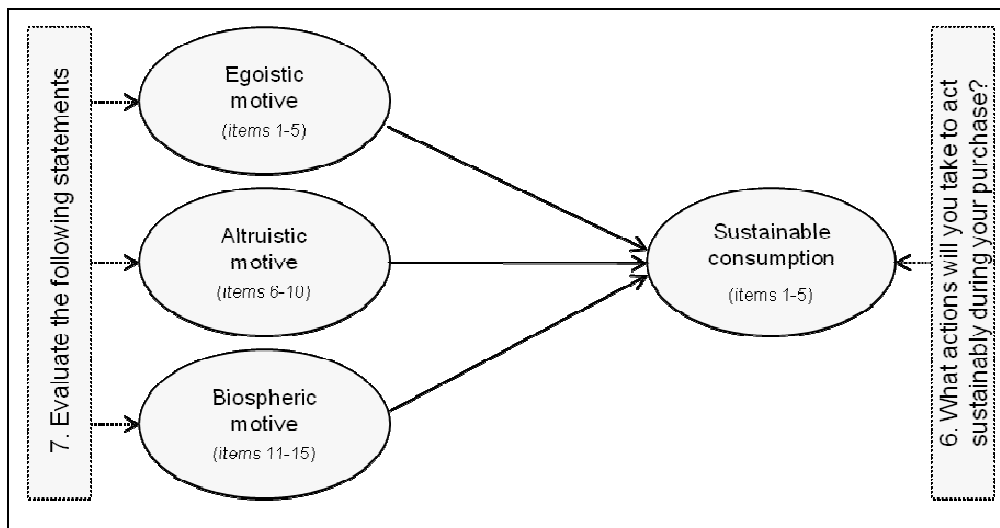
The third part is related to the purchasing process and includes the fifth and the sixth question. In the fifth question, “*How important are the following aspects when making a decision on what products to buy?*” respondents are supposed to evaluate the importance of the aspects *environmental impact, price, quality and product brand*. Thus, the importance of the environmental impact can be set in direct comparison to the other important aspects influencing the purchase decision. This question is based amongst others on Boulstridge and Carrigan (2000) who quoted that environmental responsibility is not the most important standard in the consumer’s purchasing process. They rather believe that economic factors such as price, quality and brand bestride purchasing decisions. I review this statement by setting the importance of environmental impact in direct comparison to the important influencing factors in the purchasing decision. In the sixth question “*What actions will you take to act sustainably during your purchase?*” respondents have to evaluate the items *paying a higher prize, purchase of products without packaging, purchase of locally produced products, purchase in organic stores and avoiding the purchase of eco-unfriendly products*. The five items within this question require information about the respondent’s willingness to act sustainable during the purchase process. This question forms part of the structural equation modeling as it represents the construct of sustainable consumption (see

Figure 2.3).

The fourth part consists only of the seventh question: *How would you estimate the following statements?*. It is sought to give advice about the motives which lead the consumer to sustainable consumption. The first block of items shall represent the egoistic motive evaluating the aspects *prestige, personal freedom, money saving, personal health and job risk*. The second block is supposed to represent the altruistic motive concern, as respondents have to

evaluate the items *future generations, public health, personal impact, quality of life, general benefit*. The third block includes the items *sustainable behavior, balance of nature, flora and fauna, earth's climate and local pollution* and is supposed to represent the biospheric motive concern. The items are mainly based on a prior study of Stern et al. (1993), analyzing consumers' value orientations. However, in their study all items were based on a 4-point Likert scale with categories strongly disagree, disagree, agree and strongly agree.

Figure 2.3: Survey questions in Structural Equation Model



The fifth part of the questionnaire is related to the consumer's perceived corporate behavior and consists of the eighth, the ninth and the tenth question. In the eighth question: *How do you estimate the sustainable behavior of the companies in your country?*, respondents have to evaluate their perceived communication (*quality, frequency, presentation and credibility*), perceived availability (*visibility, product range, store quantity and circumstances*) as well as perceived quality and prize (*acceptable prize, average prize, adaption, high quality and high standard*). In the ninth question respondents were asked *how they estimate the sustainable behavior of the companies in their country* requiring information about *environmental protection, advertisement, product information, environmental pollution, product range and sustainable*

development. This question was established to form a general image of corporate sustainable behavior, as it includes questions of all kinds. In the tenth question, respondents were required to name three companies in their country they would consider to be sustainable. There is not much importance attached to this question but still it could shed light on the branch being considered as most responsible.

The sixth and last part includes questions about socio-demographic information such as gender, age, size of household, level of education, residence and nationality. Socio-demographic details are required at the end of the questionnaire because they are less interesting to the respondent and they do not require any further concentration (Diekmann, 2004).

2.5.3 Return

In total 989 usable questionnaires were returned; 503 from Spain and 486 from Germany (see Table 2.1). Among the Spanish consumers, males composed 53.9 percent ($n = 271$) and females composed 46.1 percent ($n = 232$). Respondents' ages ranged from 18 to 72 years ($m = 39.8$). Among the German consumers males composed 46.5 percent ($n = 226$) and females composed 53.5 percent ($n = 260$). Respondents' ages ranged from 18 to 78 years ($m = 32.1$). Both samples represent approximately the gender balance of the Spanish and the German population according to the latest census of both countries accomplished by the German and the Spanish Institute of Statistics (Statistisches Bundesamt (DeStatis), 2011; Instituto Nacional de Estadística (INE), 2011).

Table 2.1: Demographic profile of respondents ($n = 989$)

Demographic profile	Germany	Spain
Gender		
Male	226 (46.5 %)	271 (53.9%)
Female	260 (53.5%)	232 (46.1%)
Age		

18-25	123 (25.3%)	22 (4.4%)
26-34	209 (43.0%)	140 (27.8%)
35-49	89 (18.3%)	246 (48.9%)
50 or over	65 (13.4%)	95 (18.9%)
Education		
Highschool degree	70 (14.40%)	36 (7.16%)
Apprenticeship	61 (12.55%)	13 (2.58%)
University Degree	345 (70.99%)	445 (88.47%)
Other	10 (2.06%)	9 (1.79%)
Household		
People	2.44	3.11
People < 18	0.28	0.71

2.6 Measures

2.6.1 Structural Equation Modeling

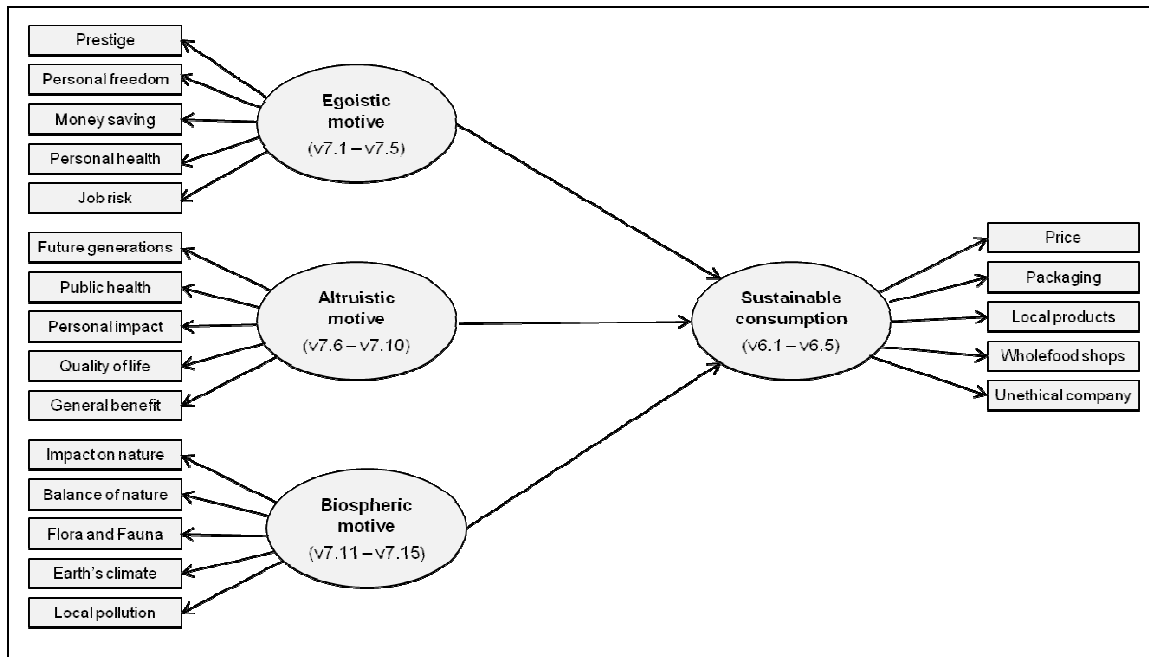
Structural equation modeling is used in this thesis in order to distinguish between the environmental motive concerns and in order to measure their influence on sustainable consumption.

Structural equation models are of tremendous importance in science as they are a standard tool for empirical hypothesis testing systems. The analysis is used to measure the relationships between hypothetical constructs, also called latent variables. Before the pure analysis of the relationship between the constructs in an appropriate measurement model an operationalization and a quality testing of the latent constructs needs to be realized in order to guarantee the quality of the model. Reliability and validity tests need to be realized for each latent construct in both countries as two separated structural equation models will be created for German and Spanish consumers.

If the measured items are non-reliable or imprecisely, constructs are not represented sufficiently which in turn affects the estimation of the model parameters in the structural model and thus the general fit of the model (Weiber, & Mühlhaus, 2009). Before any reliability and validity test, our structural

equation model includes all the items, representing egoistic, altruistic and biospheric motives, mainly based on Stern et al. (2003) (see Figure 2.4).

Figure 2.4: Designed SEM for environmental motives driving sustainable consumption



Several goodness of fit (GOF) indices are established to evaluate about the quality of structural equation modeling (SEM). McDonald and Ho (2002) reviewed 41 psychological studies in order to find how often these indices are found in current practice. Every study reported about the χ^2 value as well as about at least one GOF index. CFI or RNI is the most popular index and was used in 21 studies. This was followed by the root mean square error of approximation (RMSEA, in 20 studies), the goodness-of-fit index (GFI; in 15 studies), the Tucker-Lewis index or non normal fit index (TLI and NNFI, in 13 studies), and the normed fit index (NFI, in 9 studies). Usually more than one GOF index is mentioned per study to confirm the quality of the model. On a scale between 0 and 1 for RNI, CFI, GFI, TLI and NFI, values for acceptable fits are normally 0.9 or better, whereas a value of less than 0.05 is interpreted as good fit and less than 0.08 is interpreted as acceptable fit for RMSEA (Marsh et

al., 2005). Browne and Cudeck, (1993), Hair et al. (1998), and Schultz (2001) even interpret a RMSEA of less than 0.10 as an acceptable model fit.

2.6.2 Chi-square Automatic Interaction Detectors (CHAID)

Chi-square Automatic Interaction Detectors (CHAID) is a classification tree algorithm and has been developed for categorical variables (Kass, 1980). CHAID is used for the creation of decision trees and is a technique to split a group into separate segments, also called nodes. These nodes can also be seen as sub-populations. Through the splitting of the nodes, the variation of the response variable is minimized within the segments and maximized among the segments (Ramaswami and Bhaskaran, 2010). After the splitting of the group into two or more nodes, the splitting is repeated on each of the occurring nodes. These nodes can be divided again into two or more nodes. The splitting process for each node can be repeated until stopping rules avoid further dividing. Those stopping rules come into effect when there is only one object in the partition left or when the class value in the partition is same. The CHAID output is displayed in a hierarchical tree-structured form in which the root consists of analyzed sample and the segments in the below levels are the sub-populations.

In this thesis we use the CHAID analysis in order to identify the characteristics of the environmental sensitive consumer in a first place. In a second place, we try to characterize the consumer who is willing to pay a higher price for sustainable products. By using this method, we include all the variables being included in the questionnaire.

2.6.3 One-way Anova and Student's t-test

The analysis technique “one-way analysis of variance” (one-way ANOVA) is used to compare means of at least two samples and can only be used for numerical data (Tabachnick and Fidel, 2013). In this study the ANOVA analysis is used to measure the effects of demographic variables such as age and gender

on the consumer perceptions and to find significant or non-significant differences. The student's t-test is quite similar to the ANOVA analysis as it also measures differences and significance. The t-test is often used when the variances of the analyzed samples are unknown (Tabachnick and Fidel, 2013). By measuring differences within one population as for example within the Spanish sample, we use the paired-sample t-test, in order to see whether the measured items differ significantly from each other. For a cross-national comparison, we use the Independent samples t-test in order to measure significant differences between the groups.

Chapter 3

Perception of individual responsibility towards the environment¹

¹ This chapter is based on Stolz et al. (2012 a).

3.1 Introduction

This chapter focuses on the consumer's responsibility towards the environment. Consumers have become an important factor in regards to environmental issues as their purchasing behavior has a direct impact on many ecological problems (Laroche, 2001). Jackson (2005) believes that consumer behavior is the key to the impact that society has on the environment. Many consumers are not aware of this, as they feel that their efforts make little real effect. They expect companies to protect the environment and behave ethically and base their purchasing decisions on these activities (Mohr et al., 2001). In addition, government policies, Non-Governmental Organizations (NGOs) and science are perceived as responsible due to their direct or indirect impact on sustainable behavior.

However, consumers need to be aware of their own responsibility since all their purchases have an ethical, resource, waste and community impact. In other words, every time someone makes a purchase decision, there is the potential for that decision to a more or less responsible consumption contribution (McDonald et al., 2006). Carrigan and Attala (2001) proposed that consumers need to be convinced that their purchase behavior can make a difference in ethical terms. The so-called perceived consumer effectiveness has a significant impact on ethical consumption behavior (Roberts, 1996; Kinnear et al., 1974; Tucker, 1980) and indicates the level of environmental knowledge.

In a cross-national comparison, we analyze the consumer perception of individual responsibility in Germany and in Spain. Similar characteristics of the countries include unification through the European Union; Germany since 1952 and Spain since 1986. Despite sharing the European culture, both countries exhibit fundamental differences, which might influence people's perception of environmentally sustainable behavior. Germany has always tended to be a more industrialized country, whereas Spain always has been less industrialized. This is in line with Loxley (1998), who considered Northern countries to be more

industrialized than Southern countries. Besides, Wood suggests (1995) that there are important sustainable differences between highly industrialized countries of the North and less industrialized countries of the South. Polonsky et al. (2001) add that Southern European countries do not exhibit the sustainable characteristics of the Northern countries, describing Southern countries as “less” developed in regards to environmental issues. This cross-national comparison is an extension to previous studies comparing consumers’ attitudes between Southern and Northern European countries as it exhibits perceived responsibility, leading to consumer attitudes. However, the consumer’s sustainable behavior is not only influenced by culture but also by personal characteristics (Ralston et al., 2009). Thus, we also measure the effect of age and gender on personal responsibility. Our analysis is supposed to:

- (1) Indicate the level of responsibility among consumers.
- (2) Explore the impact of country on consumer’s responsibility.
- (3) Determine a demographic profile of the environmental consumer.

Our investigation is of special interest to companies who need to act environmentally responsible in order to be competitive on a national and international level due to the requirements of different stakeholders. Especially expanding European companies are addressed, who need to be sensitive to local consumer needs and selected market conditions (Hyllegard et al., 2005). The level of consumer responsibility is an indicator of the efficiency of company’s sustainable activities. Our analysis aims to detect a varying responsibility among the analyzed consumer groups and to uncover different levels of environmental knowledge. More information about the environmentally sensitive consumer helps companies improve their environmental profile, segment their customer base and define their marketing strategy.

This chapter is structured into five sections. The first section consists of the review of the literature on which this study is based. The second section consists of the methodological approach and research design. The third section presents

the results of the applied analysis. The fourth section consists of the discussion of our results with further interpretation. Finally, the last section concludes our findings, quotes the limitations of this study and reveals some important implications for research and practice.

3.2 Literature Review

3.2.1 Environmental sustainable behavior – A shared responsibility

Following Stern (2000, p. 408), we define environmental sustainable behavior as a behavior which “*can reasonably be defined by its impact: the extent to which it changes the availability of materials or energy from the environment or alters the structure and dynamics of ecosystems or the biosphere itself*” (Stern 2000, p. 408). This definition does not only refer to the consumer’s contribution to the environment but also to government policies, companies, NGOs and also science.

Consumers can contribute to the environment positively through the disposal of household waste or a careful use of water, directly impacting on the environment (Stern, Young and Druckman, 1992). The indirect behavior describes the context in which choices are made that directly cause environmental change (Rosa and Dietz, 1998). Behaviors that affect international development policies, product prices on world markets, as well as national environmental and tax policies would be considered as examples of indirect behavior. The impact of indirect behavior should not be underestimated and can have a greater environmental impact than direct environmental sustainable behavior. Jackson (2005) believes that consumer behavior is the key to the impact that society has on the environment. The actions that people take and the choices they make to consume sustainable products all have direct and indirect impacts on the environment, as well as on personal and collective well-being.

Companies have accepted their responsibility regarding the environment due to the varying environmental problems worldwide caused by corporate behavior.

More companies than ever before are supporting sustainable behavior (Solomon, 2010, p. 16), as products and production processes are becoming cleaner leading to positive effects in the environment. Especially in the industrial countries, companies are increasing their sustainable activities as they have noticed that they can reduce pollution and increase profits simultaneously (Hart, 1997). Hart (1997, p. 67) further states: “Corporations are the only organizations with the resources, the technology, the global reach, and ultimately, the motivation to achieve sustainability”. Companies’ power is far reaching and has no longer such a dependent role under the country’s government policies as it used to have when the state was dominant and acting as a regulator (Crane and Matten, 2004). Companies subordinated themselves, taking advantage of this system for instance during the 1980s and 1990s when companies in the U.S. exploited their liberties and started to behave with social irresponsibility because of government deregulations (Campbell 2007).

The role of the state in the traditional context has changed to a more international one due to the increasing globalization and converging economic systems. Nowadays, companies have more power as economic relationships extend beyond national boundaries (Albareda et al., 2008). In consequence, political decisions are made on an international level, in terms of summits such as the United Nations Conference on Environment and Development (UNCED) or annual occurring climate conferences. National governments convert the decisions and implement laws and policies to achieve the international goals. Many national governments commit themselves to reduce greenhouse gases by allowing companies to pollute the environment only to a certain limit. In case of exceeding this limit, companies need to pay a “Pigovian tax”, an extra tax for harmful externalities (De Vicente et al. 2012). National governments can also motivate companies by means of subventions and financial support to adopt environmental friendly practices. When approving loans or assigning public contracts, governments usually prefer responsible companies such as those that are members of the Global Compact (Cuesta and Valor, 2004), a platform

founded by the United Nations, that companies can voluntarily join to comply with regulations regarding environmental protection (Bremer, 2008).

The impact of NGOs on political decisions about environmental issues has increased as they have increased in number, power and influence since the 1980s (Keck and Sikkink, 1998). They make further impact on companies as they promote ethical and socially responsible business practices which lead to a positive change in corporate management, strategy, and governance (Doh and Teegen, 2006). Doh and Guay (2003) found that different institutional structure and political legacies are important factors which explain the influence of NGOs in the policy-making process. Although NGOs often work across national boundaries on international projects, their impact is influenced by the national and regional context in which they operate. The relationship between government policies and NGOs can be described as a mutual relation, given that NGOs depend to a high extent on governmental decisions but they also influence them. Further responsibility is carried by scientific research as it is a creation of knowledge and derived recommendations, applied and implemented by other actors such as politicians, companies or consumers (Heise, 2009).

3.2.2 Individual responsibility

Perceived consumer effectiveness examines the extent to which the consumer has an impact on the environment. Findings suggest that a high level of perceived consumer effectiveness leads to a greater environmental consumer behavior (Roberts, 1996; Kinnear et al., 1974; Tucker, 1980). Consumers exhibit different perceptions about their impact on the environment. Socially conscious consumers accept that they do have a certain responsibility towards the environment. Others make excuses for not contributing more and finally, some of them totally deny their responsibility towards the environment (Malpass et al., 2007, p. 249). Webster (1975) defines the socially conscious consumer as someone who takes into account the public consequences of his or her private consumption or who

attempts to use his or her purchasing to bring about social change. Solomon et al. (2010, p. 17) use the term “political consumer” and define him or her as “a consumer who expresses their political and ethical viewpoints by selecting and avoiding products from companies which are antithetical.” Responsible consumers are of special interest to companies as their perceptions influence consumer behavior (Mohr and Webb, 2005; De Pelsmacker and Janssens, 2007). Perception further affects the image of brands and firms, their financial performance, and the affinity of consumers to buy specific products (Luo and Bhattacharya, 2006) and influences the consumers’ attitude towards companies (e.g. Lichtenstein et al., 2004). Consumers require from companies not just a product of quality at low price but also an ethical behavior demonstrating a contribution to the community. Contradictory behavior such as not fulfilling the ethical standards would be punished by the consumer (Marin and Ruiz, 2007). Brown and Dacin (1997) found that corporate sustainable behavior affects the consumers’ reaction to a company’s products, reflected in their purchase. Sustainable issues impact consumption patterns during the purchasing process (Rawwas, 2005). Sen and Bhattacharya (2001) add that perceived corporate responsibility can also have direct effects on the attractiveness of the company’s products among corporate social responsibility (CSR) sensitized consumers. Therefore it is important to spread positive information about sustainable activities as negative information about CSR has stronger effects on the consumer than positive information. Products further need to promise the consumer individual value added such as quality, health, product safety and affordability. Corporate sustainable behavior can only cause benefit if the quality does not suffer (Carrigan and Attala, 2001) and if product offerings are improved.

However, consumer perception varies among cultures. Following the definition of Kroeber and Kluckhohn (1952), we define culture as a consensus of the behavioral patterns of many individuals. This consensus is based on larger social units such as countries, comprehensive language communities or cross-

national units such as the European culture. Large differences among the value systems of several European countries which are resistant to change because they are strongly rooted in history (De Mooij and Hofstede, 2002) cause us to believe that there are significant differences among the consumers' perceptions between Germany and Spain.

3.3 Theory and hypotheses

According to Webster (1975) the socially conscious consumer is aware of the public consequences of his private consumption and believes that his purchasing power influences the social change. Mohr, Webb and Harris (2001) add that the more consumers view their purchasing power as influential over company behavior, the more likely they are to practice responsible consumption. We support Jackson (2005) who describes consumer behavior as the biggest impact on the environment and believe that perceived individual responsibility is linked with the consumer's environmental knowledge. Knowledge is recognized as a characteristic that influences all phases in the consumer's decision process (Alba and Hutchinson, 1987).

The Spanish ethical market is still in the early phase of development compared to Northern European countries (Papaoikonomou et al., 2011). Besides, the system of NGOs which usually work as drivers for consumer awareness is not well-coordinated in Spain. Consequently, a majority of Spanish consumers do not incorporate the environmental criteria during their purchase decision (Cuesta and Valor, 2004). On the contrary, Maignan (2001, p. 60) found that German consumers "are likely to incorporate society's well-being in their shopping decisions". Comparing German to French and U.S. consumers Maignan (2001) further states that German consumers appear more willing to actively support sustainable behavior. These facts underline a higher existing responsibility among the German consumers proposing the following hypotheses:

Hypothesis 1a: German consumers perceive individual responsibility as most important regarding environmental sustainable behavior.

Hypothesis 1b: Spanish consumers do not perceive individual responsibility as most important regarding environmental sustainable behavior.

Hypothesis 2: German consumers allocate more importance to individual responsibility than Spanish consumers.

Several prior studies have analyzed linkages between age and environmental consciousness but mostly with non-significant relationships, indicating that younger people exhibit higher levels of knowledge (Diamantopoulos et al., 2003). In contrast, De Pelsmacker et al. (2005) identified middle-aged consumers between 31 and 44 years as most sensitive, analyzing the perception towards Fair Trade as an example of social responsibility. An explanation for this could be that consumers following the modern existing Lifestyle of health and sustainability (LOHAS) (Kotler, 2011) belong to this aging group to a high extent. LOHAS are enlightened consumers who search for individual but also social and environmental benefits when making their purchase (Carrero et al., 2010). Environmental behavior expressed through responsible purchases often cause additional expenses (Uusitalo and Oksanen, 2004), which can only be supported by people with a higher income level, which are mainly represented by the middle-aged. Defining the existing aging group between 35 and 49 years in our study as middle-aged, we propose the following hypothesis:

Hypothesis 3a: Consumers between 35 and 49 years exhibit a higher perceived individual responsibility towards the environment than other aging groups.

Previous studies investigating the linkage between gender and environmental issues have found significant relationships but indicate different results.

Balderjahn (1988), for example, found out that the relationship between environmentally conscious attitudes and the use of sustainable products was more intensive among men than among women. In contrast, Banerjee and McKeage (1994) suggest that women tend to be more environmental conscious than men. Bageac et al. (2011) observes in previous studies a more sustainable behavior among women as well. Diamantopoulos et al. (2003) suggest differentiating between environmental knowledge and environmental behavior, measuring the gender effect. They believe that females exhibit higher environmental behavior and a higher concern, whereas males tend to have a better environmental knowledge. Supporting Barreiro et al. (2002) we believe that people with higher environmental concern also tend to have a better level of ecological knowledge which leads to a higher perceived individual responsibility. In consequence, we expect women to exhibit a higher perception than men, leading us to the following hypothesis:

Hypothesis 3b: Female consumers exhibit a higher perceived individual responsibility towards the environment than men.

3.4 Methodology

The perception of individual responsibility towards the environment is measured throughout the second and the third question within the survey: *How important do you think is individual behavior for the impact on the environment?* (Not important at all (1), not important (2), undecided (3), important (4), extremely important (5)) and *In your opinion, who is responsible for sustainability to what extent?* (Government policies, science, companies, NGOs and consumers). The first question turned out to be less meaningful as no significant differences were found between German and Spanish consumers.² In consequence, our study focuses on the third question as respondents are able to

² Evidence is provided in Table 3.7 and Table 3.8 (Appendix).

value and compare individual responsibility to the responsibility of government policies, science, companies, and NGOs.

Several analysis techniques are used to offer insight in our data and to answer our research questions. In a first step a *t*-Test averages the perception-based variables consumers, government policies, companies, science and NGOs and ascertains the significance between them. *T*-values and significance between the factors are provided in the Appendix. A one-way ANOVA uncovers the significance of the factors among the countries. Results are supposed to give advice about the differences of perceived responsibility in one country and detect significant differences between both countries. By the use of two repeated measures ANOVA, we measure the influence of socio-demographic variables, using age and gender as independent variables and consumers, government policies, companies, science and NGOs as dependent variables. The age variable was classified into the four categories, 18-25 years, 26–34 years, 35-49 years, and 50 years or older (e.g. Swaidan, 2011). Results of this analysis are supposed to discover differences in the perceived responsibility between the four aging groups as well as between male and female in both countries. The analyses are run with SPSS v20.

3.5 Results

Consistent with *Hypothesis 1a*, the highest value is scored on consumers' responsibility among the German consumer group, followed by government policies and companies, ranked as second and third (see Table 3.1). Finally, science and NGOs are perceived as less responsible for sustainable behavior. Testing *Hypothesis 1b*, Spanish consumers perceive government policies to be most responsible for sustainable behavior followed by companies and science on the second and third rank. Individual responsibility is ranked fourth only followed by NGOs.

Table 3.1: Mean value comparison for perceived responsibility between Germans and Spaniards

	Germans (<i>n</i> = 486)		Spaniards (<i>n</i> = 503)		<i>t</i> Value	<i>p</i>
	M (rank)	SD	M (rank)	SD		
Government policies	6.19 (2)	1.214	6.08 (1)	1.343	-1.35	0.178
Science	5.70 (4)	1.413	5.80 (3)	1.194	1.22	0.222
Companies	6.13 (3)	1.301	5.93 (2)	1.350	-2.41	0.016**
NGOs	5.47 (5)	1.455	5.56 (5)	1.324	1.08	0.280
Consumers	6.23 (1)	1.163	5.67 (4)	1.454	-6.73	0.000***

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

For Germans, most relations between the single analyzed factors are significant except the relation between government policies and companies, government policies and consumers, companies and NGOs, as well as companies and consumers (see Table 3.2).

Table 3.2: Mean value differences for responsibility among German consumers

	Gov. policies	Science	Companies	NGOs	Consumer
Gov. policies		.49 (***)	.06 (n.s.)	.72 (***)	-.04 (n.s.)
Science			-.43 (***)	.23 (***)	-.53 (***)
Companies				.67 (n.s.)	-.10 (n.s.)
NGOs					-.76 (***)
Consumers					

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

In the Spanish sample all the relations between the factors are significant except the relation between consumer and NGOs (see Table 3.3). Differences between the non-significant relationships cannot be interpreted.

Table 3.3: Mean value differences for responsibility among Spanish consumers

	Gov. politics	Science	Companies	NGOs	Consumer
Gov. politics		.28 (**)	.15 (**)	.52 (**)	.41 (**)
Science			-.13 (*)	.24 (**)	.13 (*)
Companies				.37 (**)	.26 (**)
NGOs					-.11 (n.s.)
Consumers					

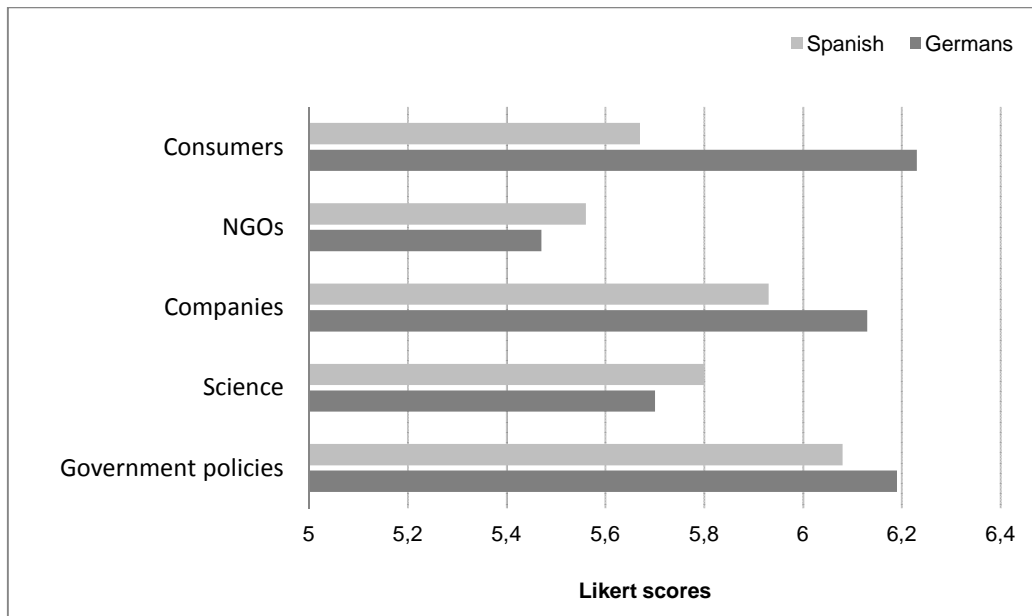
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Testing *Hypothesis 2*, ANOVA results show significant differences between the countries with a higher perceived consumers' responsibility among the Germans ($M = 6.23$ vs. $M = 5.67$; $p < 0.01$). German consumers were also significantly more supportive of the perceived companies' responsibility ($M = 6.13$ vs. $M = 5.93$; $p < 0.05$) (see Table 3.9). Non-significant differences among consumers were found for government policies, science and NGOs ($p > 0.05$).

Comparing both consumer groups, an agreement on NGOs as the least responsible can be stated (see Figure 3.1)³. A disagreement appears, comparing the higher perceived factors. Consumers in Spain perceive government policies to be most responsible, whereas Germans rank individual behavior as first, which is only ranked fourth among the Spaniards. Government policies is ranked on the second spot among the Germans, whereas companies are seen as the second most important among the Spaniards. The results of the demographic factors are discussed in the following section.

³ More evidence is provided in Table 3.9 (Appendix).

Figure 3.1: Perceived responsibility by German and Spanish respondents



The demographic factors age and gender exhibit differing results to confirm *Hypothesis 3a* and *Hypothesis 3b*. The ANOVA results show a significant effect for age among the German consumers for government policies, science, companies, NGOs and consumers (see Table 3.4).⁴ Non-significant results were detected among the Spanish consumers for government policies, science, companies, NGOs and also for consumers.⁵ In consequence, there is insufficient evidence indicating that Spanish middle-aged exhibit a higher perception for individual responsibility than the other aging groups.

⁴ More evidence is provided in Table 3.12 and Table 3.13 Appendix).

⁵ More evidence is provided in Table 3.10 and Table 3.11 (Appendix).

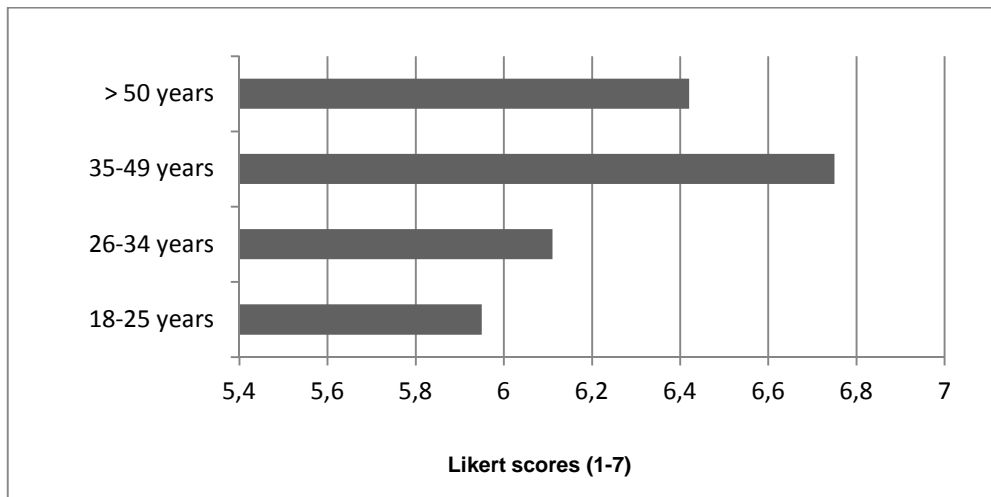
Table 3.4: Age and gender differences for German and Spanish respondents

	Age		Gender	
	German	Spanish	German	Spanish
	<i>F</i> (<i>p</i>)	<i>F</i> (<i>p</i>)	<i>F</i> (<i>p</i>)	<i>F</i> (<i>p</i>)
Government policies	7.07 (***)	2.50 (n.s.)	19.46 (***)	2.47 (n.s.)
Science	5.23 (***)	0.52 (n.s.)	22.46 (***)	7.83 (**)
Companies	6.32 (***)	2.01 (n.s.)	19.67 (***)	11.73 (***)
NGOs	7.94 (***)	0.78 (n.s.)	17.91 (***)	17.23 (***)
Consumers	10.12 (***)	0.02 (n.s.)	11.59 (***)	7.09 (***)

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

The second ANOVA results show a significant effect for gender among the German consumers for individual behavior. Further significant effects were stated for government policies, science, companies, NGOs and consumers.⁶ A non-significant effect for gender among the Spaniards was stated for government policies whereas significant results were stated for science, companies, NGOs and consumers.⁷

Figure 3.2: Age effects on perceived individual responsibility for Germans



⁶ More evidence is provided in Table 3.16 and Table 3.17 (Appendix).

⁷ More evidence is provided in Table 3.14 and Table 3.15 (Appendix).

As expected, the highest value for consumers is found between the 35 and 49 year old respondents among the Germans (see Figure 3.2). The second highest value for individual responsibility was scored by the over 50 year old respondents. Younger people (26-34 years and 18-25 years) scored the lowest value (see Table 3.5). In the Spanish sample, age has no significant effect for consumers. Considering gender to be an influential factor, women achieve higher scores for consumers' responsibility than men among both consumer groups (see Figure 3.3).

Figure 3.3: Gender effect on individual responsibility for Germans and Spaniards

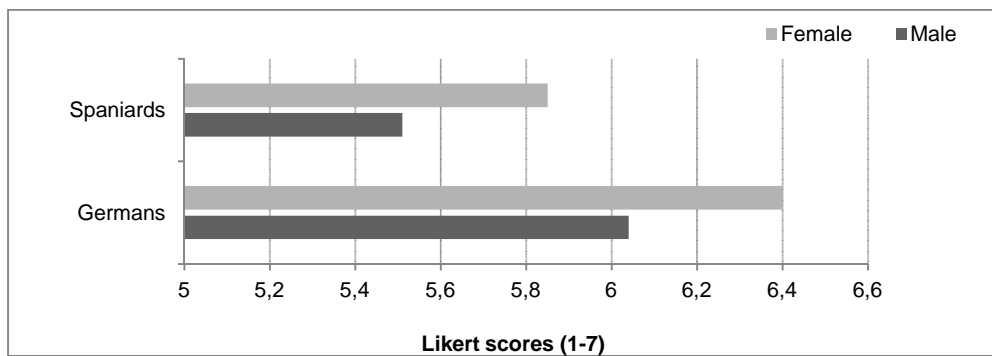


Table 3.5: Age and gender effects on individual responsibility for German and Spanish consumers

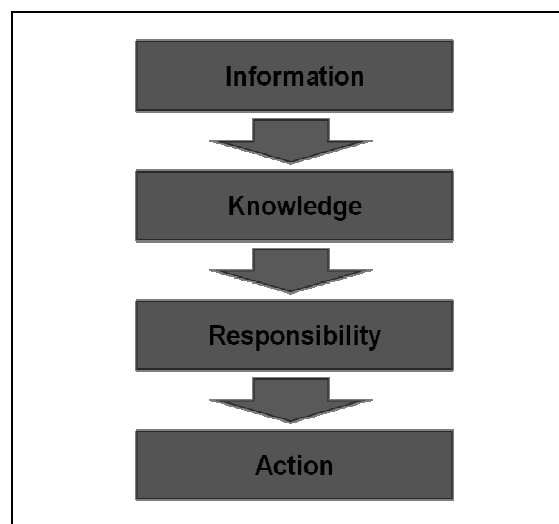
	Gov. policies		Science		Companies		NGOs		Consumers	
	GER	ESP	GER	ESP	GER	ESP	GER	ESP	GER	ESP
Age										
18-25	5.89***	6.09***	5.31***	5.73	5.78***	6.14	5.05***	5.91	5.95***	5.73
26-34	6.22***	6.26***	5.73***	5.76	6.13***	6.09	5.43***	5.62	6.11***	5.68
35-49	6.63***	6.09***	5.98***	5.87	6.54***	5.92	5.98***	5.53	6.75***	5.66
50 or over	6.05***	5.78***	5.97***	5.71	6.26***	5.67	5.69***	5.47	6.42***	5.65
Gender										
Male	5.93***	5.99	5.47***	5.66***	5.86***	5.74***	5.17***	5.34***	6.04***	5.51***
Female	6.41***	6.18	5.90***	5.96***	6.37***	6.15***	5.72***	5.82***	6.40***	5.85***

*** p < 0.01, ** p < 0.05, * p < 0.1

3.6 Discussion

Hypothesis 1a stating that German consumers perceive individual responsibility towards the environment as most important has been fully supported. In contrast, individual responsibility is not perceived to be the most important among the Spanish which supports our *Hypothesis 1b*. Emphasizing these results, we also state a higher perceived responsibility of the German consumer compared to the Spanish consumer, supporting *Hypothesis 2*. We explain this result as amongst others perception is influenced by product offer, product information and consumer knowledge (De Pelsmacker and Janssens, 2007). Based on previous literature, we believe that these aspects are more developed in Northern European countries (Polonsky et al., 2001; Polonsky et al., (2001). Carrero et al. (2010) confirm a weak sustainable information system in Spain. Market conditions and sustainable information influence consumer knowledge about environmental issues. Consumer knowledge affects individual responsibility, which in turn impacts on consumer behavior (see Figure 3.4).

Figure 3.4: Effects of corporate information



In Spain, the segment of consumers seeing themselves to be the factor of change in terms of environmental issues is small. People with high perceived

consumer effectiveness are characterized as high educated, often belonging to NGOs. Carrero et al. (2010) name three obstacles which prevent the development of environmental sustainable consumption in Spain, firstly the missing motivation, secondly the missing information, and finally additional expenses. They further consider missing information to be the most important obstacle. Consumers are not able to evaluate the sustainable attributes of a product, if the company does not inform about the product's social and ethical consequences. There are no specific regulations in Spain about the use or misuse of accompanying information on the products, which prevents the consumer from being able to complain about a company's behavior. Our study supports these facts as Spaniards perceive government policies as most responsible towards environmental issues, followed by companies.

Table 3.6: Summary of hypotheses

Cultural factor			
Hypothesis 1a	Germans towards individual responsibility	Supported	
Hypothesis 1b	Spanish towards individual responsibility	Supported	
Hypothesis 2	Germans compared to Spanish	Supported	
Socio-demographic factors		Germans	Spanish
Hypothesis 3a	Age towards individual responsibility	Supported	Not supported
Hypothesis 3b	Gender towards individual responsibility	Supported	Supported

Hypothesis 3a could be supported partially as middle-aged consumers between 35 and 49 years scored the highest value on perceived individual responsibility only among the German consumers (see Table 3.6). Among the Spanish consumers our findings support Diamantopoulos et al. (2003) who mostly stated non-significant relationships with a higher exhibited knowledge among younger people. These results are probably related to the given information on environmental issues in both countries. Middle-aged people who follow the LOHAS lifestyle are influenced through environmental information to a high

extent. The more developed ethical market of Northern countries provides more sustainable information, especially engaging middle-aged Germans to be more responsible. According to Carrero et al. (2010) corporate information is low as companies do not inform sufficiently about their sustainable product offer. Communication usually affects aging groups in a different way. A low sustainable communication level in Spain could explain the non-significant influence of the demographic factor age.

Consistent with our *Hypothesis 3b*, females scored the highest value on individual responsibility in both countries. This result raises the question whether perceived individual responsibility is rather linked to environmental knowledge or whether it is related to environmental concern. In various previous studies women were identified to be more conscious towards environmental issues adapting their behavior in terms of sustainable purchases for instance. Men were often identified to exhibit a greater knowledge. Barreiro (2002) even believes in a positive relationship between environmental concern and environmental knowledge. This study clearly identified women to be more responsible than men but it does not resolve whether this is related to knowledge or to concern.

3.7 Conclusion

This chapter sought to analyze the level of responsibility among the respondents and whether there exist cross-national differences between consumers in Germany and in Spain. Moreover, a socio-demographic profile of the responsible consumer was supposed to be created. Environmental knowledge was supposed to be an indicator for the level of individual responsibility.

Our results indicate that perceived individual responsibility varies between the analyzed nations, as we identified a higher responsibility among the German consumers. Spaniards perceived government policies, companies and science to be more responsible. In other words, Germans believe to a higher degree that their behavior has a significant impact on society and that their efforts make real

effect. By creating a socio-demographic profile, we found women to be more responsible than men in both societies. Furthermore, Germans between 35 and 49 years were identified to be most responsible whereas no aging group could be identified to be more responsible among the Spaniards. Comparing our expectations with our results, environmental knowledge could be recognized as a good indicator for perceived individual responsibility as a higher environmental knowledge is supposed to exist in Northern and Middle European countries according to prior studies. Consumers start to act responsible if they feel a certain effectiveness of their behavior. High perceived consumer effectiveness requires knowledge about how one can contribute in a responsible way. Knowledge can be induced by a high degree of information. In the further course of this thesis, the information level of consumers in Germany and Spain is measured through a comparison of perceived corporate information regarding the environmental impact of products.

3.8 Appendix

Table 3.7: Mean value comparison for importance of individual responsibility

	Nationality	N	Mean	Std. Deviation	Std. Error Mean
Importance	Spanish	503	4.16	.799	.036
Individual behavior	German	486	4.15	.994	.045

Table 3.8: Independent samples test for the importance of individual responsibility

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Importance	Equal variances assumed	6.959	.008	.260	987	.795	.015	.057	-.097	.127
Individual behavior	Equal variances not assumed			.259	929.608	.796	.015	.057	-.098	.128

Table 3.9: T-test for individual responsibility differences between German and Spanish sample

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
Responsibility: Government policies	Equal variances assumed	3.857	.050	-1.347	987	.178	-.110	.081	-.270	.050	
	Equal variances not assumed			-1.350	982.694	.177	-.110	.081	-.269	.050	
Responsibility: Science	Equal variances assumed	12.157	.001	1.223	987	.222	.102	.083	-.061	.265	
	Equal variances not assumed			1.219	948.912	.223	.102	.083	-.062	.265	
Responsibility: Companies	Equal variances assumed	.240	.624	-2.411	987	.016	-.203	.084	-.369	-.038	
	Equal variances not assumed			-2.413	986.993	.016	-.203	.084	-.369	-.038	
Responsibility: NGOs	Equal variances assumed	4.523	.034	1.081	987	.280	.096	.088	-.078	.269	
	Equal variances not assumed			1.079	970.956	.281	.096	.089	-.078	.269	
Responsibility: Consumers	Equal variances assumed	37.328	.000	-6.703	987	.000	-.562	.084	-.727	-.398	
	Equal variances not assumed			-6.728	953.983	.000	-.562	.084	-.727	-.398	

Table 3.10: Descriptive results for age differences regarding individual responsibility in Spanish sample

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Responsibility: Government policies	18 a 25	22	6.09	1.231	.262	5.55	6.64	2	7
	26 a 34	140	6.26	1.306	.110	6.05	6.48	1	7
	35 a 49	246	6.09	1.265	.081	5.93	6.25	1	7
	> 50	95	5.78	1.565	.161	5.46	6.10	1	7
Responsibility: Science	18 a 25	22	5.73	1.120	.239	5.23	6.22	3	7
	26 a 34	140	5.76	1.323	.112	5.54	5.99	2	7
	35 a 49	246	5.87	1.130	.072	5.72	6.01	1	7
	> 50	95	5.71	1.184	.121	5.46	5.95	2	7
Responsibility: Companies	18 a 25	22	6.14	.990	.211	5.70	6.58	3	7
	26 a 34	140	6.09	1.240	.105	5.89	6.30	2	7
	35 a 49	246	5.92	1.335	.085	5.75	6.09	1	7
	> 50	95	5.67	1.574	.161	5.35	5.99	1	7
Responsibility: NGOs	18 a 25	22	5.91	.868	.185	5.52	6.29	4	7
	26 a 34	140	5.62	1.322	.112	5.40	5.84	2	7
	35 a 49	246	5.53	1.342	.086	5.36	5.70	1	7
	> 50	95	5.47	1.367	.140	5.20	5.75	1	7
Responsibility: Consumers	18 a 25	22	5.73	1.518	.324	5.05	6.40	2	7
	26 a 34	140	5.68	1.466	.124	5.43	5.92	1	7
	35 a 49	246	5.66	1.421	.091	5.48	5.84	1	7
	> 50	95	5.65	1.528	.157	5.34	5.96	1	7

Table 3.11: ANOVA results for age effect on Spanish respondents

		Sum of	df	Mean	F	Sig.
		Squares		Square		
Responsibility: Government policies	Between Groups	13.389	3	4.463	2.498	.059
	Within Groups	891.430	499	1.786		
	Total	904.819	502			
Responsibility: Science	Between Groups	2.214	3	.738	.516	.672
	Within Groups	713.906	499	1.431		
	Total	716.119	502			
Responsibility: Companies	Between Groups	10.923	3	3.641	2.011	.112
	Within Groups	903.642	499	1.811		
	Total	914.565	502			
Responsibility: NGOs	Between Groups	4.099	3	1.366	.779	.506
	Within Groups	875.678	499	1.755		
	Total	879.777	502			
Responsibility: Consumers	Between Groups	.123	3	.041	.019	.996
	Within Groups	1061.432	499	2.127		
	Total	1061.555	502			

Table 3.12: ANOVA results for age effect on German respondents

		Sum of	df	Mean	F	Sig.
		Squares		Square		
Responsibility: Government policies	Between Groups	30.122	3	10.041	7.071	.000
	Within Groups	684.463	482	1.420		
	Total	714.584	485			
Responsibility: Science	Between Groups	30.532	3	10.177	5.232	.001
	Within Groups	937.608	482	1.945		
	Total	968.140	485			
Responsibility: Companies	Between Groups	31.055	3	10.352	6.322	.000
	Within Groups	789.251	482	1.637		
	Total	820.307	485			
Responsibility: NGOs	Between Groups	48.364	3	16.121	7.940	.000
	Within Groups	978.609	482	2.030		
	Total	1026.973	485			
Responsibility: Consumers	Between Groups	38.892	3	12.964	10.122	.000
	Within Groups	617.298	482	1.281		
	Total	656.189	485			

Table 3.13: Descriptive results for age differences regarding individual responsibility in German sample

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Responsibility: Government policies	18 a 25	123	5.89	1.350	.122	5.65	6.13	1	7
	26 a 34	209	6.22	1.186	.082	6.06	6.39	1	7
	35 a 49	89	6.63	.760	.081	6.47	6.79	2	7
	> 50	65	6.05	1.363	.169	5.71	6.38	2	7
Responsibility: Science	18 a 25	123	5.31	1.466	.132	5.05	5.57	2	7
	26 a 34	209	5.73	1.354	.094	5.54	5.91	1	7
	35 a 49	89	5.98	1.373	.146	5.69	6.27	2	7
	> 50	65	5.97	1.414	.175	5.62	6.32	2	7
Responsibility: Companies	18 a 25	123	5.78	1.550	.140	5.50	6.06	1	7
	26 a 34	209	6.13	1.278	.088	5.95	6.30	1	7
	35 a 49	89	6.54	.942	.100	6.34	6.74	2	7
	> 50	65	6.26	1.108	.137	5.99	6.54	2	7
Responsibility: NGOs	18 a 25	123	5.05	1.342	.121	4.81	5.29	1	7
	26 a 34	209	5.43	1.499	.104	5.22	5.63	1	7
	35 a 49	89	5.98	1.430	.152	5.68	6.28	2	7
	> 50	65	5.69	1.322	.164	5.36	6.02	2	7
Responsibility: Consumers	18 a 25	123	5.95	1.348	.122	5.71	6.19	1	7
	26 a 34	209	6.11	1.203	.083	5.95	6.28	1	7
	35 a 49	89	6.75	.695	.074	6.61	6.90	2	7
	> 50	65	6.42	.900	.112	6.19	6.64	4	7

Table 3.14: Descriptive results for gender differences regarding individual responsibility in Spanish sample

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Responsibility: Government policies	Men	271	5.99	1.361	.083	5.83	6.16	1	7
	Women	232	6.18	1.317	.086	6.01	6.35	1	7
	Total	503	6.08	1.343	.060	5.96	6.20	1	7
Responsibility: Science	Men	271	5.66	1.203	.073	5.52	5.81	1	7
	Women	232	5.96	1.167	.077	5.81	6.11	2	7
	Total	503	5.80	1.194	.053	5.70	5.91	1	7
Responsibility: Companies	Men	271	5.74	1.406	.085	5.57	5.91	1	7
	Women	232	6.15	1.248	.082	5.99	6.31	1	7
	Total	503	5.93	1.350	.060	5.81	6.05	1	7
Responsibility: NGOs	Men	271	5.34	1.332	.081	5.18	5.50	1	7
	Women	232	5.82	1.269	.083	5.66	5.99	1	7
	Total	503	5.56	1.324	.059	5.45	5.68	1	7
Responsibility: Consumers	Men	271	5.51	1.485	.090	5.33	5.69	1	7
	Women	232	5.85	1.397	.092	5.67	6.03	1	7
	Total	503	5.67	1.454	.065	5.54	5.80	1	7

Table 3.15: ANOVA results for gender effect on Spanish respondents

		Sum of	df	Mean	F	Sig.
		Squares		Square		
Responsibility: Government policies	Between Groups	4,437	1	4,437	2,469	,117
	Within Groups	900,382	501	1,797		
	Total	904,819	502			
Responsibility: Science	Between Groups	11,026	1	11,026	7,834	,005
	Within Groups	705,094	501	1,407		
	Total	716,119	502			
Responsibility: Companies	Between Groups	20,926	1	20,926	11,732	,001
	Within Groups	893,639	501	1,784		
	Total	914,565	502			
Responsibility: NGOs	Between Groups	29,255	1	29,255	17,233	,000
	Within Groups	850,522	501	1,698		
	Total	879,777	502			
Responsibility: Consumers	Between Groups	14,810	1	14,810	7,089	,008
	Within Groups	1046,744	501	2,089		
	Total	1061,555	502			

Table 3.16: ANOVA results for gender effect on German respondents

		Sum of	df	Mean	F	Sig.
		Squares		Square		
Responsibility: Government policies	Between Groups	27.615	1	27.615	19.456	.000
	Within Groups	686.970	484	1.419		
	Total	714.584	485			
Responsibility: Science	Between Groups	22.457	1	22.457	11.493	.001
	Within Groups	945.683	484	1.954		
	Total	968.140	485			
Responsibility: Companies	Between Groups	32.026	1	32.026	19.664	.000
	Within Groups	788.281	484	1.629		
	Total	820.307	485			
Responsibility: NGOs	Between Groups	36.642	1	36.642	17.908	.000
	Within Groups	990.331	484	2.046		
	Total	1026.973	485			
Responsibility: Consumers	Between Groups	15.352	1	15.352	11.594	.001
	Within Groups	640.838	484	1.324		
	Total	656.189	485			

Table 3.17: Descriptive results for gender differences regarding individual responsibility in German sample

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Responsibility: Government policies	Men	226	5.93	1.405	.093	5.75	6.12	1	7
	Women	260	6.41	.969	.060	6.29	6.53	1	7
	Total	486	6.19	1.214	.055	6.08	6.30	1	7
Responsibility: Science	Men	226	5.47	1.515	.101	5.27	5.67	1	7
	Women	260	5.90	1.288	.080	5.74	6.06	1	7
	Total	486	5.70	1.413	.064	5.57	5.83	1	7
Responsibility: Companies	Men	226	5.86	1.517	.101	5.66	6.06	1	7
	Women	260	6.37	1.023	.063	6.25	6.50	1	7
	Total	486	6.13	1.301	.059	6.02	6.25	1	7
Responsibility: NGOs	Men	226	5.17	1.541	.103	4.97	5.37	1	7
	Women	260	5.72	1.327	.082	5.56	5.89	1	7
	Total	486	5.47	1.455	.066	5.34	5.60	1	7
Responsibility: Consumers	Men	226	6.04	1.290	.086	5.87	6.21	1	7
	Women	260	6.40	1.014	.063	6.27	6.52	1	7
	Total	486	6.23	1.163	.053	6.13	6.33	1	7

Chapter 4

Perception of the environmental performance in retail stores⁸

⁸ This chapter is based on Stolz et al. (2012 b).

4.1 Introduction

In retailing, the importance of environmental protection is steadily increasing due to the consumer's growing environmental sensitiveness. According to Ajzen (1991), consumers are likely to adapt their consumption habits to their concerns. As a consequence, most large European retailers implement actions to protect the environment. These may include their own activities, but also requirements for suppliers to act in a responsible manner (Ytterhus et al., 1999; Ganesan et al., 2009). Retailers have various options to convince consumers about their sustainable products, such as improving the environmental quality of products, using environmental labels, and banning products from the shelves that have a clear environmental impact. The consumer's perception of the activities varies also because of the different motives driving sustainable consumption. In their value-basis theory, Stern and Dietz (1994) differentiate between biospheric, egoistic or altruistic motives. Previous results support their theory, providing strong evidence for the distinction between these three environmental concerns.

Primary scientific studies on the impact of culture on personal values were conducted during the late nineties (Deng et al., 2006). These studies show that cultural prevalence seems to be a relevant factor influencing environmental concerns. Compared to Northern European countries, the Spanish ethical market is still developing (Papaoikonomou et al., 2011) whereas existing social trend groups such as the LOHAS ("Lifestyle of Health and Sustainability") emphasize the advanced sustainable market and the consumer's increasing sensitivity for sustainable consumption in Germany. The increasing approximation of the European Union countries, expanding European retailers and cross-national marketing strategies indicate converging economic systems in Europe. However, there is evidence that value systems are not converging since consumer behavior, reflected in consumption and product use, differ among the European countries (De Mooij and Hofstede, 2002).

The objective of this study is to examine the environmental motive concerns which lead the environmental sensitive consumer to sustainable consumption. Moreover, we analyze whether cross-national differences concerning the perceived environmental performance in retailing exist. Research about the consumer's perception is needed to gain further insights into the relevance of sustainability for consumers (Wiese et al., 2012). Taking into account the consumers' motivations, communication messages could be targeted at individuals (Freestone and McGoldrick, 2008). Due to the international scope of corporate activities, it is important for retailers to know if their environmental performance is perceived in the same manner across borders (Maignan, 2001). The analysis of the German and the Spanish consumer is promising as "culture" is proven to be a distinct variable, influencing product purchase (Blackwell et al., 2001). Previous studies have proven that consumer values and behavior even varies among European countries (DeMooij and Hofstede, 2001). This study is expected to shed light on the aspects retailers need to focus on to raise the consumer's attention in German and Spanish retail markets.

4.2 Literature review

4.2.1 Sustainability in retail practice

Retailers are becoming more and more aware of sustainability issues (Groeber, 2008) and have several options to improve their impact on the environment, such as promoting the purchase of green products, encouraging measures that improve green supply chains, improving retailers' own performance, and better informing consumers (European Commission, 2009). They play an important role in supply chains as they are intermediaries between consumers and producers (Ytterhus et al., 1999). Large retailers especially have the capability to control supply chains to a large degree (Hingley, 2005).

Retailers with their own private-label can build up a sustainable competitive advantage through differentiating their offerings from those of competitors

(Groeber, 2008). A contribution of their own private label can be demonstrated through eco-design activities such as offering products with special consideration for the environment through responsible care during the product's whole lifecycle. Furthermore, environmental labels can be used to raise the consumer's attention. Finally, retailers can improve their environmental performance through banning those products from the shelves with important environmental impacts. As an example, the Spanish retailer Mercadona has banned the use of PVC in packaging. Furthermore, the French multinational retailer Carrefour has completely stopped the sale of bluefin tuna in its Spanish stores. To raise the consumer perception regarding their sustainable product offers retailers need to address the consumer knowledge about how to act in an environmentally sustainable manner. As an example, clothing retailers such as H&M and C&A advise consumers about washing clothes in a more environmentally friendly way whereas Carrefour and Mercadona propose several actions on their websites encouraging and explaining more sustainable behavior (European Commission, 2009).

4.2.2 Perception of environmental retail performance

The perception of social responsibility is very important as it affects the image of brands and firms, their financial performance, and the propensity of consumers to buy specific brands and patronize certain retailers (Luo and Bhattacharya, 2006). De Pelsmacker and Janssens (2007) support that consumer perceptions influence consumer behavior. As previous research shows, especially in developed countries, consumers pay special attention to the environmental behavior of companies (Wagner et al., 2009). For this reason marketing programs are launched by retailers to make the consumer aware of the sustainable products available at their market places. Information about sustainable product offers is essential as it influences the consumer's attitude towards retail stores (e.g. Lichtenstein et al., 2004) and towards his purchase behaviors (e.g. Mohr and Webb, 2005). Still, it is important to spread positive information about

sustainability as Sen and Bhattacharya (2001) found out that negative information about Corporate Social Responsibility has stronger effects on the consumer than positive information. Nevertheless, the consumer's perception is not only influenced by the information distributed through the retailer but also by the motivations driving his consumption (Ellen et al., 2000).

4.2.3 Environmental motive concerns

Various models of environmental motives or values have been proposed in the literature. However, a tripartite classification prevails, distinguishing between the altruistic, egoistic, and biospheric motive concern. Expanding Schwartz's (1977) norm-activation model of altruism, Stern et al. (1993) argue that environmental moral norms could be activated by altruistic values as well as by egoistic or biospheric values. People with egoistic environmental attitudes are concerned about the environment but their concern is at a personal level. For example, those who hold egoistic environmental attitudes would be concerned about air pollution because of the effects it may have on their health (Schultz et al., 2005). In the biospheric value orientation, people judge environmental issues on the basis of costs or benefits to ecosystems. According to this theory, therefore, 'three distinct value orientations, toward self, other human beings and other species and the biosphere, can be distinguished and that each can independently influence intentions to act politically to preserve the environment' (Stern et al., 1995, p. 1616). However, the altruistic, the egoistic and the biospheric concept do not have to be independent from one another since individual sustainable behavior usually consists of a combination of these three approaches (Stern et al., 1993). In all three cases, people are concerned about the environment but each concept is based on different underlying values. These values can vary among different cultures (Schultz, 2002; Deng et al., 2006). A careful use of the terms "culture" and "nation" as synonyms is recommended as there exists empirical support for cultural differences within a country (Hofstede, 1980) and also for shared culture across borders. However, Dawar and Parker

(1994) argue that culture is the accumulation of shared meanings, norms and traditions and members of a nation tend to share these aspects. Throughout this research the term culture is used to operationalize nationality.

4.3 Theory and hypotheses

In the following section, we will discuss our hypotheses relating to the personal motives which drive the consumer's sustainable consumption and the perceived sustainable product offer in retail stores. The most widely used approach in marketing research to operationalize culture is the approach from Hofstede (2001) with the purpose to capture cultural differences. Comparing collectivistic and individualistic values on a European basis, Hofstede describes the Germans as 'truly individualistic' and the Spaniards as a collectivistic society. Still, the question is whether differences in individualism and collectivism influence personal motives (Oyserman and Lee, 2008). We rather believe that the increasing approximation between the European Union countries, expanding European retailers and cross-national marketing strategies decrease the cultural impact on consumer behavior. Although we suggest similar results concerning the importance of the environmental motives, we suggest different specifications. Specifically, green consumers are thought to be motivated by strong environmental values and attitudes (Schaefer and Crane, 2005). Due to a more developed sustainable market among the German society, we suppose that German consumers have developed a higher sensibility towards their impact on the society and the environment. This leads us to the following hypotheses:

Hypothesis 4: Consumers in Germany and Spain will allocate the same level of importance to the altruistic, egoistic and biospheric motive concern.

Hypothesis 4a: Consumers in Germany will allocate more importance to the altruistic motive than consumers in Spain.

Hypothesis 4b: Consumers in Germany will allocate more importance to the biospheric motive than consumers in Spain.

Consumer perception is influenced by several factors such as product offer, product information or consumer knowledge (De Pelsmacker and Janssens, 2007). In regards to the product offer Papaoikonomou et al. (2011) found that compared to Germany, the Spanish ethical market is still in the early phase of development. Spanish consumers “claim to be surprised by the variety of ethical products when traveling to other countries such as Germany or the U.S., whereas some intend to buy certain products abroad since they cannot find them in the local market” (Papaoikonomou et al., 2011, p. 83). In addition, Carrero et al. (2010) characterizes missing sustainable information in the Spanish market as a main problem for sustainable development in Spain, which in turn influences environmental knowledge negatively. These perception influencing facts lead us to the following hypothesis:

Hypothesis 5: Perceived environmental performance in retail stores varies among the German and the Spanish consumers.

Hypothesis 5a: German consumers have a higher perceived availability of sustainable products than Spanish consumers.

Hypothesis 5b: German consumers have a higher perceived visibility of sustainable products than Spanish consumers.

4.4 Methodology

In the following, our hypotheses will be tested throughout two different analysis techniques. In a first step we measure the impact of the environmental motive concerns on sustainable consumption using the method of structural equation modeling which ‘is a comprehensive statistical approach to testing hypotheses about relations among observed and latent variables’ according to Hoyle (1995, p.1). Structural equation modeling has been implemented in several

previous studies comparing environmental attitudes of specific cultural groups (e.g. Schultz, 2001; Milfont et al., 2006). Based on Stern and Dietz' (1994) value-basis theory for environmental attitudes, we suggest that environmental motive concerns can be expressed by the egoistic, the altruistic and the biospheric factor. An 8-item scale composed by the items *prestige*, *money saving*, *job risk*, *future generations*, *social effects*, *life quality*, *general benefit* and *nature* which have been used in prior studies (e.g. Stern et al., 1993; Stern et al., 1995; Mainieri et al., 1997) is selected to load on the environmental motive factors. The items *price*, *packaging*, *local products*, *green stores* and *unethical companies* are specified to load on the sustainable consumption dimension. The responses were mainly evaluated on a seven-point Likert-type scale ranging from strongly disagree (1) to strongly agree (7) (e.g. Milfont et al., 2006).

In a second step, we average the perception-based items to compare the mean values of perceived availability and visibility of sustainable products in retail stores as De Pelsmacker et al. (2005) identified the availability of green products as a determinant for sustainable consumption. Consequently we expect visibility to be influential as well. By the use of mean value comparisons, Maignan (2001) compared in a prior study consumers in Germany, France and the United States analyzing their perception of corporate responsible activities. We question the factor visibility with the item *sustainable products are visible in the retail store shelves*. Availability, however, was represented through three different items such as *many retail stores offer sustainable products*, *retail stores offer a wide range of sustainable products* and *I can buy sustainable products by all means*.

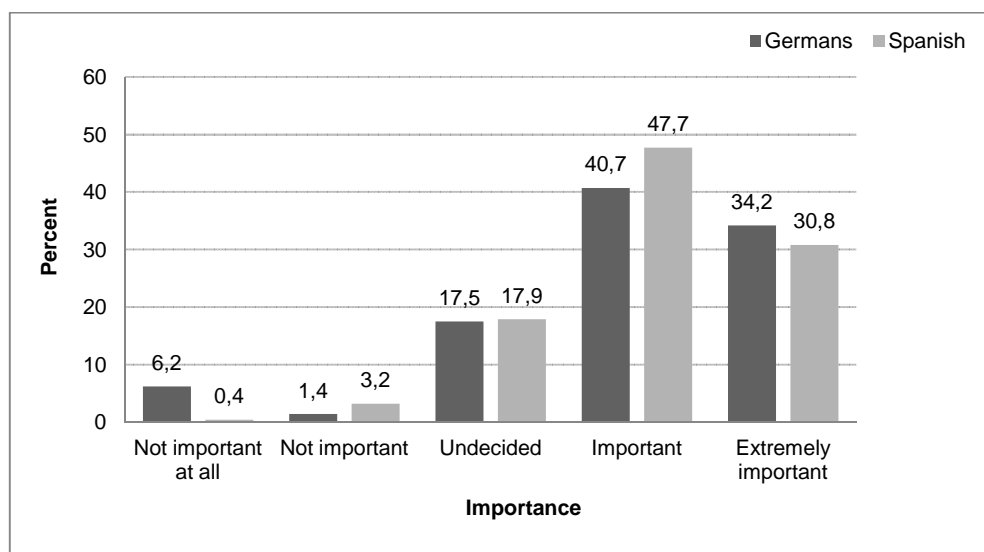
4.5 Results

4.5.1 Motive-based results

At first, respondents were filtered depending on their answer to the first question of the survey, asking the respondent about the importance of environmental issues to him or her personally. Respondents, considering

environmental issues as “not important at all” or “not important” are not included in this analysis as the consumer behavior of environmentally low-involved consumers does not depend on environmental motive concerns. Figure 4.1 indicates that 7.6 percent of the German sample (37 respondents) and 7.6 percent (18 respondents) of the Spanish sample are not provided for our structural equation model, leaving us with a rest of 449 German and 485 Spanish respondents.

Figure 4.1: Importance of environmental issues to Germans and Spanish



A confirmatory factor analysis was conducted to examine the motives and sustainable consumption dimensions (see Table 4.1). Among both consumer groups, the factors *prestige*, *money saving* and *job risk* load on the egoistic motive dimension, the altruistic motive dimension includes *future generations*, *public health*, *quality of life* and *general benefit* whereas the biospheric motive dimension just includes the factor *flora and fauna*. Besides, the items *price*, *packaging*, *local products*, *green stores* and *unethical companies* loaded on the sustainable consumption factor. To measure construct reliability for the dimensions including more than one factor, Cronbach’s alpha is used throughout the paper: egoistic motive (Spanish consumers: $\alpha = 0.505$ vs. German consumers: $\alpha = 0.415$), altruistic motive concern ($\alpha = 0.688$; $\alpha = 0.687$), sustainable

consumption ($\alpha = 0.743$; $\alpha = 0.691$). The egoistic motive dimension does not accomplish the requested Cronbach's alpha value about 0.7.

Table 4.1: Remaining items after confirmatory factor analysis

Dimensions	Selected items for SEM	Remaining items after factor analysis
Egoistic motive	Prestige (v. 7.1)	Prestige (v. 7.1)
	Personal freedom (v. 7.3)	
	Money saving (v. 7.3)	Money saving (v. 7.3)
	Personal health (v. 7.4)	
	Job risk (v. 7.5)	Job risk (v. 7.5)
Altruistic motive	Future generations (v. 7.6)	Future generations (v. 7.6)
	Public health (v. 7.7)	Public health (v. 7.7)
	Personal impact (v. 7.8)	
	Quality of life (v. 7.9)	Quality of life (v. 7.9)
	General benefit (v. 7.10)	General benefit (v. 7.10)
Biospheric motive	Impact on nature (v. 7.11)	
	Balance of nature (v. 7.12)	
	Flora and fauna (v. 7.13)	Flora and fauna (v. 7.13)
	Earth's climate (v. 7.15)	
	Local pollution (v. 7.15)	
Sustainable consumption	Price (v. 6.1)	Price (v. 6.1)
	Packaging (v. 6.2)	Packaging (v. 6.2)
	Local products (v. 6.3)	Local products (v. 6.3)
	Organic stores (v. 6.4)	Organic stores (v. 6.4)
	Unethical companies (v. 6.5)	Unethical companies (v. 6.5)

By the means of structural equation modeling the correlations between the motives and sustainable consumption dimensions are measured (e.g. Milfont et al., 2006). Multiple fit statistics are used to evaluate the degree to which data fit the model. A goodness of fit index (GFI) of 0.90 or greater and a root mean square error of approximation (RMSEA) of less than 0.10 can be interpreted as acceptable model fits (Browne and Cudeck, 1993; Hair et al., 1998; Schultz, 2001). Overall acceptable fits were found for both German consumers (GFI =

0.91 and RMSEA = 0.072) and Spanish consumers (GFI = 0.91; and RMSEA = 0.089). Further overall fits of both samples are shown in Table 4.2 such as the Tucker-Lewis index (TLI) and the Comparative Fit index (CFI).⁹

Table 4.2: Fit indices for SEM

	χ^2	<i>Df</i>	χ^2/df	<i>GFI</i>	<i>CFI</i>	<i>RMSEA</i>	<i>TLI</i>
Spaniards	299.05	63	4.75	0.91	0.82	0.089	0.771
Germans	211.25	63	3.35	0.91	0.84	0.072	0.802

In the Spanish sample the three motive concerns have significant ($p < 0.01$) positive paths to sustainable consumption as Table 4.3 indicates.¹⁰ The altruistic motive concern is highly significant and has the strongest path to sustainable consumption ($\beta = 0.53$; $p < 0.01$) (see Figure 4.4). A lower significant correlation exists between the egoistic motive concern and sustainable consumption ($\beta = 0.25$; $p < 0.01$). The lowest significant correlation exists between the biospheric motive and sustainable consumption ($\beta = 0.11$; $p < 0.01$). Among the German consumers, a negative non-significant path is measured between the egoistic motive concern and sustainable consumption ($\beta = -0.12$; $p > 0.05$) (see Figure 4.3). The biospheric motive path is significant positive ($\beta = 0.11$; $p < 0.05$). However, the altruistic motive concern has a highly significant positive path to sustainable consumption ($\beta = 0.53$; $p < 0.01$).

Table 4.3: Standardized Coefficients for the SEM

	Spanish consumers		German consumers	
	<i>Estimate</i>	<i>p</i>	<i>Estimate</i>	<i>p</i>
Egoistic → SC	0.25	0.007***	-0.12	ns
Altruistic → SC	0.53	0.000***	0.60	0.000***
Biospheric → SC	0.11	0.004***	0.05	0.035*

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

⁹ More evidence is provided in Table 4.9 and Table 4.10 (Appendix).

¹⁰ More evidence is provided in Table 4.7 and Table 4.8 (Appendix).

In both countries, the altruistic motive is the dominant motive, leading consumers in their purchase decisions. This finding supports *Hypothesis 4* partially as Spanish and German consumers attach a different importance to the egoistic and the biospheric motive (see Table 4.4). Comparing both consumer groups, the altruistic motive exhibits higher estimates among the German consumers, supporting *Hypothesis 4a*. The biospheric motive however provides stronger estimates among the Spanish consumers, disproving our expectations in *Hypothesis 4b*. Among both consumer groups the biospheric motive concern is positively correlated with sustainable consumption, supporting Schultz (2001) who stated a consistently positively correlation. These results give evidence about differing consumption-leading motives between German and Spanish consumers and enable retailers to respond to local markets and consumer needs.

Table 4.4: Summary of hypotheses

Motive-based		
Hypothesis 4	Same level of importance between Germans and Spaniards	Partially supported
Hypothesis 4a	Germans allocate higher importance to altruistic motive	Supported
Hypothesis 4b	Germans allocate higher importance to biospheric motive	Not supported
Perception-based		
Hypothesis 5	Varied perception between Germans and Spaniards	Supported
Hypothesis 5a	Higher perceived availability among German consumers	Supported
Hypothesis 5b	Higher perceived visibility among Germans consumers	Supported

4.5.2 Perception-based results

Our analysis exhibits differing results among Spanish and German consumers regarding their perception of sustainable products in retailing, supporting *Hypothesis 5*. Taking into consideration the perceived visibility of sustainable products in retail stores, German consumers scored significantly ($p < .001$) higher on *sustainable products are visible in the retail store shelves* ($M =$

3.14, $SD = 1.59$) than Spanish consumers ($M = 2.64$, $SD = 1.36$) (see Table 4.5).¹¹ This supports *Hypothesis 5a* and suggests a higher visual appearance of sustainable products in German retail stores.

Table 4.5: Mean value comparison of perceived availability and visibility

	Spaniards (n=503)		Germans (n=486)		T value	p
	M	SD	M	SD		
Perceived visibility						
Sustainable products are visible in the retail store shelves	2.64	1.357	3.14	1.591	5.32	0.000***
Perceived availability						
Many retail stores offer sustainable products	2.17	1.138	3.33	1.521	13.52	0.000***
Retail stores offer a wide range of sustainable products	2.35	1.259	3.36	1.700	10.64	0.000***
I can buy sustainable products by all means	2.17	1.231	3.00	1.601	9.15	0.000***

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

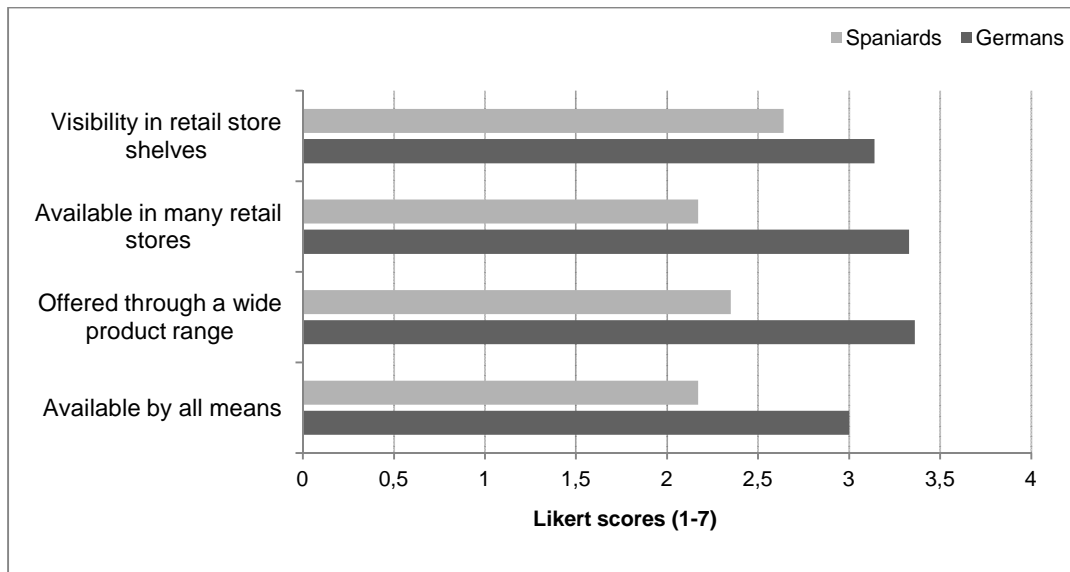
The p values were calculated with a degree of freedom of 989 (sum of both samples).

Further examination of the perceived availability of sustainable products demonstrates that, German consumers were more supportive of *the item many retail stores offer sustainable products* ($M = 3.33$, $SD = 1.52$ vs. $M = 2.17$, $SD = 1.14$ for Spanish consumers). In addition, German consumers scored significantly ($p < .001$) higher on *retail stores offer a wide range of sustainable products* ($M = 3.36$, $SD = 1.70$) than Spanish consumers ($M = 2.35$, $SD = 1.26$). Finally German consumers were also more likely to endorse the item *I can buy sustainable products by all means* ($M = 3.00$, $SD = 1.60$ vs. $M = 2.17$, $SD = 1.23$ for Spanish consumers) (see Figure 4.2). As German consumers are more supportive of the three items, representing the availability of sustainable products in retailing,

¹¹ More evidence is provided in Table 4.6 (Appendix).

Hypothesis 5b can fully be approved. Due to the perception deviations of the sustainable product offer in retailing among German and Spanish consumers, new interpretations about the sustainable market status in both countries can be made.

Figure 4.2: Perceived sustainable product offer by German and Spanish respondents



4.6 Conclusions

This chapter demonstrates varied perceptions of the sustainable product offer between German and Spanish consumers, since our results confirm a higher perceived visibility among the German consumers like we had hypothesized. As a consequence, we also stated a higher perceived availability of sustainable products in German retailing. These results emphasize our expectations about a higher existing environmental awareness among the German consumers due to a more developed sustainable market in Germany. Our findings support Papaoikonomou et al. (2011) who detected that the offer of sustainable products in Spanish retail is still in an early phase of development.

Regarding the personal motives leading to sustainable consumption, our results indicate that our structural equation model provided good fit for German

and for Spanish consumers and support Stern and Dietz's (1994) value basis theory, differentiating between altruistic, egoistic and biospheric motives. Our results suggest that in the first place, consumers of both countries buy sustainable products on the basis of the altruistic motive concern. In the second place, the egoistic motive influences the Spanish consumer in his purchase decision whereas no significant results were found among the German consumers. In the third place, the biospheric motive can be determined among both cultures as the weakest motive concern influencing purchase decisions. Observed as a whole, we conclude that Spanish as well as German consumers mainly buy sustainable products because of their impact on society. Concerns about the impact on the eco-system are inferior to the social impact.

Results suggest that consumption driving motives and especially consumer perception vary among the analyzed cultures. This supports the theory of De Mooij and Hofstede (2002), who stated large differences among the value systems of consumers in different European countries. Explanations for these circumstances can be versatile as many factors influence perception and environmental motives. Consumers might have different levels of environmental awareness and concern (Shrum et al., 1994). Probably, consumers are also skeptical toward the sustainable marketing of companies or maybe they do not believe in the effectiveness of their own environmental contribution. Finally, different information conditions could cause our different results.

4.7 Implications for practice and research

Interpreting our results, we suggest that retailers need to promote sustainable products especially in Spain to raise the consumer awareness of their sustainable performance. Doing so, retailers should focus especially on the social impact of their products. However, personal interests should not be forgotten either, especially among the Spanish consumers. Through special advertising efforts focusing on personal advantages such as money saving or personal health and a better visual product presentation, retailers possibly raise consumer awareness.

We believe that further research should focus on the external circumstances of German and Spanish consumers as their perception of sustainable products is not only influenced by their consumption motives. Further influential factors to be analyzed could be environmental awareness, market size or product communication. The analysis of the sustainable market in Spain would be especially reasonable, since we do not know whether the low perception is caused by a weaker sustainable product offer. Moreover, it may be worthwhile to investigate the pattern behind the displayed difference in consumption motives in Spain and Germany in more detail. It could be interesting to find out if these consumption motives correlate with specific personality traits or other socio-demographic characteristics. Research in this area may be promising for retailers who try to segment their customer base and help them to market their sustainable products by addressing the specific needs and particular consumption motives of their customers.

4.8 Appendix

Table 4.6: Independent samples test for perceived product offer between German and Spanish respondents

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper	
Sustainable products: Visibility	Equal variances assumed	17.546	.000	-5.320	987	.000	-.500	.094	-.684	-.315
	Equal variances not assumed			-5.306	951.944	.000	-.500	.094	-.685	-.315
Sustainable products: Product range	Equal variances assumed	71.936	.000	10.642	987	.000	-1.010	.095	-1.196	-.824
	Equal variances not assumed			10.589	893.072	.000	-1.010	.095	-1.197	-.823
Sustainable products: Store quantity	Equal variances assumed	66.777	.000	13.517	987	.000	-1.152	.085	-1.319	-.985
	Equal variances not assumed			13.451	897.597	.000	-1.152	.086	-1.320	-.984
Sustainable products: By all means	Equal variances assumed	50.585	.000	-9.147	987	.000	-.829	.091	-1.007	-.651
	Equal variances not assumed			-9.107	910.358	.000	-.829	.091	-1.008	-.650

Figure 4.3: Structural equation model for German respondents

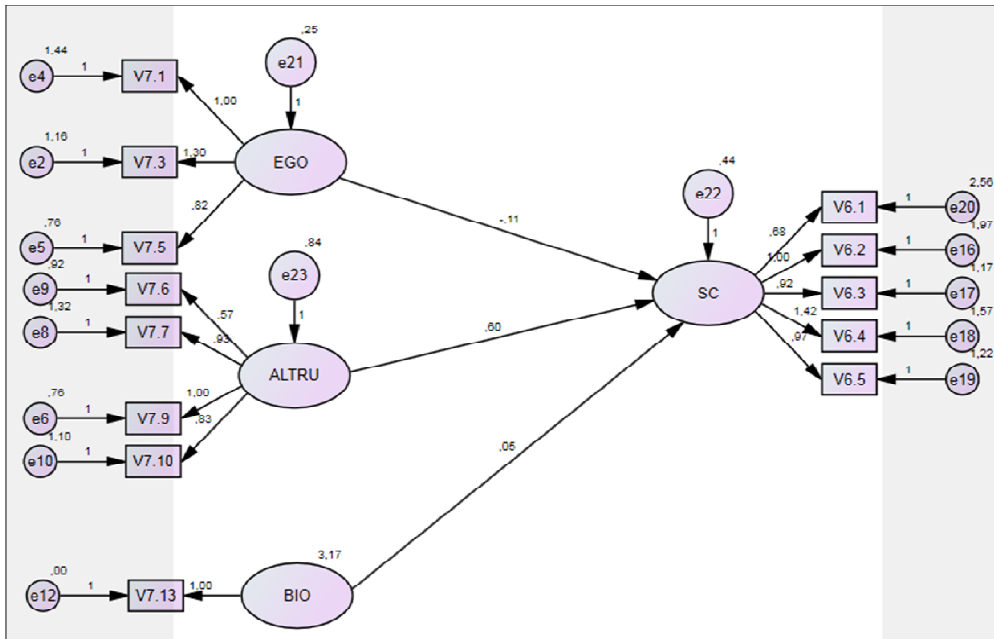


Table 4.7: Regression weights for German respondents

			Estimate	S.E.	C.R.	P	Label
SC	<---	EGO	-.115	.132	-.868	.385	W17
SC	<---	ALTRU	.601	.085	7.110	***	W18
SC	<---	BIO	.052	.024	2.111	.035	W19
V7.3	<---	EGO	1.303	.416	3.135	.002	W1
V7.1	<---	EGO	1.000				
V7.5	<---	EGO	.822	.239	3.446	***	W4
V7.9	<---	ALTRU	1.000				
V7.7	<---	ALTRU	.926	.097	9.575	***	W6
V7.6	<---	ALTRU	.573	.070	8.146	***	W7
V7.10	<---	ALTRU	.831	.088	9.498	***	W8
V7.13	<---	BIO	1.000				
V6.2	<---	SC	1.000				
V6.3	<---	SC	.919	.111	8.277	***	W13
V6.4	<---	SC	1.418	.159	8.895	***	W14
V6.5	<---	SC	.973	.116	8.371	***	W15
V6.1	<---	SC	.679	.119	5.702	***	W16

*** p < 0.01, ** p < 0.05, * p < 0.1

Figure 4.4: Structural equation model for Spanish respondents

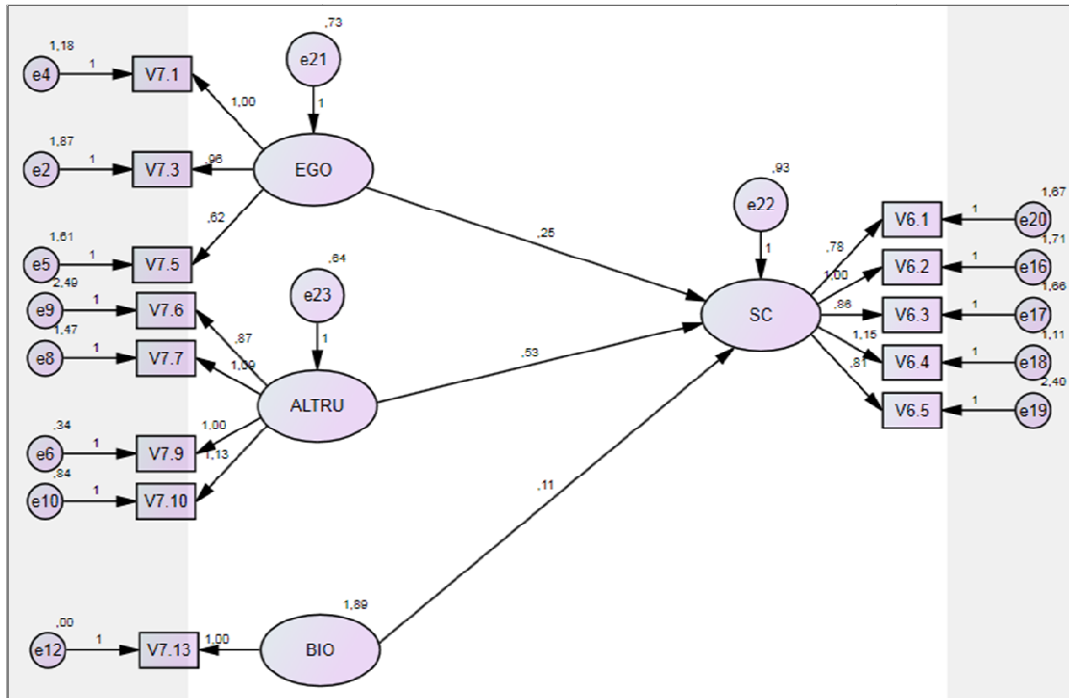


Table 4.8: Regression weights for Spanish respondents

		Estimate	S.E.	C.R.	P	Label
SC	<--- EGO	.251	.094	2.681	.007	W17
SC	<--- ALTRU	.532	.086	6.212	***	W18
SC	<--- BIO	.111	.039	2.845	.004	W19
V7.3	<--- EGO	.957	.218	4.394	***	W1
V7.1	<--- EGO	1.000				
V7.5	<--- EGO	.623	.142	4.401	***	W4
V7.9	<--- ALTRU	1.000				
V7.7	<--- ALTRU	1.095	.102	10.761	***	W6
V7.6	<--- ALTRU	.873	.113	7.709	***	W7
V7.10	<--- ALTRU	1.127	.094	11.964	***	W8
V7.13	<--- BIO	1.000				
V6.2	<--- SC	1.000				
V6.3	<--- SC	.861	.085	10.080	***	W13
V6.4	<--- SC	1.147	.099	11.646	***	W14
V6.5	<--- SC	.806	.092	8.764	***	W15
V6.1	<--- SC	.776	.081	9.533	***	W16

*** p < 0.01, ** p < 0.05, * p < 0.1

Table 4.9: Model fit summary for German sample

CMIN					
Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	28	211.246	63	.000	3.353
RMR, GFI					
Model	RMR	GFI	AGFI	PGFI	
Default model	.166	.934	.905	.647	
Baseline Comparisons					
Model	NFI	RFI	IFI	TLI	CFI
Default model	.789	.739	.842	.802	.840
RMSEA					
Model	RMSEA	LO 90	HI 90	PCLOSE	
Default model	.072	.062	.083	.000	

Table 4.10: Model fit summary for Spanish sample

CMIN					
Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	28	299.053	63	.000	4.747
RMR, GFI					
Model	RMR	GFI	AGFI	PGFI	
Default model	.199	.913	.874	.632	
Baseline Comparisons					
Model	NFI	RFI	IFI	TLI	CFI
Default model	.779	.727	.817	.771	.815
RMSEA					
Model	RMSEA	LO 90	HI 90	PCLOSE	
Default model	.088	.078	.098	.000	

Chapter 5

Perception of corporate sustainable activities and communication¹²

¹² This chapter is based on Stolz et al. (2013).

5.1 Introduction

Companies need to invest in CSR behavior in order to generate favorable stakeholder attitudes and better support behaviors such as purchase or the investment in the company. Moreover the intention is to build corporate image and strengthen stakeholder-company relations (Du et al., 2010). However, besides the rising costs, CSR can also be a source of opportunity, innovation and a competitive advantage (Porter and Kramer, 2006). Besides the opportunities corporate sustainable communication offers, it can also cause reputational risks (Dawkins, 2004) because although stakeholders require more information about the corporate sustainable activities, they are also quickly exhausted when companies promote their CSR efforts too aggressively (Du et al., 2010). Companies often do not satisfy the stakeholders' requirements sufficiently which explains why they do not get full credit for their sustainable behavior (Dawkins, 2004). Consumer perception varies among cultures. This may have various reasons as consumer perception is influenced by product offer, by consumer knowledge and also by product information (De Pelsmacker and Janssens, 2007). "Need for more research on cultural differences in consumer perceptions and consumer behavior is apparent" (Hyllegard et al., 2005), as consumer behavior varies among European countries, reflected in consumption and product use (De Mooij and Hofstede, 2002).

This chapter focuses on the consumers' perception of corporate sustainable behavior in Germany and in Spain, measuring perceived corporate activities and perceived corporate communication about sustainability issues. Comparing German and Spanish consumers seems to be relevant because of the expected approximation among European citizens regarding their consumption behavior and the differing cultural values among Germans and Spaniards (Hofstede, 1980). Similar characteristics of the countries include unification through the European Union; Germany since 1952 and Spain since 1986. Despite sharing the European culture, both countries exhibit fundamental differences, which might

influence people's perception. In contrast to Spain, Germany always tended to be a more industrialized country. This is in line with Loxley (1998), who considered Northern countries to be more industrialized than Southern countries. Besides, Wood suggests (1995) that there are important ethical differences between highly industrialized countries of the North and less industrialized countries of the South. Polonsky et al. (2001) add that Southern European countries do not exhibit the ethical characteristics of the Northern countries, describing Southern countries as "less" developed in regards to environmental sustainable issues. This cross-national comparison is an extension to previous studies comparing consumers' attitudes between Southern and Northern European countries as it exhibits the level of corporate communication about sustainable activities in both countries. Considering not only culture to be an influential factor on perception, we also analyze the effect of socio-demographic factors such as age and gender. This chapter aims to:

- (1) Examine the impact of country, gender and age on perceived corporate sustainable behavior.
- (2) Find more characteristics of consumers who support corporate sustainable behavior by paying more for sustainable products.

Companies have a special interest in further research as consumers react sensitively to corporate sustainable behavior. Especially, expanding European companies are addressed, who need to be sensitive to local consumer needs and selected market conditions (Hyllegard et al., 2005). The level of consumer responsibility is an indicator of the efficiency of a company's communication about sustainable activities. Findings aim to help especially multinational companies to improve their information system, segment their customer base and define their marketing strategy. Our research is expected to shed light on the aspects companies need to focus on to raise the consumer's attention.

5.2 Literature Review

5.2.1 Corporate sustainable behavior

Corporate sustainable behavior includes the activities companies undertake to act friendly towards the environment but also their communication towards the companies' stakeholders. Corporate sustainable activities are manifold and can be realized through initiatives, for instance. Initiatives mean company involvement in charitable causes such as donations. Companies donate every year millions of dollars to nonprofit organizations (Sen and Bhattacharya, 2001; Lichtenstein et. al, 2004). However, this kind of sustainability is social-based. In regards to ecological behavior, Hart (1997) recommends three steps to implement sustainability within a company such as the avoidance of air pollution, the introduction of clean and highly developed technologies, and a complete product responsibility. Full product responsibility can be achieved by responsible acting along the supply chain. "The supply chain has been traditionally defined as a one-way, integrated manufacturing process wherein raw materials are converted into final products, then delivered to customers" (Beamon, 1999). Environmental sustainable acting along the supply chain can be implemented by the companies through the use of renewable raw materials obtained from nature, the production through efficient and modern production facilities, smart distribution systems avoiding pollution through transportation, consumer hints about a careful product use and disposal through recycling. Sustainability along the value chain is also called cradle-to-cradle approach.

Corporate communication is an important tool for a company to inform stakeholders about their activities and products. Stakeholders react by not just buying more products but also by supporting the company through investing in the company or seeking employment (Sen et al., 2006). Through yearly published sustainability reports, companies usually inform the stakeholders about results and progress of their ecologic, economic and social achievements. Published information provides a basis for the ratings and rankings which are

published by non-governmental organizations (NGOs). This information however does not really affect the consumer in his purchase decision but even more other stakeholders such as government policies, NGOs or investors. In order to communicate with consumers, companies choose a diverse choice of media channels through which marketing communications can be sent to customers. Those include traditional communication ways such as television, mail or telemarketing but also more recent communication ways such as internet banners, e-mail, blogs or mobile phone communications (Danaher and Rossiter, 2011).

Mohr and Webb (2005) state that many companies only inform about the good things they are doing, which is why consumer trust of corporate communications is low. Moreover, Webb and Mohr (1998) mention that consumers develop more confidence if companies demonstrate a long-term commitment to an issue such as the reduction of environmental damage or to a nonprofit organization. As consumer perception is a key factor to raise the benefit, companies especially need to know what to communicate (message content) and where to communicate (message channel) (Du et al., 2010).

5.2.2 Perception of corporate behavior

A positive perception of sustainable corporate activities is of special interest for a corporation as it needs to satisfy the special needs of its stakeholders. Consumer perception affects the image of brands and firms, their financial performance, and the propensity of consumers to buy specific brands and patronize certain retailers (Luo and Bhattacharya, 2006). Perception influences the consumers' attitudes towards the company (Lichtenstein et al., 2004) and impacts on the consumer behavior (De Pelsmacker and Janssens, 2007). Besides, Mohr and Webb (2005) state that perceived communication influences the purchase behavior of the consumer. As previous research demonstrates, especially in developed countries, consumers pay special attention to the

environmental behavior of companies (Wagner et al., 2009). Therefore marketing programs are launched by companies to raise the consumer awareness about their sustainable product offer. Still, it is important to spread positive information about sustainability as Sen and Bhattacharya (2001) found out that negative information about CSR has stronger effects on the consumer than positive information.

Lichtenstein et al. (2004) quote that when a company undertakes a CSR activity to the extent that the initiative signals to consumers that the company has traits that overlap with their self-concept, consumers have higher degrees of identification with the company and, in turn, are more likely to support the company. Therefore, companies try to minimize skepticism through a better CSR communication. Consumers want to know about the sustainable activities of the company they buy their products from but they also quickly become skeptical if the CSR strategies are too aggressive (Du et al., 2010). Too much communication about CSR activities could become contra productive (Arvidsson, 2010). The company's credibility might get hurt if a too high CSR profile is disclosed, which is defined as a self promoters' paradox by Ashforth and Gibbs (1989). Consumers act more positively to company's sustainable activities if they receive their information from neutral sources such as independent organizations (Simmons and Becker-Olsen, 2006). Skepticism can also be reduced if the company discloses a transparent and verifiable CSR communication, reporting about progress and failures (Arvidsson, 2010).

Consumer perception varies among cultures. Following the definition of Kroeber and Kluckhohn (1952), we define culture as a consensus of the behavioral patterns of many individuals. This consensus is based on larger social units such as countries, comprehensive language communities or cross-national units such as the European culture.

5.2.3 Cultural impact

Previous experience in practice has shown that the impact of culture is far-reaching. Companies decided to adapt centralizing strategies in order to save money but a contrary effect was achieved as a centralized control leads to less local sensitivity (De Mooij and Hofstede, 2002). Companies must be sensitive to local consumer needs and selected market conditions (Koopman, 2002, Keillor et al., 2001).

The appearing single European market in 1992 and the start of a new Europe with a single currency made marketers believe that consumers of the member countries become more similar through the consumption of the same products and similar television programs (De Mooij and Hofstede, 2002). However, consumer behavior still differs to a huge extent between the European consumers (Hyllegard et al., 2005) caused by the different values, leading to consumption. Those consumer-leading values are based on the historical development of the particular countries and cannot be changed in a relatively short period of time. Economic systems in Europe converge increasingly but however there exists no evidence for converging values. In contrast, consumption and product use reflect the diverging consumer behavior among the member countries (De Mooij and Hofstede, 2002). Schmidt and Pioch (1994) underline that the “Euro-consumer” has not yet arrived.

5.3 Theory and Hypotheses

In the following section, we will discuss our hypotheses relating to the perceived corporate sustainable communication. Sustainable consumer perception is influenced by several factors such as product offer, sustainable knowledge or information about sustainability (De Pelsmacker and Janssens, 2007). Papaoikonomou et al. (2011) found out that compared to Germany, the Spanish ethical market is still in the early phase of development. Existing social trend groups such as the LOHAS (“Lifestyle of Health and Sustainability”)

emphasize the advanced sustainable market and the consumer's increasing sensitivity for sustainable consumption in Germany. Maignan (2001) underlines a high sensitiveness among the German consumers.

Carrero et al. (2010) name three obstacles which prevent the development of environmentally sustainable consumption in Spain, firstly the missing motivation, secondly additional expenses, and finally the missing information, considering this last factor to be the most important obstacle. Consumers are not able to evaluate the ethical attributes of a product, if the company does not inform about the product's social and ethical consequences. There are no specific regulations in Spain about the use or misuse of accompanying information on the products which avoids that the consumer is able to complain about a company's behavior. This leads us to the following hypotheses:

Hypothesis 6a: German consumers exhibit a higher perception of corporate sustainable activities than Spanish consumers.

Hypothesis 6b: German consumers exhibit a higher perception of corporate sustainable communication than Spanish consumers.

Previous studies investigating the linkage between gender and environmental issues have found significant relationships but indicate different results. Balderjahn (1988) for example found out that the relationship between environmentally conscious attitudes and the use of sustainable products was more intensive among men than among women. In contrast, Banerjee and McKeage (1994) suggest that women tend to be more environmentally conscious than men. Bageac et al. (2011) observes in previous studies a more ethical behavior among women as well. Diamantopoulos et al. (2003) suggest differentiating between environmental knowledge and environmental behavior, measuring the gender effect. They believe that women exhibit higher environmental behavior and a higher concern, whereas males tend to have a better environmental knowledge. Supporting Barreiro et al. (2002) we believe

that people with higher environmental concern also tend to have a better level of ecological knowledge. This assumption leads us to the following hypotheses:

Hypothesis 7a: Female consumers exhibit higher perceived corporate sustainable activities than male consumers.

Hypothesis 7b: Female consumers exhibit higher perceived corporate sustainable communication than male consumers.

Several prior studies have analyzed linkages between age and sustainable consciousness but mostly with non-significant relationships, indicating that younger people exhibit higher levels of knowledge (Diamantopoulos et al. 2003). In contrast, De Pelsmacker et al. (2005) identified middle-aged consumers between 31 and 44 years as most sensitive, analyzing the perception towards Fair Trade as an example of social responsibility. An explanation for this could be that consumers following the modern existing Lifestyle of health and sustainability (LOHAS) (Kotler, 2011) belong to this aging group to a high extent. LOHAS are enlightened consumers who search for individual but also social and environmental benefits when making their purchase (Carrero et al., 2010). Environmental behavior expressed through responsible purchases often cause additional expenses (Uusitalo and Oksanen, 2004) which can only be carried by people with a higher income level, which are mainly represented by middle-aged. We believe that these facts also influence the perception level of corporate activities and corporate communication. Defining the existing aging group between 35 and 49 years as middle-aged, we propose the following hypotheses:

Hypothesis 8a: Consumers between 35 and 49 years exhibit higher perceived corporate sustainable activities than other aging groups.

Hypothesis 8b: Consumers between 35 and 49 years exhibit higher perceived corporate sustainable communication than other aging groups.

No hypotheses for the upcoming CHAID analysis were established, as it turns out to be difficult to predict the characteristics of consumers being willing to pay more for sustainability, considering the fact that over 70 variables are included in the analysis.

5.4 Methodology

Firstly, we average the activity-representing items: *take the protection of the environment seriously, try to reduce pollution of their products, offer sufficiently sustainable products in their range, focus on the development process of sustainable products* and the communication-representing items *advertise their sustainable products sufficiently in the media, inform about the environmental impact of their products*, to compare the mean values of the consumers' perception of corporate sustainable behavior. A student *t*-test is run to determine the differences for the perception-based items among the countries. The analysis is based on Maignan (2001) who analyzed the perception of corporate responsible activities, contrasting consumers in Germany, France and the United States.

Secondly, by the use of two repeated measures ANOVA, we measure the influence of socio-demographic variables, using age and gender as independent variables and the six perception-based variables as dependent variables. The age variable is classified into the four categories, 18-25 years, 26-34 years, 35-49 years, and 50 years or older (e.g. Swaidan, 2011). Results of this analysis are supposed to discover differences in the perceived corporate sustainable activities between the four aging groups as well as between male and female in both countries.

Thirdly a CHAID analysis is run, taking into account all the items of the questionnaire in order to create a full profile of German and Spanish consumers being willing to pay more for sustainable products. The analysis is based on the item “I am willing to pay a higher price for a sustainable product” (v6.1) being part of the question “What actions will you take to act sustainable during your purchase?”. Responses usually being evaluated on a seven-point Likert-type scale ranging from strongly disagree (1) to strongly agree (7) were evaluated on a dichotomic scale, differentiating between “wouldn’t pay more” and “would pay more”. Respondents who agreed on the Likert-scale (5-7) with the payment of higher prices were categorized as “would pay more”. Respondents who disagreed on paying higher prices (1-3) were categorized as “wouldn’t pay more”. Respondents who answered with “indifferent” (4) were excluded from the analysis as their profile is of no special interest for companies. Besides a separate profile of the German and the Spanish consumer, an overall profile was created in order to find out about similarities or differences to the national profiles. The analyses are run with SPSS v20.

5.5 Results

5.5.1 Perception-based results

Averaging the corporate behavior-based items, we find that German respondents score significantly higher on *take the protection of the environment seriously* ($p < .001$), *offer sufficiently sustainable products in their range* ($p < .001$), *focus on the development process of sustainable products* ($p < .01$) than Spaniards (see Table 5.1).

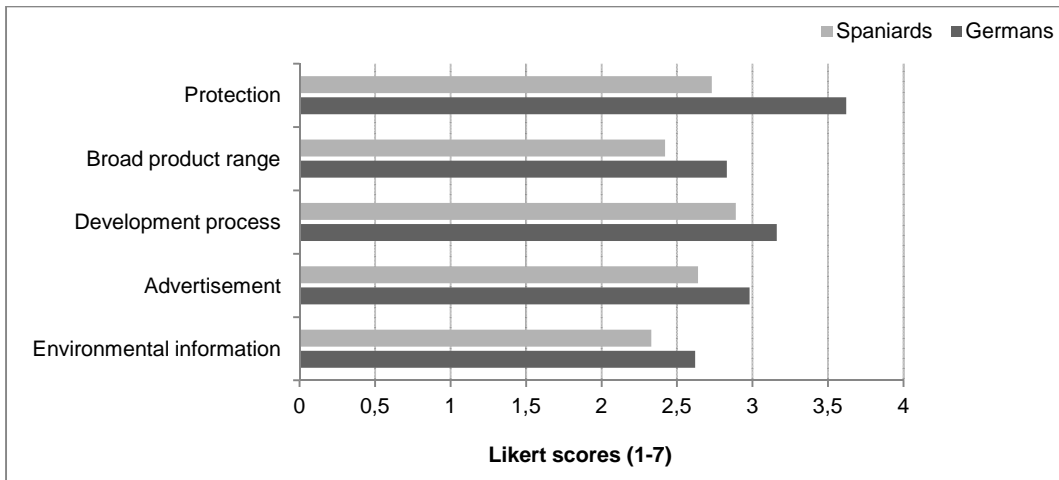
Table 5.1: Mean value comparison for perceived corporate behavior between German and Spanish respondents

Companies in my country...	Spaniards (n=503)		Germans (n=486)		T value	p
	M	SD	M	SD		
Perceived corporate activities						
...take the protection of the environment seriously.	2.73	1.291	3.62	1.442	-10.18	0.000***
...try to reduce pollution of their products.	2.79	1.347	3.19	1.374	-4.55	n.s.
...offer sufficiently sustainable products in their range.	2.42	1.119	2.83	1.286	-5.33	0.002***
...focus on the development process of sustainable products.	2.89	1.265	3.16	1.373	-3.19	0.018**
Perceived corporate communication						
...advertise their sustainable products sufficiently in the media.	2.64	1.247	2,98	1.388	-4.12	0.025**
...inform about the environmental impact of their products.	2.33	1.268	2.62	1.422	-3.36	0.000***

*** p < 0.01, ** p < 0.05, * p < 0.1

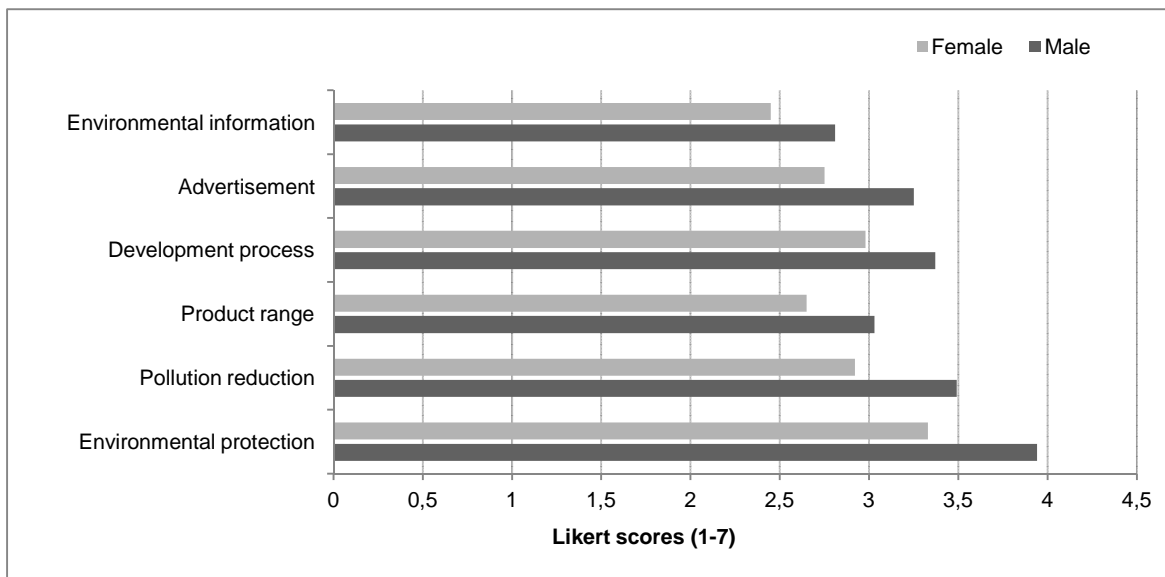
A non-significant difference was detected for *try to reduce pollution of their product* ($p > .05$). Due to one non-significant relationship, *Hypothesis 6a* can only be partially approved. Consistent with *Hypothesis 6b*, we find that German respondent score significantly higher on: *advertise their sustainable products sufficiently in the media* ($p < .05$), *inform about the environmental impact of their products* ($p < .001$) when averaging the corporate communication-based items (see Figure 5.1).

Figure 5.1: Perceived corporate activities and communication by German and Spanish respondents



Among both consumer groups, gender had highly significant effects for every item as males scored significantly higher ($p < 0.01$) on every single item.¹³ Among the German respondents, the greatest difference between men and women was found for the activity-based item: *take the protection of the environment seriously* (see Figure 5.2).¹⁴

Figure 5.2: Gender effects for perceived corporate behavior on German respondents

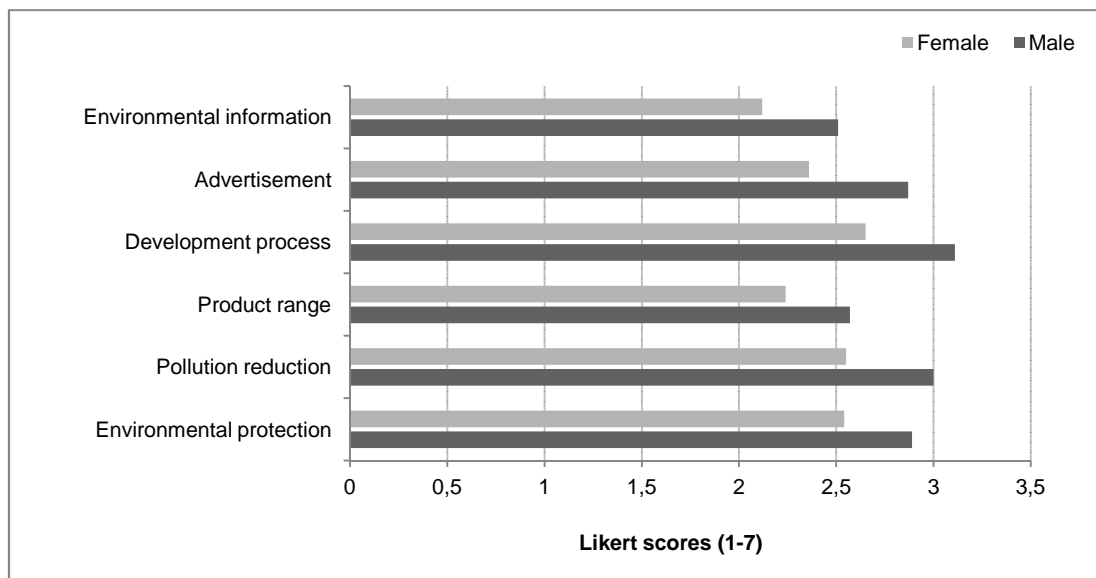


¹³ Further evidence is provided in Table 5.4 and Table 5.5 (Appendix).

¹⁴ Further evidence is provided in Table 5.6 and Table 5.7 (Appendix).

Among the Spaniards, the highest difference between men and women was scored for the communication-based item: *advertise their sustainable products sufficiently in the media* (see Figure 5.3). Due to the lower scores among the female consumers in both consumer groups for all items, our *Hypothesis 7a* and *Hypothesis 7b*, stating that women exhibit higher perceived corporate sustainable activities and higher perceived communication than men cannot be supported.

Figure 5.3: Gender effects for perceived corporate behavior on Spanish respondents



Cross-national differences were detected for the variable age. Among the Spanish consumers, age had no significant effect for all the variables. Thus, results based on age cannot be interpreted in the Spanish sample.¹⁵ Among the German consumers, young consumers were detected to score the significant highest values for the variables *take the protection of the environment seriously* (26-35 years), *advertise their sustainable products sufficiently in the media* (18-25 years), *inform about the environmental impact of their products* (18-25 years) and *offer sufficiently sustainable products in their range* (18-25 years). No significant relationships were observed for the items *try to reduce pollution of*

¹⁵ More evidence is provided in Table 5.8 and Table 5.9 (Appendix).

their products and focus on the development process of sustainable products (see Table 5.2).¹⁶

¹⁶ More evidence is provided in Table 5.10 and Table 5.11 (Appendix).

Table 5.2: Age and gender effects for perceived corporate behavior on German and Spanish respondents

	Country	Age				Gender	
		18-25	26-34	35-49	>50	Male	Female
Perceived corporate activities							
Companies take the protection of the environment seriously.	GER	3.72**	3.79**	3.21**	3.42**	3.94***	3.33***
	ESP	2.45	2.60	2.78	2.85	2.89***	2.54***
Companies try to reduce pollution of their products.	GER	3.31	3.20	2.92	3.28	3.49***	2.92***
	ESP	2.59	2.65	2.82	2.99	3.00***	2.55***
Companies offer sufficiently sustainable products in their range.	GER	3.06*	2.84*	2.49*	2.80*	3.03***	2.65***
	ESP	2.36	2.29	2.40	2.68	2.57***	2.24***
Companies focus on the development process of sustainable products.	GER	3.24	3.19	2.93	3.26	3.37***	2.98***
	ESP	2.73	2.84	2.89	3.03	3.11***	2.65***
Perceived corporate communication							
Companies advertise their sustainable products sufficiently in the media.	GER	3.16*	3.08*	2.64*	2.82*	3.25***	2.75***
	ESP	2.45	2.61	2.67	2.64	2.87***	2.36***
Companies inform about the environmental impact of their products.	GER	2.72*	2.73*	2.25*	2.57*	2.81***	2.45***
	ESP	2.27	2.24	2.29	2.58	2.51***	2.12***

*** p < 0.01, ** p < 0.05, * p < 0.1

Table 5.3: Summary of hypotheses

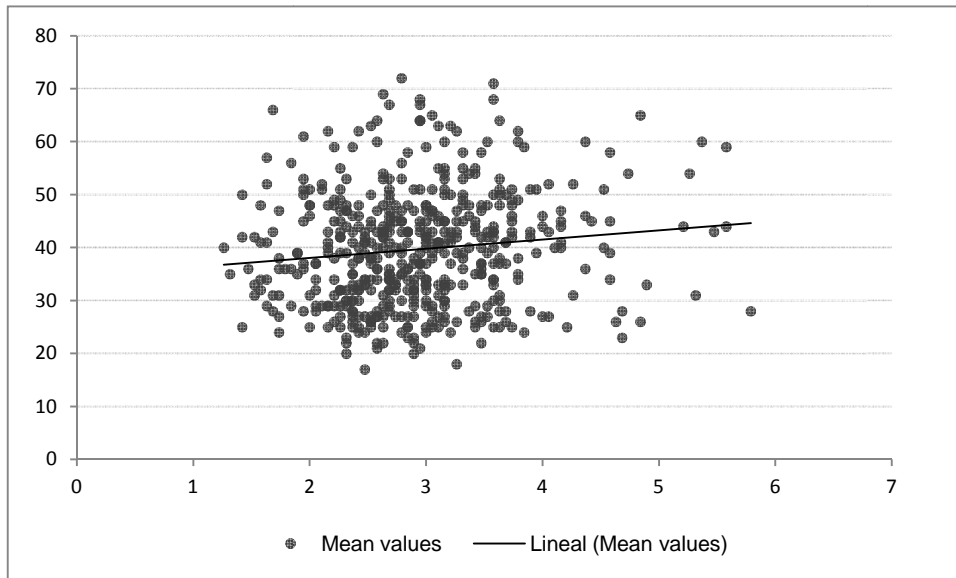
Culture-based		
Hypothesis 6a	German consumers exhibit a higher perception of corporate sustainable activities than Spanish consumers.	Partially supported
Hypothesis 6b	German consumers exhibit a higher perception of corporate sustainable communication than Spanish consumers.	Supported
Gender-based		
Hypothesis 7a	Female consumers exhibit higher perceived corporate sustainable activities than male consumers.	Not supported
Hypothesis 7b	Female consumers exhibit higher perceived corporate sustainable communication than male consumers.	Not supported
Age-based		
Hypothesis 8a	Consumers between 35 and 49 years exhibit the highest perceived corporate sustainable activities.	Not supported
Hypothesis 8b	Consumers between 35 and 49 years exhibit the highest perceived corporate sustainable communication.	Not supported

In consequence, our *Hypothesis 8a* and *Hypothesis 8b*, stating that consumers between 35 and 49 years exhibit higher perceived corporate sustainable activities and higher perceived communication than other aging groups cannot be supported (see Table 5.3). However, in order to predict a tendency on how age impacts on perceived corporate sustainability, a mean value of all the perception-based items from the questionnaire was quantified, including the factors perceived communication (*quality, frequency, presentation* and *credibility*), perceived availability (*visibility, product range, store quantity* and *circumstances*), perceived quality and prize of products (*acceptable prize, average prize, adaption, high quality* and *high standard*) as well as perceived companies' *environmental protection, advertisement, product information, environmental pollution, product range* and *sustainable development*.¹⁷ Figure

¹⁷ Measured items refer to the questions 8 and 9 of the questionnaire.

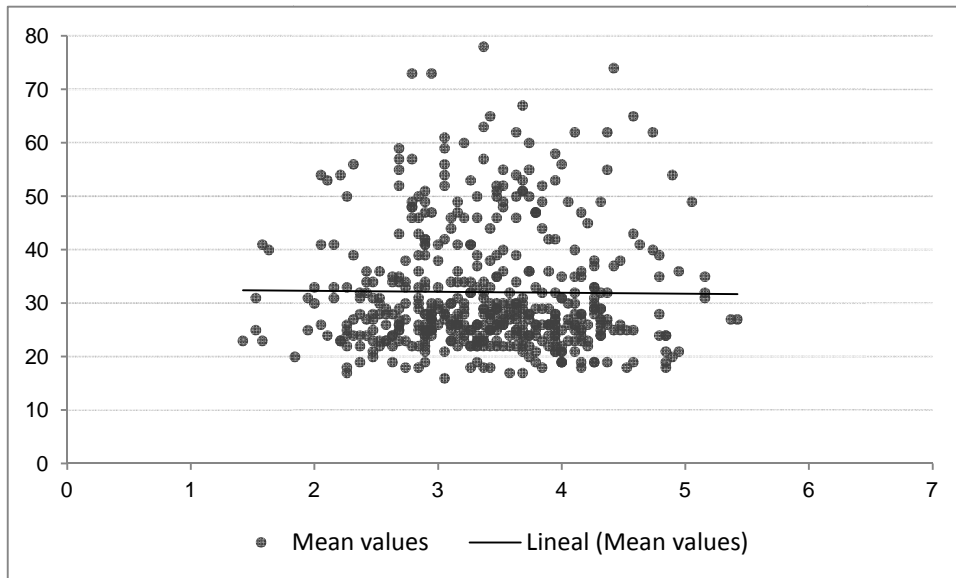
5.4 shows an increasing straight line for the effect of age on the answering behavior of the Spanish respondents.

Figure 5.4: Mean value distribution for relation between age and perceived corporate sustainability among Spanish respondents



Results imply that consumers tend to respond more positively towards corporate behavior the older they get. This finding is contrary to the results concerning perceived corporate activities, where age did not significantly influence the answering behavior. An almost horizontal straight line is detected, when measuring the impact of age on the answering behavior among the German consumers (see Figure 5.5). Results imply that age has basically no effect on the perception of corporate behavior. This finding is also contrary to our expectations, as age tuned out to be influencing on perceived corporate activities, identifying young consumers to value more positively.

Figure 5.5: Mean value distribution for relation between age and perceived corporate sustainability among German respondents

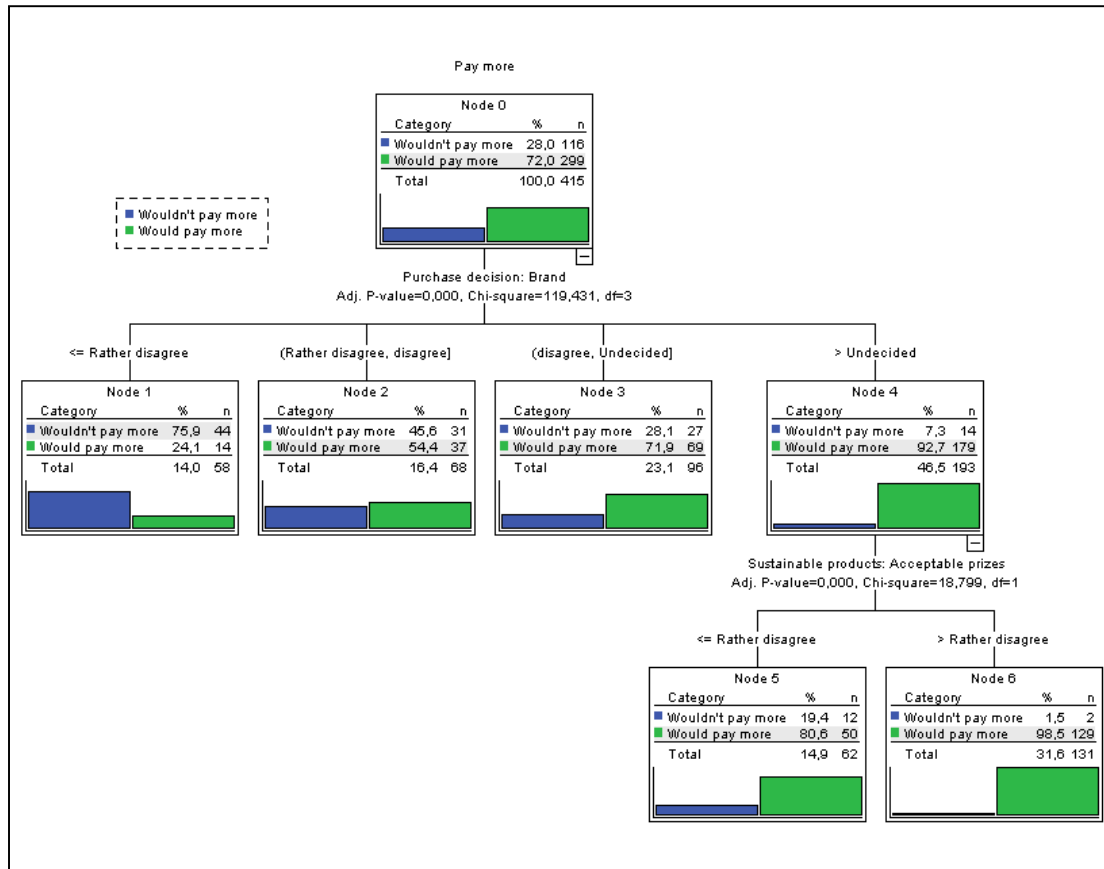


5.5.2 Characteristics-based results

The CHAID results show that first of all 299 respondents (72 percent) would pay a higher price for sustainable products, whereas 116 respondents (28 percent) are not willing to pay more. Spanish consumers who are willing to pay more attach a high importance to the product brand (see Figure 5.6). A total of 179 of 193 of the respondents (92.7 percent) who evaluated higher than undecided (4) agree on *the brand of the product* answering the question “how important are the following aspects when making a decision on what products to buy?”. Only 14 people (7.3 percent), attaching high importance to brands would not pay more for sustainable products. Furthermore, 129 of 131 respondents (98.5 percent) who evaluated higher than rather disagree (2) on *sustainable products have acceptable prices* would be willing to pay higher prices. This implies that prices can be higher but they need to be reasonable. The Spanish CHAID model exhibits an overall percentage of 79.3 percent (see Table 5.13).¹⁸

¹⁸ More evidence is provided in Table 5.12 (Appendix).

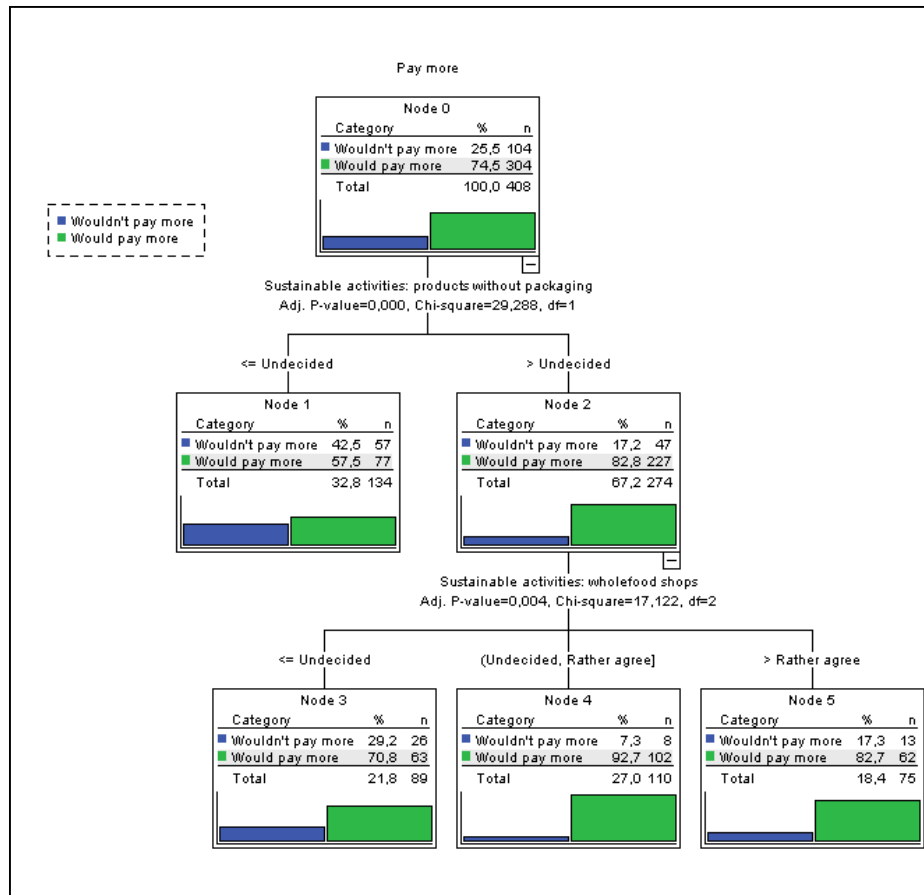
Figure 5.6: Characteristics of Spanish respondents willing to pay a higher price



CHAID results for German consumers show that 304 respondents (74.5 percent) would pay more, whereas 104 respondents (25.5 percent) would not pay more for sustainable products (see Figure 5.7). A total of 274 of the 408 respondents evaluated higher than undecided (4) on *I buy products without packaging* answering the question: “what actions will you take to act sustainable during your purchase?”. Of them, 227 respondents (82.8 percent) would be willing to pay more for sustainability. A total of 110 of the 274 respondents evaluated between undecided (4) and rather agree (6) on *I buy products in organic stores* also answering the question “what actions will you take to act sustainably during your purchase?” of which 102 consumers would pay a higher price. Evaluating higher than rather agree (6), 62 of 75 respondents (82.7

percent) would pay more for sustainability. The German CHAID model exhibits an overall percentage of 74.5 percent (see Table 5.15).¹⁹

Figure 5.7: Characteristics of German respondents willing to pay a higher price



CHAID results for the overall consumer include the answers of 820 respondents (see Figure 5.8). Remaining 600 respondents (73.3 percent) declared to be willing to pay more for sustainable products. Of them, 443 respondents evaluated the *importance of the product brand when making a purchase decision* higher than undecided (4), being in line with the Spanish consumer. Of them, 385 respondents (86.9 percent) would be willing to pay more. Remaining 210 respondents declared between undecided (4) and rather agree (6) on the *responsibility of NGOs towards environment* of which 194 respondents (92.4 percent) agreed on paying a higher price. Finally 149 respondents evaluated

¹⁹ More evidence is provided in Table 5.14 (Appendix).

higher than undecided (4) on *buying products without packaging* of which 144 respondents (96.6 percent) would pay a higher price for sustainable products, supporting a characteristic of the German consumer. The general CHAID model exhibits an overall percentage of 77.8 percent.²⁰

5.6 Conclusion

This chapter sought to analyze the consumer perception of corporate behavior and information regarding sustainability issues and aims to identify the consumers, being willing to pay more for sustainable products. Furthermore, those consumers were aimed to be identified, exhibiting the highest perception regarding their demographic characteristics in the analyzed countries.

Results indicate that perceived corporate sustainable activities vary between the analyzed nations, as we identify a higher perception of sustainable information and mostly a higher perception of corporate sustainable behavior among the German consumers. Compared to other aging groups between the Germans, over all young people between 18 and 25 years and between 26 and 34 years perceive companies to be more responsible. Age did not affect the perception of sustainable behavior among the Spanish respondents. Gender, however did affect the response behavior as male consumers perceived higher values for all the items representing corporate sustainable behavior and communication than women. This result was not expected as a majority of previous studies identified women to be more conscious towards environmental issues. Based on these outcomes, the expectation was that women are more alert when it comes to the communication of sustainable behavior. Explications for the discovered facts can be versatile as companies might have a bad reputation, they might have a too aggressive or not credible communication, or they address overall other target groups. Most probably companies' activities are not

²⁰ More evidence is provided in Table 5.16 and Table 5.17.

accomplished sufficiently and not even communicated, which can lead in some cases to a bad reputation.

Identifying the consumer, who is willing to pay more for sustainability, Spanish consumers were characterized as brand- and acceptable price-oriented. This implies, that Spanish consumers, who buy products because of their brands and who believe that sustainable products have acceptable prices would be willing to afford additional expenses for sustainable products. Being acceptable-price oriented also implies that the margin, Spanish consumers would be willing to pay more is quite small. Germans respondents can be characterized as more eco-friendly. Basically those consumers would pay a higher price, buying products without packaging and purchasing in organic stores. These results do not explore the margin Germans would be willing to pay more for sustainability and differ considerably from the Spanish respondents. The general consumer can be characterized as a mixture of both, considering product brand and the purchase of products without packaging as important criteria. These results segment consumers in both countries in particular categories, offering marketers the opportunity to adapt their marketing strategies to brand-oriented consumers in Spain and to eco-friendly oriented consumers in Germany.

5.7 Appendix

Table 5.4: Descriptive results for gender differences regarding corporate behavior in Spanish sample

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Corporate behavior: Environmental protection	Men	271	2.89	1.217	.074	2.75	3.04	1	7
	Women	232	2.54	1.351	.089	2.36	2.71	1	7
	Total	503	2.73	1.291	.058	2.62	2.84	1	7
Corporate communication: Advertisement	Men	271	2.87	1.296	.079	2.72	3.03	1	7
	Women	232	2.36	1.127	.074	2.22	2.51	1	6
	Total	503	2.64	1.247	.056	2.53	2.75	1	7
Corporate communication: Product information	Men	271	2.51	1.333	.081	2.35	2.67	1	7
	Women	232	2.12	1.156	.076	1.97	2.27	1	6
	Total	503	2.33	1.268	.057	2.22	2.44	1	7
Corporate behavior: Pollution reduction	Men	271	3.00	1.332	.081	2.84	3.16	1	7
	Women	232	2.55	1.325	.087	2.38	2.72	1	7
	Total	503	2.79	1.347	.060	2.68	2.91	1	7
Corporate behavior: Product range	Men	271	2.57	1.139	.069	2.44	2.71	1	6
	Women	232	2.24	1.070	.070	2.10	2.38	1	7
	Total	503	2.42	1.119	.050	2.32	2.52	1	7
Corporate behavior: Sustainable development	Men	271	3.11	1.229	.075	2.96	3.25	1	7
	Women	232	2.65	1.264	.083	2.48	2.81	1	7
	Total	503	2.89	1.265	.056	2.78	3.01	1	7

Table 5.5: ANOVA results for gender effect on Spanish respondents

		Sum of Squares	df	Mean Square	F	Sig.
Corporate behavior: Environmental protection	Between Groups	15.681	1	15.681	9.563	.002
	Within Groups	821.548	501	1.640		
	Total	837.229	502			
Corporate behavior: Advertisement	Between Groups	32.827	1	32.827	22.007	.000
	Within Groups	747.321	501	1.492		
	Total	780.147	502			
Corporate behavior: Product information	Between Groups	18.869	1	18.869	11.991	.001
	Within Groups	788.348	501	1.574		
	Total	807.217	502			
Corporate behavior: Pollution reduction	Between Groups	26.022	1	26.022	14.740	.000
	Within Groups	884.475	501	1.765		
	Total	910.497	502			
Corporate behavior: Product range	Between Groups	13.659	1	13.659	11.131	.001
	Within Groups	614.830	501	1.227		
	Total	628.489	502			
Corporate behavior: Sustainable development	Between Groups	26.502	1	26.502	17.090	.000
	Within Groups	776.914	501	1.551		
	Total	803.416	502			

Table 5.6: Descriptive results for gender differences regarding corporate behavior in German sample

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Corporate behavior: Environmental protection	Men	226	3.94	1.477	.098	3.74	4.13	1	7
	Women	260	3.33	1.353	.084	3.17	3.50	1	7
	Total	486	3.62	1.442	.065	3.49	3.74	1	7
Corporate behavior: Advertisement	Men	226	3.25	1.371	.091	3.07	3.43	1	7
	Women	260	2.75	1.362	.084	2.58	2.92	1	7
	Total	486	2.98	1.388	.063	2.86	3.11	1	7
Corporate behavior: Product information	Men	226	2.81	1.415	.094	2.63	3.00	1	6
	Women	260	2.45	1.409	.087	2.27	2.62	1	7
	Total	486	2.62	1.422	.065	2.49	2.74	1	7
Corporate behavior: Pollution reduction	Men	226	3.49	1.396	.093	3.31	3.67	1	7
	Women	260	2.92	1.301	.081	2.76	3.08	1	7
	Total	486	3.19	1.374	.062	3.06	3.31	1	7
Corporate behavior: Product range	Men	226	3.03	1.301	.087	2.86	3.20	1	7
	Women	260	2.65	1.248	.077	2.50	2.80	1	7
	Total	486	2.83	1.286	.058	2.71	2.94	1	7
Corporate behavior: Sustainable development	Men	226	3.37	1.380	.092	3.19	3.55	1	7
	Women	260	2.98	1.344	.083	2.82	3.15	1	7
	Total	486	3.16	1.373	.062	3.04	3.28	1	7

Table 5.7: ANOVA results for gender effect on German respondents

		Sum of Squares	df	Mean Square	F	Sig.
Corporate behavior: Environmental protection	Between Groups	44.026	1	44.026	22.081	.000
	Within Groups	965.021	484	1.994		
	Total	1009.047	485			
Corporate behavior: Advertisement	Between Groups	30.494	1	30.494	16.338	.000
	Within Groups	903.374	484	1.866		
	Total	933.868	485			
Corporate behavior: Product information	Between Groups	16.374	1	16.374	8.217	.004
	Within Groups	964.441	484	1.993		
	Total	980.815	485			
Corporate behavior: Pollution reduction	Between Groups	39.017	1	39.017	21.534	.000
	Within Groups	876.944	484	1.812		
	Total	915.961	485			
Corporate behavior: Product range	Between Groups	17.548	1	17.548	10.834	.001
	Within Groups	783.933	484	1.620		
	Total	801.481	485			
Corporate behavior: Sustainable development	Between Groups	17.702	1	17.702	9.558	.002
	Within Groups	896.456	484	1.852		
	Total	914.158	485			

Table 5.8: Descriptive results for age differences regarding corporate behavior in Spanish sample

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Corporate behavior:	18 a 25	22	2.45	1.101	.235	1.97	2.94	1	5
	26 a 34	140	2.60	1.280	.108	2.39	2.81	1	7
	35 a 49	246	2.78	1.252	.080	2.62	2.94	1	7
	> 50	95	2.85	1.436	.147	2.56	3.15	1	7
Advertisement	18 a 25	22	2.45	1.143	.244	1.95	2.96	1	5
	26 a 34	140	2.61	1.317	.111	2.39	2.83	1	7
	35 a 49	246	2.67	1.233	.079	2.51	2.82	1	7
	> 50	95	2.64	1.211	.124	2.40	2.89	1	6
Product information	18 a 25	22	2.27	1.077	.230	1.80	2.75	1	5
	26 a 34	140	2.24	1.340	.113	2.02	2.47	1	7
	35 a 49	246	2.29	1.213	.077	2.14	2.44	1	6
	> 50	95	2.58	1.326	.136	2.31	2.85	1	6
Pollution reduction	18 a 25	22	2.59	1.368	.292	1.98	3.20	1	6
	26 a 34	140	2.65	1.404	.119	2.42	2.88	1	7
	35 a 49	246	2.82	1.276	.081	2.66	2.98	1	6
	> 50	95	2.99	1.425	.146	2.70	3.28	1	7
Product range	18 a 25	22	2.36	1.002	.214	1.92	2.81	1	5
	26 a 34	140	2.29	1.146	.097	2.09	2.48	1	6
	35 a 49	246	2.40	1.071	.068	2.26	2.53	1	6
	> 50	95	2.68	1.196	.123	2.44	2.93	1	7
Sustainable development	18 a 25	22	2.73	1.279	.273	2.16	3.29	1	6
	26 a 34	140	2.84	1.315	.111	2.62	3.06	1	7
	35 a 49	246	2.89	1.237	.079	2.73	3.04	1	7
	> 50	95	3.03	1.267	.130	2.77	3.29	1	7

Table 5.9: ANOVA results for age effect on Spanish respondents

		Sum of Squares	df	Mean Square	F	Sig.
Corporate behavior: Environmental protection	Between Groups	6.091	3	2.030	1.219	.302
	Within Groups	831.138	499	1.666		
	Total	837.229	502			
Corporate behavior: Advertisement	Between Groups	1.023	3	.341	.218	.884
	Within Groups	779.124	499	1.561		
	Total	780.147	502			
Corporate behavior: Product information	Between Groups	7.444	3	2.481	1.548	.201
	Within Groups	799.773	499	1.603		
	Total	807.217	502			
Corporate behavior: Pollution reduction	Between Groups	7.571	3	2.524	1.395	.244
	Within Groups	902.926	499	1.809		
	Total	910.497	502			
Corporate behavior: Product range	Between Groups	9.341	3	3.114	2.509	.058
	Within Groups	619.148	499	1.241		
	Total	628.489	502			
Corporate behavior: Sustainable development	Between Groups	2.791	3	.930	.580	.629
	Within Groups	800.625	499	1.604		
	Total	803.416	502			

Table 5.10: Descriptive results for age differences regarding corporate behavior in German sample

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Corporate behavior: Environmental protection	18 a 25	123	3.72	1.423	.128	3.46	3.97	1	7
	26 a 34	209	3.79	1.381	.096	3.60	3.98	1	7
	35 a 49	89	3.21	1.488	.158	2.90	3.53	1	7
	> 50	65	3.42	1.509	.187	3.04	3.79	1	7
Corporate behavior: Advertisement	18 a 25	123	3.16	1.538	.139	2.89	3.44	1	7
	26 a 34	209	3.08	1.339	.093	2.89	3.26	1	7
	35 a 49	89	2.64	1.299	.138	2.37	2.91	1	5
	> 50	65	2.82	1.286	.159	2.50	3.13	1	7
Corporate behavior: Product information	18 a 25	123	2.72	1.478	.133	2.46	2.99	1	6
	26 a 34	209	2.73	1.437	.099	2.53	2.92	1	7
	35 a 49	89	2.25	1.325	.140	1.97	2.53	1	6
	> 50	65	2.57	1.334	.165	2.24	2.90	1	7
Corporate behavior: Pollution reduction	18 a 25	123	3.31	1.356	.122	3.07	3.55	1	7
	26 a 34	209	3.20	1.413	.098	3.01	3.39	1	7
	35 a 49	89	2.92	1.245	.132	2.66	3.18	1	6
	> 50	65	3.28	1.431	.177	2.92	3.63	1	7
Corporate behavior: Product range	18 a 25	123	3.06	1.301	.117	2.82	3.29	1	6
	26 a 34	209	2.84	1.220	.084	2.68	3.01	1	7
	35 a 49	89	2.49	1.298	.138	2.22	2.77	1	7
	> 50	65	2.80	1.372	.170	2.46	3.14	1	7
Corporate behavior: Sustainable development	18 a 25	123	3.24	1.362	.123	2.99	3.48	1	6
	26 a 34	209	3.19	1.410	.098	2.99	3.38	1	7
	35 a 49	89	2.93	1.330	.141	2.65	3.21	1	6
	> 50	65	3.26	1.326	.164	2.93	3.59	1	7

Table 5.11: ANOVA results for age effect on German respondents

		Sum of Squares	df	Mean Square	F	Sig.
Corporate behavior: Environmental protection	Between Groups	24.541	3	8.180	4.005	.008
	Within Groups	984.506	482	2.043		
	Total	1009.047	485			
Corporate behavior: Advertisement	Between Groups	18.066	3	6.022	3.170	.024
	Within Groups	915.802	482	1.900		
	Total	933.868	485			
Corporate behavior: Product information	Between Groups	16.258	3	5.419	2.708	.045
	Within Groups	964.556	482	2.001		
	Total	980.815	485			
Corporate behavior: Pollution reduction	Between Groups	8.676	3	2.892	1.536	.204
	Within Groups	907.285	482	1.882		
	Total	915.961	485			
Corporate behavior: Product range	Between Groups	16.443	3	5.481	3.365	.019
	Within Groups	785.038	482	1.629		
	Total	801.481	485			
Corporate behavior: Sustainable development	Between Groups	6.124	3	2.041	1.084	.356
	Within Groups	908.034	482	1.884		
	Total	914.158	485			

Figure 5.8: Cross-national CHAID model for consumer being willing to pay more for sustainability

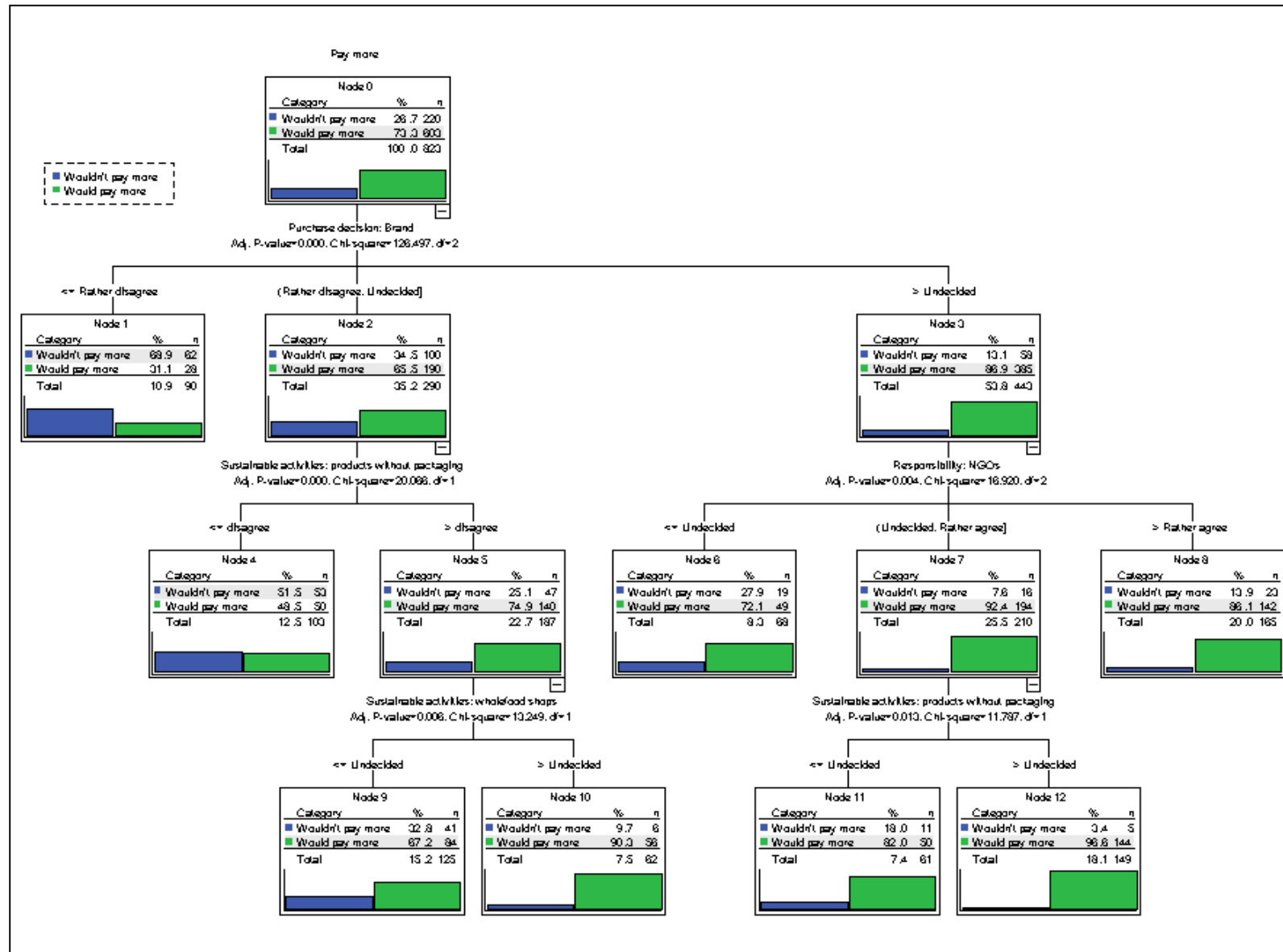


Table 5.12: Gains for nodes for Spanish model

Node	Node		Gain		Response	Index
	N	Percent	N	Percent		
6	131	31.6%	129	43.1%	98.5%	136.7%
5	62	14.9%	50	16.7%	80.6%	111.9%
3	96	23.1%	69	23.1%	71.9%	99.8%
2	68	16.4%	37	12.4%	54.4%	75.5%
1	58	14.0%	14	4.7%	24.1%	33.5%

Growing Method: EXHAUSTIVE CHAID

Dependent Variable: Pay more (v6.1)

Table 5.13: Classification for Spanish model

Observed	Predicted		
	Wouldn't pay more	Would pay more	Percent Correct
Wouldn't pay more	44	72	37.9%
Would pay more	14	285	95.3%
Overall Percentage	14.0%	86.0%	79.3%

Table 5.14 Gains for nodes for German model

Node	Node		Gain		Response	Index
	N	Percent	N	Percent		
4	110	27.0%	102	33.6%	92.7%	124.4%
5	75	18.4%	62	20.4%	82.7%	110.9%
3	89	21.8%	63	20.7%	70.8%	95.0%
1	134	32.8%	77	25.3%	57.5%	77.1%

Growing Method: EXHAUSTIVE CHAID

Dependent Variable: Pay more (v6.1)

Table 5.15: Classification for German model

Observed	Predicted		
	Wouldn't pay more	Would pay more	Percent Correct
Wouldn't pay more	0	104	.0%
Would pay more	0	304	100.0%
Overall Percentage	.0%	100.0%	74.5%

Table 5.16: Gains for nodes for cross-national model

Node	Node		Gain		Response	Index
	N	Percent	N	Percent		
12	149	18.1%	144	23.9%	96.6%	131.9%
10	62	7.5%	56	9.3%	90.3%	123.3%
8	165	20.0%	142	23.5%	86.1%	117.5%
11	61	7.4%	50	8.3%	82.0%	111.9%
6	68	8.3%	49	8.1%	72.1%	98.3%
9	125	15.2%	84	13.9%	67.2%	91.7%
4	103	12.5%	50	8.3%	48.5%	66.3%
1	90	10.9%	28	4.6%	31.1%	42.5%

Growing Method: EXHAUSTIVE CHAID

Dependent Variable: Pay more (v6.1)

Table 5.17: Classification for cross-national model

Observed	Predicted		
	Wouldn't pay more	Would pay more	Percent Correct
Wouldn't pay more	115	105	52.3%
Would pay more	78	525	87.1%
Overall Percentage	23.5%	76.5%	77.8%

Chapter 6

Conclusions, limitations and implications

6.1 Conclusions

The objective of this thesis was to determine consumers' perception and attitude towards sustainability in a cross-national comparison, analyzing German and Spanish consumers. Different analysis techniques were used and applied in three main studies in order to examine the consumers' position towards sustainability issues.

The objective of the first study was twofold. Firstly, the analysis sought to compare the consumer's perceived individual role in the environment between German and Spanish consumers. Secondly a socio-demographic profile of the most responsible consumer was aimed to be created in both countries, taking into consideration the factors age and gender. As expected, our results show that perceived individual responsibility varies between the analyzed nations, as we identified a higher responsibility among the German consumers in a direct comparison between the analyzed countries. Spanish respondents perceived government policies, companies and science to be more responsible for environmental impact than individual behavior. Only NGOs were perceived as less responsible than individual behavior. Germans perceived individual responsibility as most important, followed by the responsibility of government policies, companies, science, and NGOs. These results imply that Germans believe to a higher degree that their behavior has a significant impact on society and that their efforts make a real effect. Regarding the socio-demographic aspects, we found age and gender to be partially influential partially on perceived individual responsibility. Our results show that women perceive a higher consumer responsibility than men, supporting our hypothesis that women, being environmentally more conscious than men according to various prior studies, also exhibit a higher responsibility towards the environment. Among the Germans, age played a significant role regarding perceived responsibility as the between 35 and 49 year olds were identified to perceive individual responsibility as most important followed by the age groups of over 50 years, 26-34 years and

18-25 years. Among the Spanish respondents, no significant differences could be determined between the age groups. In other words, age does not affect the perception of responsibility. Comparing our expectations with our results, environmental knowledge could be recognized as a good indicator for perceived individual responsibility. Consumers start to act responsible if they feel a certain effectiveness of their behavior. High perceived consumer effectiveness requires knowledge about how one can contribute in a responsible way. Knowledge can be induced by a high degree of information.

The second study sought to analyze the consumers' perception of the sustainable product offer in retail stores of the analyzed countries and to determine the environmental motive concerns leading the German and Spanish consumers to sustainable consumption. Results demonstrate varied perceptions of the sustainable product offer between German and Spanish consumers. As hypothesized, German consumers perceive a greater visibility and availability of sustainable products than Spaniards. These results were expected, due to a quite developed ethical market in Germany and a market in an early phase of development in Spain (Papaoikonomou et al., 2011). This implies that a greater sustainable product offer leads to a higher perception of sustainable products. When it comes to sustainable consumption, German and Spanish consumers are mainly led by the altruistic motive, taking into consideration the social consequences of their purchase. Spanish consumers are further influenced by the egoistic motive reflecting personal advantages, and in a third place by the biospheric motive, reflecting the purchases' consequences for nature. German consumers are influenced in a second place by the biospheric motive concerns. The impact of the egoistic motive concern on sustainable consumption could not be interpreted among the German consumers. In conclusion, Spanish and German consumers mainly buy sustainable products because of their impact on the society. Nevertheless, biospheric and egoistic motive concerns vary among the analyzed cultures, supporting partially De Mooij and Hofstede (2002) quoting

strong differences among the value systems of consumers in different European countries.

The objective of the third study was to investigate the perception of corporate sustainable behavior and corporate information and to determine whether gender and age influence the perception. Furthermore the creation of a profile of the consumer, willing to pay more for sustainable products was the goal of this part of the thesis. Results show that perceived corporate sustainable behavior varies between German and Spanish respondents. In a direct comparison between both consumer groups, a higher perception of corporate sustainable behavior and communication is mostly measured among the German consumers. Overall, men perceived a better behavior and communication by companies than women in both countries. Age did not affect the Spanish respondents in their perception, whereas predominantly young consumers between 18 and 25 years perceived a better corporate behavior and communication among the German respondents. Regarding the willingness to pay more for sustainable products, Spanish consumers are characterized as consumers that attach a certain importance to the brand of the product and to acceptable or reasonable prices. German consumers, being disposed to afford additional expenses, are characterized as consumers purchasing products with less packaging and buying products in organic stores.

Observing as a whole the results of this thesis, the level of importance of environmental issues is similar between Germans and Spaniards. Consumers of both countries would buy sustainable products because of the purchase's impact on the society. Egoistic and biospheric motives for sustainable consumption play a secondary role. Regarding the willingness to afford additional expenses, Germans and Spaniards differ from each other, as Spanish consumers attach importance to product brands and acceptable or reasonable prices. German consumers who are willing to pay more, are characterized as consumers purchasing products with less packaging and mostly in organic stores. The level of environmental responsibility also differs between the analyzed consumers, as

Germans perceive themselves to be more responsible than Spaniards. So does the level of perceived availability of sustainable products, perceived corporate behavior and perceived corporate communication by companies and retailers, always detecting German consumers to perceive higher values. These results imply a lack of sustainability in Spain compared with Germany from the company point of view. The level of perception is proven to be a good indicator for the level of perceived individual responsibility.

Socio-demographic results further show that women of both societies consider individual responsibility to be more important than men. Age only influenced perceived individual responsibility among the Germans positively. Among them 35 to 49 year old consumers allocate the highest importance to individual behavior. Men perceived corporate sustainable behavior and communication as higher than women. Age did not affect the perception among the Spaniards but it did among the Germans in some cases, as 18 to 25 year olds and the 26 to 35 year olds were identified to perceive a better corporate behavior and communication.

These results offer a complete profile of the consumer's attitude and perception towards sustainability in Germany and in Spain. The cross-national analysis allows a prediction of the sustainability level based on the consumer's point of view. Information about perception of corporate activities, individual responsibility, consumption-driving motives and disposition of additional expenses can be used by companies to modify their marketing strategies and adapt their behavior to the consumer's requirements.

6.2 Limitations

Several limitations of this thesis need to be addressed. The data this thesis is based on were collected with an online-questionnaire, due to the limited provided financial means. This complicated the control about the respondents who answered the questionnaire. Online surveys further cause difficulties, achieving a

combined quota sampling regarding the socio-demographic characteristics of the respondents. This sampling approximately represents the gender balance of the Spanish and the German population but a representative age balance could not be achieved, averaging the age of 32.1 (official median age: 45.3 years) for German respondents and the average of 39.8 for Spanish respondents (official median age: 40.9 years).²¹ A survey including the population quotes of household size, income and education level would have made the study particularly representative. Although household size and education level were included in the survey, they were excluded from the applied analysis due their unequal distribution. Finally, the study only represents a cross-national analysis of two countries. An analysis and comparison of more European countries needs to be realized in order to draw a conclusion about country groups such as Northern European countries versus Southern European countries, for instance.

6.3 Implications

6.3.1 Implications for research

Further research should focus on the extent to which individual responsibility is influenced by environmental information and general perception of corporate sustainable activities. An analysis of the sustainable market in Spain would be especially reasonable, since we do not know whether the low individual responsibility is caused by a weaker sustainable product offer, by a weaker corporate communication, or maybe by external circumstances such as financial means. On the contrary, further knowledge about the influence of individual responsibility on actual consumer behavior, reflected through purchase and product use, would be useful to analyze in further analyses.

Finally, it may be worthwhile to investigate the pattern behind the displayed difference in consumption motives in Spain and Germany in more detail. It could

²¹ Nevertheless, analyses including the factor age were realized due to a reasonable distribution of respondents in the defined aging groups.

be interesting to find out if these consumption motives correlate with specific personality traits or other socio-demographic characteristics. Research in this area may be promising for companies and retailers who try to segment their customer base and help them to market their sustainable products by addressing the specific needs and particular consumption motives of their customers. With the additional information about the consumers, companies could increase the efficiency of their sustainable activities through a more adapted marketing strategy.

6.3.2 Implications for practice

Our results show that consumers of all kinds in Spain and overall younger consumers in Germany are in need of more information about the ethical consequences of their behavior. This requires a successful interaction between companies, government policies and NGOs, since they all exhibit a certain impact on the implementation. Results also imply that a development of sustainable attitudes leads consumers to reject eco-unfriendly products. As many consumers consider responsible behavior to be important, due to worldwide environmental problems, sustainability can be used as a marked niche to compete with Asian companies for instance, which disregard the environmental consequences of their behavior and set special focus on low production costs. National governments of developed countries, such as the member countries of the European Union could take advantage of this situation by influencing consumer behavior through stricter regulations for companies

Middle-aged consumers are proven to be more responsible in Germany due to the LOHAS lifestyle of many Germans. Companies may address German consumers by informing that the quality of the products does not suffer as a cause of the special focus on sustainability, as the slogan “Quality and Responsibility” by consumer goods manufacturer Henkel shows. Spanish consumers need to be informed about the quality aspect as well, and in addition,

due to the recent economic situation in Spain, they need to be advised that the purchase of sustainable products does not cause additional expenses. This applies to younger consumers in Germany as well. They perceive good corporate sustainable behavior and communication but their level of responsibility is low, as they probably relate sustainable products with more costs. However, older people perceiving a lower corporate behavior exhibit a higher individual responsibility.

We therefore suggest that companies focus on different aspects in order to address these aging groups. Younger people should be advised of the money saving aspect when purchasing the company's products taking into consideration their lower income level. Middle-aged or older people could be convinced by advising on the health aspect provided by sustainable products. For companies in both countries it is further important to address female consumers, as they provide a lower perception of corporate behavior than men. Addressing them is crucial for companies because women mostly decide about the purchase of household goods. Special marketing efforts to raise women's perception have been realized in the past by Coca Cola for instance, focusing on emotional messages about their sustainability actions with the Diet Coke advertising. Emotional response pathways may be provoked through the addition of the word "responsibility" on product packaging and in product advertisements.

In general, companies could raise the consumers' awareness through a labeling of sustainable products that informs about the manufacturing process and the environmental consequences of the product use. Doing so, companies should provide information especially about the social impact of their products. However, personal and environmental interests should not be forgotten either. In order to raise the consumers' awareness about sustainable company efforts, retailers need to promote sustainable products through a better visual product presentation, a preferred treatment of eco-friendly companies and a banning of eco-unfriendly products from the retail store shelves. The lack of sustainability in

Spain is an opportunity for the economy to provide new business potential, which could be picked up by young entrepreneurs in order to endow the economy with new ideas.

Bibliography

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes* 50 (2), 179-211.
- Alba, J. W. and J. W. Hutchinson (1987). Dimensions of consumer expertise. *Journal of Consumer Research*, 13, 411-454.
- Albareda, L., J. M. Lozano, A. Tencati, A. Midttun, and F. Perrini (2008). The changing role of governments in corporate social responsibility: Drivers and responses. *Business Ethics: A European Review* 17 (4), 347-363.
- Alwin, D. F. (1992). Information transmission in the survey interview: Number of response categories and the reliability of attitude measurement. In P. V. Marsden (Ed.), *Sociological Methodology*, Washington DC, pp. 83-118. American Sociological Association.
- Ashforth, B. E. and B. W. Gibbs (1989). The double-edge of organizational legitimation. *Organization Science* 1 (2), 177-194.
- Arvidsson (2010). Communication of corporate social responsibility: A study of the views of management teams in large companies. *Journal of Business Ethics* 96 (3), 339-354.
- Bageac, D., O. Furrer, and E. Reynaud (2011). Management students' attitudes towards business ethics: A comparison between France and Romania. *Journal of Business Ethics* 98 (3), 391-406.
- Bagozzi, R. P., M. Gopinath, and P. U. Nyer (1999). The role of emotions in marketing. *Journal of the Academy of Marketing Science* 27 (2), 184-206.
- Balderjahn, I. (1988). Personality variables and environmental attitudes as predictors of ecologically responsible consumption patterns. *Journal of Business Research* 17 (1), 51-56.

- Banerjee, B. and K. McKeage (1994). How green is my value: Exploring the relationship between environmentalism and materialism. *Advances in Consumer Research* 21, 147-152.
- Barreiro, J. M., M. A. Lopez, F. Losada, and E. Ruzo (2002). Análisis de las dimensiones cognoscitiva, y afectiva del comportamiento ecológico del consumidor. *Revista Galega de Economía* 11 (2), 1-21.
- Beamon, B. M. (1999). Designing the green supply chain. *Logistics Information Management* 12 (4), 332-342.
- Behrens, G. And M. Neumaier (2004). Der Einfluss des Unbewussten auf das Konsumentenverhalten. In A. Gröppel-Klein (Ed.), *Konsumentenverhaltensforschung im 21. Jahrhundert. Gewidmet Peter Weinberg zum 65. Geburtstag*, Wiesbaden, Germany, pp. 3-27. Gabler.
- Blackwell, R. D., P. W. Miniard, and J. F. Engel (2001). *Consumer behaviour*. Mason, OH: Southwestern.
- Boulstridge, E. and M. Carrigan (2000). Do consumers really care about corporate responsibility? Highlighting the attitude-behavior gap. *Journal of Communication Management* 4 (4), 355–368.
- Bremer, J. A. (2008). How global is the Global Compact? *Business Ethics: A European Review* 17 (3), 227-244.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology* 1 (3), 185-216.
- Brown, T. J. and P. A. Dacin (1997). The company and the product: Corporate associations and consumer product responses. *Journal of Marketing* 61 (1), 68-84.
- Browne, M. W. and R. Cudeck (1993). Alternative ways of assessing model fit. In K. A. Bollen and J. S. Long (Eds.), *Testing Structural Equation Models*, Newbury Park, CA, pp. 136-162. Sage.

- Campbell, J. L. (2007). Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility. *Academy of Management Review* 32 (3), 946-967.
- Carrero, I., C. Valor, and J. M. Rosa (2010). Fomentando el consumo responsable en España. *Documento de orientación de políticas públicas*, pp. 1-12. http://www.council-consultores.com/uploads/documentos_adjunto/documentos_adjunto263.pdf.
- Carrigan, M. and A. Attalla (2001). The myth of the ethical consumer – Do ethics matter in purchase behaviour? *Journal of Consumer Marketing* 18 (7), 560-577.
- Carvalho, S. W., S. Sen, M. O. Mota, and R. C. Lima (2010). Consumer reactions to CSR: A Brazilian perspective. *Journal of Business Ethics* 91, 291–310.
- Coddington, W. (1990). It's no fad: environmentalism is now a fact of corporate life, *Marketing News*, 15th October, p. 7.
- Crane, A. and D. Matten (2004). *Business Ethics: A European perspective*. Oxford, UK: Oxford University Press.
- Creyer, E. H. and W. T. Ross (1997). The influence of firm behavior on purchase intention: Do consumers really care about business ethics? *Journal of Consumer Marketing* 14 (6), 421–433.
- Cuesta, M. and C. Valor (2004). Fostering corporate social responsibility through public initiative: From the EU to the Spanish case. *Journal of Business Ethics* 55, 275–293.
- Danaher, P. J. and J. R. Rossiter (2011). Comparing perceptions of marketing communication channels. *European Journal of Marketing* 45, 6-42.
- Dawar, N. and P. Parker (1994). Marketing universals: consumers' use of brand, name, price, physical appearance and retailer reputation as signals of product quality. *J Mark* 58, 81-95.

- Dawkins, J. (2004). Corporate responsibility: The communication challenge. *Journal of Communication Management* 9 (2), 108-119.
- De Mooij, M. and G. Hofstede (2002). Convergence and divergence in consumer behavior: Implications for international retailing. *Journal of Retailing* 78, 61-69.
- De Pelsmacker, P., L. Driesen, and G. Rayp (2005). Do consumers care about ethics? Willingness to pay for Fair-Trade coffee. *The Journal of Consumer Affairs* 39 (2), 363-385.
- De Pelsmacker, P. And W. Janssens (2007). A model for Fair Trade buying behavior: The role of perceived quantity and quality of information and of product-specific attitudes. *Journal of Business Ethics* 75 (4), 361-380.
- De Teran, N. (2001). Cortefiel aims for pan-European role. *Financial news*, 9th April, p. 32.
- De Vicente, M., H. D. Molina, and J. N. Ramírez (2012). Supervisión de las sociedades de capital tras la crisis financiera. *Revista de Fomento Social* 67, 487-513.
- Deng, J., G. Walker, and G. Swinnerton (2006). A comparison of environmental values and attitudes between Chinese in Canada and Anglo-Canadians. *Environment and Behavior* 38, 22-47.
- Diamantopoulos, A., B. B. Schlegelmilch, R. R. Sinkovics, and G. M. Bohlen (2003). Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *Journal of Business Research* 56, 465-480.
- Diekmann, A. (2004). *Empirische Sozialforschung – Grundlagen, Methoden, Anwendungen*. Hamburg: Rowohlt.

- Doh, J. P. and T. R. Guay (2006). Corporate social responsibility, public policy, and NGO activism in Europe and the United States: An institutional-stakeholder perspective. *Journal of Management Studies* 43 (1), 47-73.
- Doh, J. P. and H. Teegen (2003). *Globalization and NGOs: Transforming business, governments, and society*. Westport, CT: Praeger.
- Donthu, N. and B. Yoo (1998). Cultural influences on service quality expectations. *Journal of service Research* 1 (2), 178-186.
- Du, S., C. B. Bhattacharya, and S. Sen (2010). Maximizing business returns to corporate social responsibility (CSR): The role of CSR communication, *International Journal of Management Reviews* 12 (1), 8-19.
- Elkington, J. (2004). Enter the triple bottom line. In A. Henriques and J. Richardson (Eds.), *The Triple Bottom Line: Does it All Add Up?*, London, UK, pp. 1-16., EarthScan.
- Ellen, P. S., L. A. Mohr, and D. J. Webb (2000). Charitable programs and the retailer: Do they mix? *Journal of Retailing* 76, 393-406.
- European Commission (2009). *Towards a greener retail sector*. Ivry-sur-Seine, France.
- Farley, J. and D. Lehmann (1994). Cross-Cultural laws and differences in market response. *Management Science* 40 (1), 111-122.
- Freestone, O. M. and P. J. McGoldrick (2008). Motivations of the ethical consumer. *Journal of Business Ethics* 79, 445-467.
- Ganesan, S., M. George, S. Jap, R. W. Palmatier, and B. Weitz (2009). Supply chain management and retailer performance: Emerging trends, issues and implications for research and practice. *Journal of Retailing* 85, 84-94.
- Gladwin, T. N., J. J. Kennelly, and T. S. Krause (1995): Shifting paradigms for sustainable development: Implications for management theory and research. *The Academy of Management Review* 20 (4), 874-907.

- Goldsmith, E. B. and R. E. Goldsmith (2011). Social influence and sustainability in households. *International Journal of Consumer Studies* 35 (2), 117-121.
- Groeber, J. (2008). Betting the House on Private Brands, *Stores*. <http://www.stores.org/stores-magazine-february-2008/betting-house-private-brands>.
- Hair, J. F., R. E. Anderson, R. L. Tatham, and W. C. Black (1998). *Multivariate Data Analysis*. Upper Saddle River, NJ: Prentice-Hall.
- Hart, S. (1997). Beyond greening: Strategies for a sustainable world. *Harvard Business Review* 75 (1), 67-76.
- Hartmann, L. P., S. R. Rubin, and K. K. Dhanda (2007). The communication of corporate social responsibility: United States and European Union multinational corporations. *Journal of Business Ethics* 74 (4), 373-389.
- Hawken, P. (1993). *The ecology of commerce: A declaration of sustainability*. New York: Harper Business.
- Heise, A. (2009). Toxische Wissenschaft? Zur Verantwortung der Ökonomen für die gegenwärtige Krise. *Arbeitspapiere für Staatswissenschaft No. 32*. <http://hdl.handle.net/10419/41345>
- Hingley, M. K. (2005). Power imbalanced relationships: Cases from UK fresh food supply. *International Journal of Retail & Distribution Management* 33, 551-569.
- Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills, CA: Sage.
- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations across Nations*. Thousand Oaks, CA: Sage.
- Hoyle, R. H. (1995). The structural equation modeling approach: Basic concepts and fundamental issues. In R. H. Hoyle (ed.), *Structural Equation Modeling: Concepts, Issues, and Applications*, Thousand Oaks, CA, pp. 1-15, Sage.

- Hyllegard, K., M. Eckmann, A. M. Descals, and M. A. Gomez (2005). Spanish consumers' perceptions of US apparel speciality retailers' products and services. *Journal of Consumer Behaviour* 4 (5), 345-362.
- Instituto Nacional de Estadística (INE). (2011). Spain's population data. http://www.ine.es/inebmenu/mnu_cifraspob.htm.
- Jackson, T. (2005). Motivating sustainable consumption: A review of evidence on consumer behaviour and behavioural change. *Report to the sustainable development research network*, 1-154.
- Janiszewski, C. (1993). Preattentive mere exposure effects. *Journal of Consumer Research* 20 (3), 376-392.
- Kass, G. V. (1980). An exploratory technique for investigating large quantities of categorical data. *Applied Statistic* 29, 119-127.
- Keck, M. and K. Sikkink (1998). *Activists Beyond Borders: Advocacy Networks in International Relations*. Ithaca, NY: Cornell University Press.
- Keillor, B. D., M. D'Amico, and V. Horton (2001). Global consumer tendencies. *Psychology & Marketing* 18 (1), 1-19.
- Kinnear, T., J. Taylor., and S. Ahmed (1974). Ecologically concerned consumers: Who are they? *Journal of Marketing* 38, 20-24.
- Kluckhohn, C. (1951). The study of culture. In D. Lerner and H. D. Lasswell (Eds.), *The Policy Sciences*, Stanford, CA, pp. 86-101, Stanford University Press.
- Kotler, P. (2011). Reinventing marketing to manage the environmental imperative. *Journal of Marketing* 75 (4), 132-135.
- Kroeber, A. L. and C. Kluckhohn (1952). *Culture: A Critical Review of Concepts and Definitions*. Cambridge, Mass: Harvard University.
- Kroeber-Riel, W., P. Weinberg, and A. Gröppel-Klein (2009). *Konsumentenverhalten*. München: Vahlen.

- Laroche, M., J. Bergeron, and G. Barbaro-Forleo (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing* 18 (6), 503-520.
- Lichtenstein, D. R., M. E. Drumwright, and B. M. Braig (2004). The effect of corporate social responsibility on customer donations to corporate-supported nonprofits. *Journal of Marketing* 68, 16-32.
- Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology* 140, 1-55.
- Loxley, J. (1998). *Interdependence, Disequilibrium and Growth: Reflections on the Political Economy of North-South Relations at the Turn of the Century*. London, UK: Macmillan Press.
- Luo, X. and C. B. Bhattacharya (2006). Corporate social responsibility, customer satisfaction, and market value. *Journal of Marketing* 70, 1-18.
- Malpass, A., C. Barnett, N. Clarke, and P. Cloke (2007). Problematizing choice: Responsible consumers, skeptical citizens. In M. Bevir and F. Trentmann (Eds.), *Governance, Consumers and Citizens: Agency and Resistance in Contemporary Politics*, London, UK, pp. 231-256. Palgrave Macmillan.
- Maignan, I. (2001). Consumers' perceptions of corporate social responsibilities: A cross-cultural comparison. *Journal of Business Ethics* 30, 57-72.
- Mainierie, T., E. G. Barnett, T. R. Valdero, J. B. Unipan, and S. Oskamp (1997). Green buying: The influence of environmental concern on consumer behavior. *Journal of Social Psychology* 137, 189-204.
- Marin, L. and S. Ruiz (2007). "I need you too!" Corporate identity attractiveness for consumers and the role of social responsibility. *Journal of Business Ethics* 71, 245-260.
- Marsh, H. W., K.-T. Hau, and D. Grayson (2005). Goodness of Fit in Structural Equation Models. In A. Maydeu-Olivares and J. J. McArdle (eds.),

Contemporary Psychometrics: A Festschrift for Roderick P. McDonald, Mahwah, NJ, pp. 225-340. Lawrence Erlbaum Associates.

Matten, D. and J. Moon (2008). A conceptual framework for a comparative understanding of corporate social responsibility. *Academy of Management Review* 33 (2), 404-424.

McDonald, R. P. and M. R. Ho (2002). Principles and practice in reporting structural equation analyses. *Psychological Methods* 7, 64-82.

McDonald, S., C. J. Oates, C. W. Young, and K. Hwang (2006). Toward sustainable consumption: Researching voluntary simplifiers. *Psychology & Marketing* 23 (6), 515-534.

Milfont, T., J. Duckitt, and L. Cameron (2006). A cross-cultural study of environmental motive concerns and their implications for pro-environmental behavior. *Environment and Behavior* 38, 745-767.

Mohr, L. A., D. J. Webb, and K. E. Harris (2001). Do consumers expect companies to be socially responsible? The impact of corporate social responsibility on buying behavior. *Journal of Consumer Affairs* 35 (1), 45-72.

Mohr, L. A. and D. J. Webb (2005). The effects of corporate social responsibility and price on consumer responses. *Journal of Consumer Affairs* 39 (1), 121-147.

Morsing, M. and M. Schultz (2006). Corporate social responsibility communication: Stakeholder information, response and involvement strategies. *Business Ethics: A European Review* 15 (4), 323-338.

Myburgh-Louw, J. and N. J. O'Shaughnessy (1994). Consumer perception of misleading and deceptive claims on the packaging of green fast moving consumer goods. In R. Achrol and A. Mitchell (Eds.), *AMA Summer Educators' Conference Proceedings*, Chicago, IL, pp. 344-353. American Marketing Association.

- Oyserman, D. and S. Lee (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological Bulletin* 134, 311-342.
- Papaoikonomou, E., G. Ryan, and M. Ginieis (2011). Towards a holistic approach of the attitude behavior gap in ethical consumer behaviours: Empirical evidence from Spain. *International Advances in Economic Research* 17, 77-88.
- Pinto, D. C., W. M. Nique, E. S. Añaña, and M. M. Herter (2011). Green consumer values: How do personal values influence environmentally responsible water consumption? *International Journal of Consumer Studies* 35, 122-131.
- Polonsky, M. J., P. Q. Brito, J. Pinto, and N. Higgs-Kleyn (2001). Consumer Ethics in the European Union: A comparison of Northern and Southern views. *Journal of Business Ethics* 31 (2), 117-130.
- Porter, M. E. and M. R. Kramer (2006). Strategy and Society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review* 84 (12), 78-92.
- Ralston, D. A., C. P. Egri, M. T. de la Garza Carranza, P. Ramburuth, et al. (2009). Ethical preferences for influencing superiors: A 41-Society study. *Journal of International Business Studies* 40 (6), 1022-1045.
- Ramaswami, M. and R. Bhaskaran (2010). A CHAID based performance prediction model in educational data mining. *International Journal of Computer Science Issues* 7 (1), 10-18.
- Rawwas, M. Y. (2005). Consumer ethics: A cross-cultural study of the ethical beliefs of Turkish and American consumers. *Journal of Business Ethics* 57 (2), 32-51.

- Rosa, E. and T. Dietz (1998). Climate change and society: Speculation construction and scientific investigation. *International Sociology* 13, 421-425.
- Roberts, J. A. (1996). Green consumers in the 1990's: Profile and implications for advertising. *Journal of Business Research* 36, 217-231.
- Saimee, S. Jeong, I. (1994). Cross-cultural research in advertising: An assessment of methodologies. *Journal of Academy of Marketing Science* 22 (3), 205-217.
- Schaefer, A. and A. Crane (2005). Addressing sustainability and consumption. *Journal of Macromarketing* 25, 76-92.
- Scheuch, E. K. (1973). Das Interview in der Sozialforschung. In R. König (ed.), *Handbuch der empirischen Sozialforschung*, Stuttgart, Germany, pp. 66-190. Enke.
- Schmidt, R. and E. Pioch (1994). The Elusive Euro-consumer. *Consumer Policy Review* 4 (1), 4-9.
- Schultz, W. (2001) The structure of environmental concern: Concern for self, other people, and the biosphere. *Journal of Environmental Psychology* 21, 327-339.
- Schultz, P. W. (2002). Environmental attitudes and behaviors across cultures. *Online Readings in Psychology and Culture, Unit 8*. <http://scholarworks.gvsu.edu/orpc/vol8/iss1/4>.
- Schultz, P., V. Gouveia, L. Cameron, G. Tankha, P. Schmuck, and M. Franek (2005). Values and their relationship to environmental concern and conservation behavior. *Journal of Cross-Cultural Psychology* 36, 457-475.
- Shrum, L. J., T. M. Lowrey, and J. A. McCarty (1994). Recycling as a marketing problem: A framework for strategy development. *Psychology and Marketing* 11 (4), 393-416.

- Shrum, L. J., J. A. McCarty, and T. M. Lowrey (1995). Buyer characteristics of the green consumer and their implications for advertising strategy. *Journal of Advertising* 24 (2), 71-82.
- Schwartz, S. (1977). Normative influences on altruism. *Advances in Experimental Social Psychology* 10, 221-279.
- Sen, S., C. B. Bhattacharya, and D. Korschun (2006). The role of corporate social responsibility in strengthening multiple stakeholder relationships: A field experiment. *Journal of the Academy of Market Science* 34 (2), 158-166.
- Sen, S. and C. B. Bhattacharya (2001). Does doing good always lead to doing better? Consumer reactions to corporate social responsibility. *Journal of Marketing Research* 38 (2), 225-243.
- Shapiro, S. and H. S. Krishnan (2001). Memory-based measures for assessing advertising effects: A comparison of explicit and implicit memory effects. *Journal of Advertising* 30 (3), 1-13.
- Simmons, C. J. and K. L. Becker-Olsen (2006). Achieving Marketing objectives through social sponsorships. *Journal of Marketing* 70 (4), 154-169.
- Soares, A. M., M. Farhangmehr, and A. Shoham (2007). Hofstede's dimensions of culture in international marketing studies. *Journal of Business Research* 60 (3), 277-284.
- Solomon, M. R., G. Bamossy, S. Askegaard, and M. K. Hogg (2010). *Consumer Behaviour*. Boston, MA: Allyn and Bacon.
- Statistisches Bundesamt (DeStatis) (2011). Germany's population data. <https://www-genesis.destatis.de/genesis/online/link/tabelleErgebnis/12411-0020>.
- Steenkamp, J., F. Hofstede, and M. Wedel (1999). A cross-national investigation into the individual and national cultural antecedents of consumer innovativeness. *J Mark* 63, 55-69.

- Stern, P. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues* 56 (3), 407-424.
- Stern, P., O. Young, and D. Druckman (1992). *Global Environmental Change: Understanding the Human Dimensions*. Washington DC: National Academy Press.
- Stern, P. C., T. Dietz, and L. Kalof (1993). Value orientations, gender, and environmental concern. *Environment and Behavior* 25, 322-348.
- Stern, P. C. and T. Dietz (1994). The basis of environmental concern. *Journal of Social Issues* 50 (3), 65-84.
- Stern, P. C., L. Kalof, T. Dietz, and G. A. Guagnano (1995). Values, beliefs, and proenvironmental action: Attitude formation toward emergent attitude objects. *Journal of Applied Social Psychology* 25, 1611-1636.
- Stolz, J., H. Molina, and J. Ramírez (2012 a). Consumers' perception of their responsibility towards the environment: A comparison between German and Spanish consumers, *Working paper*.
- Stolz, J., H. Molina, J. Ramírez, and N. Mohr (2012 b). Consumers' perception of the environmental performance in retail stores: An analysis of the German and the Spanish consumer, *Working Paper*.
- Stolz, J., J. Ramírez, and H. Molina (2013). Consumers' perception of corporate sustainability: Empirical evidence from Germany and Spain, *Working paper*.
- Suchard, H. T. and M. J. Polonski (1991). A theory of environmental buyer behaviour and its validity: The environmental action-behaviour model. In M. C. Gilly et al. (Eds.), *AMA Summer Educators' Conference Proceedings*, Chicago, IL, pp. 187-201. American Marketing Association.
- Swaidan, Z. (2012). Culture and consumer ethics. *Journal of Business Ethics* 108, 201-213.

- Swoboda, B and M. Löwenberg (2009). *The global sustainability initiative „Quality & Responsibility” and the concept of “Performance based on Sustainability”: The Henkel example*. Düsseldorf, Germany: Henkel.
- Tabachnick, B. G. and L. S. Fidell (2013). *Using Multivariate Statistics*. Boston: Allyn and Bacon.
- Trudel, R. and J. Cotte (2009). Does it pay to be good? *MIT Sloan Management Review* 50 (2), 60–68.
- Tucker, L. (1980). Identifying the environmentally responsible consumer: The role of internal-external control of reinforcements. *Journal of Consumer Affairs* 14, 326-340.
- Uusitalo, O. and R. Oksanen (2004). Ethical consumerism: A view from Finland. *International Journal of Consumer Studies* 28 (3), 214-221.
- Webster, F. E. Jr. (1975). Determining the characteristics of the socially conscious consumer. *Journal of Consumer Research* 3 (2), 188-205.
- Wagner, T., R. Lutz, and B. A. Weitz (2009). Corporate hypocrisy: Overcoming the threat of inconsistent corporate social responsibility perceptions. *Journal of Marketing* 73, 77-91.
- Webb, D. J. and L. A. Mohr (1998). A typology of consumer responses to cause-related marketing: from skeptics to socially concerned. *Journal of Public Policy and Marketing* 17 (2), 226-238.
- Weiber, R., and D. Mühlhaus (2009). *Strukturgleichungsmodellierung: Eine anwendungsorientierte Einführung in die Kausalanalyse mit Hilfe von AMOS, SmartPLS und SPSS*. Berlin, Germany: Springer.
- Williams, P and J. L. Aaker (2002). Can mixed emotions peacefully coexist? *Journal of Consumer Research* 28 (4), 636-649.

- Wiese, A., J. Kellner, B. Lietke, W. Toporowski, and S. Zielke (2012). Sustainability in retailing – A summative content analysis. *International Journal of Retail & Distribution Management* 40, 318-335.
- Wood, G. (1995). Ethics at the purchasing/sales interface: An international perspective. *International Marketing Review* 12 (4), 7-19.
- World Commission on Environment and Development (WCED) (1987). *Our Common Future*. Oxford, UK: University Press.
- Yeniyurt, S. and J. Townsend (2003). Does culture explain acceptance of new products in a country? An empirical investigation. *International Marketing Review* 20 (4), 377-396.
- Ytterhus, B. E., P. Arnestad, P., and S. Lothe (1999). Environmental initiatives in the retailing sector: An analysis of supply chain pressures and partnerships. *Eco-Management and Auditing* 6 (4), 181-188.

Annex

Annex 1: Cross-national questionnaire

Annex 2: Paper acceptance at International Journal of Consumer Studies (Sep. 2012)

Annex 3: Paper acceptance at World Congress of Marketing (Melbourne)

Annex 4: Paper acceptance at Conference Hispano-Lusas 2013 (Málaga)

Annex 5: Paper submission at Journal of Business Ethics (November 2012)

**A cross-national study about motives driving
sustainable consumption**



Thank you for your participation in this survey.

This survey is only for the purpose of research.

Regarding the following questions:

- **There exist neither right nor wrong answers**
- It is important to answer all questions
- If you are unsure about an answer, check what you think is most likely
- What matters is your personal opinion

All your information will be treated confidentially. The results of this questionnaire will not be used as individual interviews, but anonymously. Completing this questionnaire will not last more than **10 minutes**.

Stolz, Johannes, Doctorando de ETEA (jstolz@etea.com)

Ramírez-Sobrino, Jesús N. Profesor de ETEA (jramirez@etea.com)

Molina-Sánchez, Horacio. Profesor de ETEA (hmolina@etea.com)

Institución de la Compañía de Jesús
C/ Escritor Castilla Aguayo, 4
14004 Córdoba
Spain

Judge the following statements on a scale from 1 to 7. Choose between the values 1 (strongly disagree) to 7 (strongly agree). Here is an example about how to value a statement.

	Strongly disagree					Strongly agree	
I understood the here mentioned example.	1	2	3	4	5	6	7 <input checked="" type="checkbox"/>


1. How important are environmental issues to you personally?					
	Not important At all	Not important	Undecided	Important	Extremely important
Please choose one	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>


2. How important do you think is individual behavior for the impact on the environment?					
	Not important at all	Not important	Undecided	Important	Extremely important
Please choose one	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>


3. In your opinion, who is responsible for sustainability to what extent?							
	Strongly disagree					Strongly agree	
Government policies.	1	2	3	4	5	6	7
Science.	1	2	3	4	5	6	7
Companies.	1	2	3	4	5	6	7
NGOs.	1	2	3	4	5	6	7
Consumers.	1	2	3	4	5	6	7

4. What are sustainable products in your opinion?							
<i>Products that...</i>	Strongly disagree					Strongly agree	
...can be recycled.	1	2	3	4	5	6	7
...involve less packaging.	1	2	3	4	5	6	7
...are made of natural or organic materials.	1	2	3	4	5	6	7
...generate less pollution in their production or use.	1	2	3	4	5	6	7
...save water and energy.	1	2	3	4	5	6	7


5. How important are the following aspects when making a decision on what products to buy?							
	Strongly disagree					Strongly agree	
The product's impact on the environment.	1	2	3	4	5	6	7
The price of the product.	1	2	3	4	5	6	7
The quality of the product.	1	2	3	4	5	6	7
The brand of the product.	1	2	3	4	5	6	7

6. What actions will you take to act sustainable during your purchase?								
	Strongly disagree						Strongly agree	
I am willing to pay a higher price for a sustainable product.	1	2	3	4	5	6	7	
I buy products without packaging.	1	2	3	4	5	6	7	
I purchase locally produced products.	1	2	3	4	5	6	7	
I buy products in organic stores	1	2	3	4	5	6	7	
I stop buying products from companies being guilty of polluting the environment.	1	2	3	4	5	6	7	

7. How would you estimate the following statements?								
	Strongly disagree						Strongly agree	
I buy sustainable products because of prestige reasons.	1	2	3	4	5	6	7	
Laws to protect the environment limit my choices and personal freedom.	1	2	3	4	5	6	7	
One of the best things about recycling is that it saves money.	1	2	3	4	5	6	7	
Environmental protection is beneficial for my health.	1	2	3	4	5	6	7	
Protecting the environment will threaten jobs for people like me.	1	2	3	4	5	6	7	
Future generations should not be responsible for the problems we have created.	1	2	3	4	5	6	7	
The effects of pollution on public health are worse than we realize.	1	2	3	4	5	6	7	
I do not care about my personal impact on the environment.	1	2	3	4	5	6	7	
Environmental protection will help people have a better quality of life.	1	2	3	4	5	6	7	
Sustainable behavior benefits everyone.	1	2	3	4	5	6	7	
Environmental sustainable behavior influences nature.	1	2	3	4	5	6	7	
The balance of nature is delicate and easily upset.	1	2	3	4	5	6	7	
Modern development threatens flora and fauna.	1	2	3	4	5	6	7	
Claims that current levels of pollution are changing the earth's climate are exaggerated.	1	2	3	4	5	6	7	
Local pollution has little effect on environmental problems over the whole world.	1	2	3	4	5	6	7	

8. How would you estimate the following statements about sustainable products?								
<i>Sustainable products...</i>	Strongly disagree						Strongly agree	
...usually have good advertisements.	1	2	3	4	5	6	7	
...can often be seen in advertisement.	1	2	3	4	5	6	7	
...are presented in advertisement with further important information.	1	2	3	4	5	6	7	
...are usually presented in a credible way.	1	2	3	4	5	6	7	
...are clearly visible on the retail store shelves	1	2	3	4	5	6	7	
...are offered through a wide range of products in nearby stores	1	2	3	4	5	6	7	
...are sold in many stores.	1	2	3	4	5	6	7	
...I can buy them by all means	1	2	3	4	5	6	7	
...have acceptable prices.	1	2	3	4	5	6	7	
...have an average market price.	1	2	3	4	5	6	7	
...are adapted to my needs.	1	2	3	4	5	6	7	
...are of high quality.	1	2	3	4	5	6	7	
...are high standard products.	1	2	3	4	5	6	7	

9. How do you estimate the sustainable behavior of the companies in your country?

<i>Companies in my country ...</i>	<div style="display: flex; justify-content: space-between;"> Strongly disagree  Strongly agree </div>						
	1	2	3	4	5	6	7
...take the protection of the environment seriously.	1	2	3	4	5	6	7
...advertise their sustainable products sufficiently in the media.	1	2	3	4	5	6	7
...provide information on environmental impact on their products.	1	2	3	4	5	6	7
...try to reduce pollution of their products.	1	2	3	4	5	6	7
...offer sufficiently sustainable products in their range.	1	2	3	4	5	6	7
...pay attention to the development process of new sustainable products.	1	2	3	4	5	6	7

10. Please name three companies in your country, you would consider to be sustainable?

1. _____ 2. _____ 3. _____

11. Finally a few questions about yourself

Your gender? male female

Your year of birth? 19 ____ ____

How many people live in your household? ____ How many of them are under 18 years old? ____

Which is your level of High school degree Apprenticeship University degree other

Resident in? Spain Germany other: _____

Your nationality? Spanish German other: _____

Annex 2: Paper acceptance at International Journal of Consumer Studies (Sep. 2012)

International Journal of Consumer Studies Special Issue on Retailing

**Pretious,
Mike** para: J_Stolz, jstolz

17/09/2012
13:59

Dear Johannes

Further to your email last week to Richard Bent, please find attached review information in connection with the above.

This was sent back to you some time ago, though it appears not to have been received.

<<Consumer Perception of Environmental Performance Stolz.doc>>

The piece needs a little further work, but we are able to provisionally ACCEPT it on that basis.

Can you please address the issues raised and return the paper to us – ideally by the end of September 2012?

Please let us know if this is a problem, given that you will have a little less time to do this than some contributors.

All the best,



Mike Pretious

Lecturer in Marketing, Retailing and Consumer Studies
School of Arts, Social Sciences and Management
Queen Margaret University, Edinburgh
Queen Margaret University Drive
Musselburgh, East Lothian, EH21 6UU
Tel: +44 (0) 131 474 0000 *voice activated - ask clearly for MIKE PRETIOUS (pree-shus)*
Mobile: +44 (0) 7960 120063
email: mpretious@qmu.ac.uk

International Journal of Consumer Studies

Editor Katherine Hughes
PO Box 671, Caerphilly CF83 1ET UK
E-mail Katherine.Hughes@btconnect.com
Phone 0044 (0) 2920 886569
Fax 0044 (0) 2920 860848

Retailing and the Consumer Special Issue

Referee's Report Form

Reference:

Title: Consumer Perception of Environmental Performance in Retail Stores

Review:

	Acceptable	Needs work	Unacceptable
Subject of interest / relevance to global readers	X		
Technical quality		X	
Article / language quality	X		

Recommendation:

Excellent / acceptable as it stands	
Acceptable with minor revision not requiring re-assessment by referee	X
Requires revision and re-assessment by referee	
More suitable for publication in another journal	
Not acceptable	

Comments for transmission to the author:

This is a reasonably well written paper which is of an appropriate focus and in an area which would interest readers of the journal.

However, more detail is required in a number of key areas before this would be publishable. In particular:

1. The methodology section is too brief and should be expanded to include more detail on the rationale for the choice of methodology, sampling, etc.
2. The results similarly require more detail and (in particular) stronger links to the conclusions.

Consumers' perception of the environmental performance in retail stores: an analysis of the German and the Spanish consumer

Johannes Stolz¹, Horacio Molina Sánchez¹, Jesús Ramirez Sobrino¹, Nikolaus Mohr²

¹LOYOLA Business School, Córdoba, Spain

²University of Regensburg, Germany

Keywords: Sustainable consumption, retailing, consumer, perception, personal motives

Abstract

The purpose of our research is to find out about the consumer's perception of environmental retailing performance. Furthermore, consumer motives leading to sustainable consumption are measured by how they influence the consumer perception. Our study is divided into two parts and based on an international survey ($n = 989$) comparing German and Spanish consumers. First, we measure the perceiving availability and visibility of sustainable products in retail stores. Second, the impact of personal motives on sustainable consumption is evaluated, considering culture to be a moderating factor. Our study suggests that Spanish consumers tend to exhibit a weaker perception of sustainable products at their market places due to a weaker environmental awareness. Finally, we have identified the high importance of the social impact on both consumer groups regarding personal motives. The egoistic motive, however, has stronger effects on sustainable consumption among the Spanish consumers.

Introduction

In retailing, the importance of environmental protection is steadily increasing due to the consumer's growing concern about the environment. According to Pinto *et al.* (2011), consumers are likely to adapt their consumption habits to their concerns. As a consequence, most large European retailers implement actions to protect the environment. These may include their own activities, but also requirements for suppliers to act in a responsible manner (Ytterhus *et al.*, 1999; Ganesan *et al.*, 2009). Retailers have various options to convince consumers about their sustainable products, such as improving the environmental quality of products, using environmental labels, and banning products from the shelves that have a clear environmental impact. The consumer's perception of the activities varies also because of the different motives driving sustainable consumption. In their value-basis theory, Stern and Dietz (1994) differentiate between biospheric, egoistic or altruistic motives. Previous results support their theory, providing strong evidence for the distinction between these three environmental concerns.

Primary scientific studies on the impact of culture on personal values were conducted already during the late nineties (Deng *et al.* 2006). These studies show that cultural prevalence seems to be a relevant factor influencing environmental concerns. Compared to Northern European countries, the Spanish ethical market is still developing (Papaoikonomou *et al.*, 2011) whereas existing social trend groups such as the LOHAS ('Lifestyle of Health and Sustainability') emphasize the advanced sustainable market and the consumer's increasing sensitivity for sustainable consumption in Germany. The growing approximation of the European Union countries, expanding European retailers and cross-national marketing strategies indicate converging economic systems in Europe. However, there is evidence that value systems are not converging since consumer behavior, reflected in consumption and product use, differ among the European countries (De Mooij and Hofstede, 2002).

The objective of our research is to examine whether cross-national differences concerning the perceived environmental performance in retailing exist. Hence, we also

analyze if the cultural aspect affects personal motives leading the consumer to buy sustainable products. Research about the consumer's perception is needed to gain further insights into the relevance of sustainability for consumers (Wiese *et al.*, 2012). Taking into account the consumers' motivations, communication messages could be targeted at individuals (Freestone and McGoldrick, 2008). Due to the international scope of corporate activities, it is important for retailers to know if their environmental performance is perceived in the same manner across borders (Maignan, 2001). Comparing German and Spanish consumers seems to be relevant because of the expected approximation among European citizens regarding their consumption behavior and the differing cultural values among Germans and Spaniards (Hofstede, 1980). The main question of our research is: *how do consumers in Germany and Spain perceive the environmental performance in retail stores?* Our research is expected to shed light on the aspects retailers need to focus on to raise the consumer's attention in German and Spanish retail markets.

Defining Sustainability

In the current literature, several sustainability definitions appear often using differing terminology and sometimes overlapping in their meanings (Wiese, *et al.*, 2012). Sustainability was defined in 1987 by the World Commission on Environment and Development (WCED) as follows: 'Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs'. In other words: meeting the needs of people today without risking the development opportunities and the choice of lifestyle of future generations. Sustainability can be seen in terms of balancing economic, ecological and social goals and consequences. This is also known as the 'Triple Bottom line' approach (Gladwin *et al.*, 1995; Elkington, 2004). Goldsmith and Goldsmith (2011) define sustainability as 'everyday practices multiplied across the 6.4 billion people in the world that impact the air, water and earth'. However, this article is based on the ecological aspect, supporting Hawken (1993) who defines sustainability as an environment-centric

platform on which trade can be conducted as long as natural capacities are not reduced in order to protect future generations.

Sustainability in retail practice

Retailers are becoming more and more aware of sustainability issues (Groeber, 2008) and have several options to improve their impact on the environment, such as promoting the purchase of green products, encouraging measures that improve green supply chains, improving retailers' own performance, and better informing consumers (European Commission, 2009). They play an important role in supply chains as they are intermediaries between consumers and producers (Ytterhus *et al.*, 1999). Especially large retailers often have the capability to control supply chains to a large degree (Hingley, 2005).

Retailers with their own private-label can build up a sustainable competitive advantage through differentiating their offerings from those of competitors (Groeber, 2008). A contribution of their own private label can be demonstrated through eco-design activities such as offering products with special consideration for the environment through responsible care during the product's whole lifecycle. Furthermore, environmental labels can be used to raise the consumer's attention. Finally, retailers can improve their environmental performance through banning those products from the shelves with important environmental impacts. As an example, Mercadona has banned the use of PVC in packaging. Furthermore, Carrefour has completely stopped the sale of bluefin tuna in its Spanish stores. To raise the consumer perception regarding their sustainable product offers retailers need to address the consumer knowledge about how to act in an environmentally sustainable manner. As an example, retailers such as H&M and C&A advise consumers about washing clothes in a more environmentally friendly way whereas Carrefour and Mercadona propose several actions on their web sites leading to more sustainable behavior (European Commission, 2009).

Consumer perception

The perception of social responsibility is very important as it affects the image of brands and firms, their financial performance, and the propensity of consumers to buy specific brands and patronize certain retailers (Luo and Bhattacharya, 2006). De Pelsmacker and Janssens (2007) support that consumer perceptions influence consumer behavior. As previous research shows, especially in developed countries, consumers pay special attention to the environmental behavior of companies (Wagner *et al.*, 2009). For this reason marketing programs are launched by retailers to make the consumer aware of the available sustainable products at their market places. Information about sustainable product offers is essential as it influences the consumer's attitude towards retail stores (e.g. Lichtenstein *et al.*, 2004) and towards his purchase behaviors (e.g. Mohr and Webb, 2005). Still, it is important to spread positive information about sustainability as Sen and Bhattacharya (2001) found out that negative information about Corporate Social Responsibility has stronger effects on the consumer than positive information. Nevertheless, the consumer's perception is not only influenced by the information distributed through the retailer but also by the motivations driving his consumption (Ellen *et al.*, 2000).

Environmental motive concerns

Various models of environmental motives or values have been proposed in the literature. However, a tripartite classification prevails, distinguishing between the altruistic, egoistic, and biospheric motive concern. Expanding Schwartz's (1977) norm-activation model of altruism, Stern *et al.* (1993) argue that environmental moral norms could be activated by altruistic values as well as by egoistic or biospheric values. People with egoistic environmental attitudes are concerned about the environment but their concern is at a personal level. For example, those who hold egoistic environmental attitudes would be concerned about air pollution because of the effects it may have on their health (Schultz *et al.*, 2005). In the biospheric value orientation, people judge environmental issues on the basis of costs or benefits to ecosystems. According to this theory, therefore, 'three distinct value orientations, toward self,

other human beings and other species and the biosphere, can be distinguished and that each can independently influence intentions to act politically to preserve the environment' (Stern *et al.*, 1995, p. 1616). However, the altruistic, the egoistic and the biospheric concept do not have to be independent from each other as individual sustainable behavior usually consists of a combination of these three approaches (Stern *et al.*, 1993). In all three cases, people are concerned about the environment but each concept is based on different underlying values. These values can vary among different cultures (Schultz, 2002; Deng *et al.*, 2006). A careful use about the surrogate use of the terms culture and nation is recommended as there exists empirical support for between-country differences (Hofstede, 1980). However, Dawar and Parker (1994) argue that culture is the accumulation of shared meanings, norms and traditions and members of a nation tend to share these aspects. Throughout this research the term culture is used to operationalize nationality.

Theory and hypotheses

In the following section, we will discuss our hypotheses relating to the perceived sustainable product offer in retail stores and regarding the personal motives which drive the consumer's sustainable consumption. Consumer perception is influenced by several factors such as product offer, product information or knowledge about sustainability (De Pelsmacker and Janssens, 2007). Papaoikonomou *et al.* (2011) found out that compared to Germany, the Spanish ethical market is still in the early phase of development. This leads us to the following hypothesis:

- H1:** Perceived environmental performance in retail stores varies among the German and the Spanish consumers.
- H1a:** German consumers have a higher perceived availability of sustainable products than Spanish consumers.
- H1b:** German consumers have a higher perceived visibility of sustainable products than Spanish consumers.

The most widely used approach in marketing research to operationalize culture is the approach from Hofstede (2001) with the purpose to capture cultural differences. Comparing collectivistic and individualistic values on a European basis, Hofstede describes the Germans as 'truly individualistic' and the Spaniards as a collectivistic society. Still, the question is whether differences in individualism and collectivism influence personal motives (Oyserman and Lee, 2008). We rather believe that the increasing approximation between the European Union countries, expanding European retailers and cross-national marketing strategies decrease the cultural impact on consumer behavior. Although we suggest similar results concerning the importance of the environmental motives, we suggest different specifications. Specifically, green consumers are thought to be motivated by strong environmental values and attitudes (Schaefer and Crane, 2005). Due to a more developed sustainable market among the German society, we suppose that German consumers have developed a higher sensibility towards their impact on the society and the environment. This leads us to the following hypotheses:

H2: Consumers in Germany and Spain will allocate the same level of importance to the altruistic, egoistic and biospheric motive concern.

H2a: Consumers in Germany will allocate more importance to the altruistic motive than consumers in Spain.

H2b: Consumers in Germany will allocate more importance to the biospheric motive than consumers in Spain.

In the following, our hypotheses regarding the consumer's perception and his motive concerns will be tested throughout two different analysis techniques.

Methodology

An online-based questionnaire about sustainable purchasing was addressed to consumers of different age groups in Germany and Spain. Our data was collected during a period of two months between November and December 2011. In total 989 usable questionnaires were returned; 503 from Spain and 486 from Germany. Among the Spanish consumers, males composed 53.9 per cent ($n = 271$) and females composed 46.1 per cent ($n = 232$). Respondents' ages ranged from 18 to 72 years ($m = 39.8$). Among the German consumers males composed 46.5 per cent ($n = 226$) and females composed 53.5 per cent ($n = 260$). Respondents' ages ranged from 18 to 78 years ($m = 32.1$). Both samples represent approximately the gender balance of the Spanish and the German population according to the latest census of both countries accomplished by the German and the Spanish Institute of Statistics [Statistisches Bundesamt (DeStatis), 2011; Instituto Nacional de Estadística (INE), 2011]. The questionnaire was divided into five sections, requiring information about environmental awareness and interest, consumption-driving motives, corporate responsibility, sustainable communication, and the perception of sustainability in retailing. This research is based on the perception and motive-based items. The selected items are mainly based on the items, used by Stern *et al.* (1995). Demographic information such as age, gender and education were also included.

Measures

In a first step, we average the perception-based items to compare the mean values of perceived availability and visibility of sustainable products in retail stores as De Pelsmacker *et al.* (2005) identified the availability of green products as a determinant for sustainable consumption. Consequently we expect visibility to be influential as well. By the use of mean value comparisons, Maignan (2001) compared in a prior study consumers in Germany, France and the United States analyzing their perception of corporate responsible activities. We question the factor visibility with the item *sustainable products are visible in the retail store shelves*. Availability, however, was represented through three different items such as *many retail stores offer sustainable products*, *retail stores offer a wide range of sustainable products* and *I can buy sustainable products by all means*.

In a second step we measure the impact of the environmental motive concerns on sustainable consumption using the method of structural equation modeling which 'is a comprehensive statistical approach to testing hypotheses about relations among observed and latent variables' according to Hoyle (1995, p.1). Structural equation modeling has been implemented in several previous studies comparing environmental attitudes of specific cultural groups (e.g. Schultz, 2001; Milfont *et al.*, 2006). Based on Stern and Dietz' (1994) value-basis theory for environmental attitudes, we suggest that environmental motive concerns can be expressed by the egoistic, the altruistic and the biospheric factor. An 8-item scale composed by the items *prestige*, *money saving*, *job risk*, *future generations*, *social effects*, *life quality*, *general benefit* and *nature* which have been used in prior studies (e.g. Stern *et al.*, 1993; Stern *et al.*, 1995; Mainieri *et al.*, 1997) is selected to load on the environmental motive factors. The items *price*, *packaging*, *local products*, *green stores* and *unethical companies* are specified to load on the sustainable consumption dimension. The responses were mainly evaluated on a seven-point Likert-type scale ranging from strongly disagree (1) to strongly agree (7) (e.g. Milfont *et al.*, 2006).

Results

Perception-based

Our analysis exhibits differing results among Spanish and German consumers regarding their perception of sustainable products in retailing, supporting H1. Taking into consideration the perceived visibility of sustainable products in retail stores, German consumers scored significantly ($p < .001$) higher on *sustainable products are visible in the retail store shelves* ($M = 3.14$, $SD = 1.59$) than Spanish consumers ($M = 2.64$, $SD = 1.36$) as Table 1 shows. This supports H1a and suggests a higher visual appearance of sustainable products in German retail stores.

Table 1 Mean value comparison of consumer perception

	Spaniards (n=503)		Germans (n=486)		T value	p
	M	SD	M	SD		
Sustainable products are visible in the retail store shelves	2.64	1.357	3.14	1.591	5.32	0.000**
Many retail stores offer sustainable products	2.17	1.138	3.33	1.521	13.52	0.000**
Retail stores offer a wide range of sustainable products	2.35	1.259	3.36	1.700	10.64	0.000**
I can buy sustainable products by all means	2.17	1.231	3.00	1.601	9.15	0.000**

**Significant at 1% level.

The p values were calculated with a degree of freedom of 989 (sum of both samples).

Further examination of the perceived availability of sustainable products demonstrates that, German consumers were more supportive of *the item many retail stores offer sustainable products* ($M = 3.33$, $SD = 1.52$ vs. $M = 2.17$, $SD = 1.14$ for Spanish consumers). In addition, German consumers scored significantly ($p < .001$) higher on *retail stores offer a wide range of sustainable products* ($M = 3.36$, $SD = 1.70$) than Spanish consumers ($M = 2.35$, $SD = 1.26$). Finally German consumers were also more likely to endorse the item *I can buy sustainable products by all means* ($M = 3.00$, $SD = 1.60$ vs. $M = 2.17$, $SD = 1.23$ for Spanish consumers). As German consumers are more supportive of the three items, representing the availability of sustainable products in retailing, H1b can fully be approved. Due to the perception deviations of

the sustainable product offer in retailing among German and Spanish consumers, new interpretations about the sustainable market status in both countries can be made.

Motive-based

A confirmatory factor analysis was conducted to examine the motives and sustainable consumption dimensions. Among both consumer groups, the factors *prestige*, *money saving* and *job risk* load on the egoistic motive dimension, the altruistic motive dimension includes *future generations*, *social effects*, *life quality* and *general benefit* whereas the biospheric motive dimension just includes the factor *nature*. Besides, the items *price*, *packaging*, *local products*, *green stores* and *unethical companies* loaded on the sustainable consumption factor. To measure construct reliability for the dimensions including more than one factor, we use Cronbach's alpha throughout the paper: egoistic motive (Spanish consumers: 0.505 vs. German consumers: 0.415), altruistic motive concern (0.688; 0.687), sustainable consumption (0.743; 0.691). The egoistic motive dimension does not accomplish the requested Cronbach's alpha value about 0.7.

By the means of structural equation modeling the correlations between the motives and sustainable consumption dimensions are measured (e.g. Milfont *et al.*, 2006). Multiple fit statistics are used to evaluate the degree to which data fit the model. A goodness of fit index (GFI) of 0.90 or greater and a root mean square error of approximation (RMSEA) of less than 0.10 can be interpreted as acceptable model fits (Hair *et al.*, 1998; Schultz, 2001). Overall acceptable fits were found for both German consumers (GFI = 0.91 and RMSEA = 0.072) and Spanish consumers (GFI = 0.91; and RMSEA = 0.089) samples. Further overall fits of both samples are shown in table 2 such as the Tucker-Lewis index (TLI) and the Comparative Fit index (CFI).

Table 2 Fit indices for structural equation model

	χ^2	<i>Df</i>	χ^2/df	<i>GFI</i>	<i>CFI</i>	<i>RMSEA</i>	<i>TLI</i>
Spaniards	299.05	63	4.75	0.91	0.82	0.089	0.771
Germans	211.25	63	3.35	0.91	0.84	0.072	0.802

In the Spanish sample the three motive concerns have significant ($p < 0.01$) positive paths to sustainable consumption as Table 3 indicates. The altruistic motive concern is highly significant and has the strongest path to sustainable consumption ($\beta = 0.53$; $p < 0.01$). A lower significant correlation exists between the egoistic motive concern and sustainable consumption ($\beta = 0.25$; $p < 0.01$). The lowest significant correlation exists between the biospheric motive and sustainable consumption ($\beta = 0.11$; $p < 0.01$). Among the German consumers, a negative non-significant path is measured between the egoistic motive concern and sustainable consumption ($\beta = -0.12$; $p > 0.05$). The biospheric motive path is significant positive ($\beta = 0.11$; $p < 0.05$). However, the altruistic motive concern has a highly significant positive path to sustainable consumption ($\beta = 0.53$; $p < 0.01$).

Table 3 Standardized Coefficients for the Structural Equation Model

	Spanish consumers		German consumers	
	<i>Estimate</i>	<i>p</i>	<i>Estimate</i>	<i>p</i>
Egoistic → SC	0.25	0.007**	-0.12	ns
Altruistic → SC	0.53	0.000**	0.60	0.000**
Biospheric → SC	0.11	0.004**	0.05	0.035*

**Significant at 1% level; *Significant at 5% level

In both countries, the altruistic motive is the dominant motive, leading consumers in their purchase decisions. This finding supports H2 partially as Spanish and German consumers attach a different importance to the egoistic and the biospheric motive. Comparing both consumer groups, the altruistic motive exhibits higher estimates among the German consumers, supporting H2a. The biospheric motive however provides stronger estimates among the Spanish consumers, disproving our expectations in H2b. Among both consumer groups the biospheric motive concern is positively correlated with sustainable consumption, supporting Schultz (2001) who stated a consistently positively correlation. These results give evidence about differing

consumption-leading motives between German and Spanish consumers and enable retailers to respond to local markets and consumer needs.

Conclusions

Our research demonstrates varied perceptions of the sustainable product offer between German and Spanish consumers, since our results confirm a higher perceived visibility among the German consumers like we had hypothesized. As a consequence, we also stated a higher perceived availability of sustainable products in German retailing. These results emphasize our expectations about a higher existing environmental awareness among the German consumers due to a more developed sustainable market in Germany. Our findings support Papaoikonomou *et al.* (2011) who detected that sustainability in Spanish retail is still in an early phase of development.

Regarding the personal motives leading to sustainable consumption, our results indicate that our structural equation model provided good fit for German and for Spanish consumers and support Stern and Dietz's (1994) value basis theory, differentiating between altruistic, egoistic and biospheric motives. Our results suggest that in the first place, consumers of both countries buy sustainable products on the basis of the altruistic motive concern. In the second place, the egoistic motive influences the Spanish consumer in his purchase decision whereas no significant results were found among the German consumers. In the third place, the biospheric motive can be determined among both cultures as the weakest motive concern influencing purchase decisions. Taken together we conclude that Spanish as well as German consumers mainly buy sustainable products because of their impact on society. Concerns about the impact on the eco-system are inferior to the social impact.

Our results suggest that consumption driving motives and especially consumer perception vary among the analyzed cultures. This supports the theory of De Mooij and Hofstede (2002), who stated large differences among the value systems of consumers in different European countries. Explanations for these circumstances can

be versatile as many factors influence perception and environmental motives. Consumers might have different levels of environmental awareness and concern (Schrum *et al.*, 1994). Probably, consumers are also skeptical toward the sustainable marketing of companies or maybe they do not believe in the effectiveness of their own environmental contribution. Finally, different information conditions could cause our different results.

Implications for practice and research

Interpreting our results, we suggest that retailers need to promote sustainable products especially in Spain to raise the consumer awareness of their sustainable performance. Doing so, retailers should focus especially on the social impact of their products. However, personal interests should not be forgotten either, especially among the Spanish consumers. Through special advertising efforts focusing on personal advantages such as money saving or personal health and a better visual product presentation, retailers possibly raise consumer awareness.

We believe that further research should focus on the external circumstances of German and Spanish consumers as their perception of sustainable products is not only influenced by their consumption motives. Further influential factors to be analyzed could be environmental awareness, market size or product communication. The analysis of the sustainable market in Spain would be especially reasonable, since we do not know whether the low perception is caused by a weaker sustainable product offer. Moreover, it may be worthwhile to investigate the pattern behind the displayed difference in consumption motives in Spain and Germany in more detail. It could be interesting to find out if these consumption motives correlate with specific personality traits or other socio-demographic characteristics. Research in this area may be promising for retailers who try to segment their customer base and help them to market their sustainable products by addressing the specific needs and particular consumption motives of their customers.

References


- Brundtland Report (1987) *World Commission on Environment and Development (WCED). Our Common Future*. University Press, Oxford, UK.
- Dawar, N. & Parker, P. (1994) Marketing universals: consumers' use of brand, name, price, physical appearance and retailer reputation as signals of product quality. *J Mark*, **58**, 81-95.
- Deng, J., Walker, G. & Swinnerton, G. (2006) A comparison of environmental values and attitudes between Chinese in Canada and Anglo-Canadians. *Environment and Behavior*, **38**, 22-47.
- De Mooij, M. & Hofstede, G. (2002) Convergence and divergence in consumer behavior: implications for international retailing. *Journal of Retailing*, **78**, 61-69.
- De Pelsmacker, P., Driesen, L. & Rayp, G. (2005) Do consumers care about ethics? Willingness to pay for fair-trade coffee. *Journal of Consumer Affairs*, **39**, 363-385.
- De Pelsmacker, P. & Janssens, W. (2007) A model for Fair Trade buying behavior: the role of perceived quantity and quality of information and of product-specific attitudes. *Journal of Business Ethics*, **75**, 361-380.
- Elkington, J. (2004) Enter the triple bottom line. In *The Triple Bottom Line: Does It All Add Up?* (ed. by A. Henriques & J. Richardson), pp. 1-16. EarthScan, London, UK.
- Ellen, P.S., Mohr, L.A. & Webb, D.J. (2000) Charitable programs and the retailer: do they mix? *Journal of Retailing*, **76**, 393-406.
- European Commission (2009) *Towards a greener retail sector*. Ivry-sur-Seine, France.
- Freestone, O.M. & McGoldrick, P.J. (2008) Motivations of the ethical consumer. *Journal of Business Ethics*, **79**, 445-467.
- Ganesan, S., George, M., Jap, S., Palmatier, R.W. & Weitz, B. (2009) Supply chain management and retailer performance: emerging trends, issues and implications for research and practice. *Journal of Retailing*, **85**, 84-94.
- Gladwin, T.N., Kennelly, J.J. & Krause, T.S. (1995) Shifting paradigms for sustainable development: implications for management theory and research. *The Academy of Management Review*, **20**, 874-907.

- Goldsmith, E.B. & Goldsmith, R.E. (2011) Social influence and sustainability in households. *International Journal of Consumer Studies*, **35**, 117-121.
- Groeber, J. (2008) Betting the House on Private Brands, *Stores*, [WWW document]. URL <http://www.stores.org/stores-magazine-february-2008/betting-house-private-brands> (accessed on 25 September 2012)
- Hair, J.F., Anderson, R.E., Tatham, R.L. & Black, W.C. (1998) *Multivariate Data Analysis*, 5th edn. Prentice-Hall, Upper Saddle River, NJ.
- Hawken, P. (1993) *The Ecology of Commerce: A Declaration of Sustainability*. Harper Business, New York.
- Hingley, M.K. (2005) Power imbalanced relationships: cases from UK fresh food supply. *International Journal of Retail & Distribution Management*, **33**, 551-569.
- Hofstede, G. (1980) *Culture's Consequences: International Differences in Work-Related Values*. Sage, Beverly Hills, CA.
- Hofstede, G. (2001) *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations*. Sage, Thousand Oaks, CA.
- Hoyle, R.H. (1995) The structural equation modeling approach: basic concepts and fundamental issues. In *Structural equation modeling: concepts, issues, and applications*, (ed. by R.H. Hoyle), pp. 1-15. Sage, Thousand Oaks, CA.
- Instituto Nacional de Estadística (INE) (2011) Spain's population data. [WWW document]. URL http://www.ine.es/inebmenu/mnu_cifraspob.htm (accessed on 18 September 2012)
- Lichtenstein, D.R., Drumwright, M.E. & Braig, B.M. (2004) The effect of corporate social responsibility on customer donations to corporate-supported nonprofits. *Journal of Marketing*, **68**, 16-32.
- Luo, X. & Bhattacharya, C.B. (2006) Corporate social responsibility, customer satisfaction, and market value. *Journal of Marketing*, **70**, 1-18.
- Maignan, I. (2001) Consumers' perceptions of corporate social responsibilities: a cross-cultural comparison. *Journal of Business Ethics*, **30**, 57-72.

- Mainierie, T., Barnett, E.G., Valdero, T.R., Unipan, J.B. & Oskamp, S. (1997) Green buying: the influence of environmental concern on consumer behavior. *Journal of Social Psychology*, **137**, 189–204.
- Milfont, T., Duckitt, J. & Cameron, L. (2006) A cross-cultural study of environmental motive concerns and their implications for pro-environmental behavior. *Environment and Behavior*, **38**, 745-767.
- Mohr, L.A. & Webb, D.J. (2005) The effects of corporate social responsibility and price on consumer responses. *Journal of Consumer Affairs*, **39**, 121-147.
- Oyserman, D. & Lee, S. (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological Bulletin*, **134**, 311-342.
- Papaoikonomou, E., Ryan, G. & Ginieis, M. (2011) Towards a holistic approach of the attitude behavior gap in ethical consumer behaviours: empirical evidence from Spain. *International Advances in Economic Research*, **17**, 77-88.
- Pinto, D.C., Nique, W.M., Añaña, E.S. & Herter, M.M. (2011) Green consumer values: how do personal values influence environmentally responsible water consumption? *International Journal of Consumer Studies*, **35**, 122-131.
- Schaefer, A. & Crane, A. (2005) Addressing sustainability and consumption. *Journal of Macromarketing*, **25**, 76-92.
- Schrum, L.J., Lowrey, T.M. & McCarty, J.A. (1994) Recycling as a marketing problem: a framework for strategy development. *Psychology and Marketing*, **11**, 393-416.
- Schultz, W. (2001) The structure of environmental concern: concern for self, other people, and the biosphere. *Journal of Environmental Psychology*, **21**, 327-339.
- Schultz, P.W. (2002) Environmental attitudes and behaviors across cultures. *Online Readings in Psychology and Culture*, Unit 8. [WWW document]. URL <http://scholarworks.gvsu.edu/orpc/vol8/iss1/4>. (accessed on 26 September 2012)
- Schultz, P., Gouveia, V., Cameron, L., Tankha, G., Schmuck, P. & Franek, M. (2005). Values and their relationship to environmental concern and conservation behavior. *Journal of Cross-Cultural Psychology*, **36**, 457-475.
- Schwartz, S. (1977). Normative influences on altruism. *Advances in Experimental Social Psychology*, **10**, 221-279.

- Sen, S. & Bhattacharya, C.B. (2001) Does doing good always lead to doing better? Consumer reactions to corporate social responsibility. *Journal of Marketing Research*, **38**, 225-243.
- Statistisches Bundesamt (DeStatis) (2011) Germany's population data. [WWW document]. URL <https://www-genesis.destatis.de/genesis/online/link/tabelleErgebnis/12411-0020> (accessed on 18 September 2012)
- Stern, P., Dietz, T. & Kalof, L. (1993) Value orientations, gender, and environmental concern. *Environment and Behavior*, **25**, 322-348.
- Stern, P.C. & Dietz, T. (1994) The value basis of environmental concern. *Journal of Social Issues*, **50**, 65-84.
- Stern, P.C., Kalof, L., Dietz, T. & Guagnano, G.A. (1995) Values, beliefs, and proenvironmental action: attitude formation toward emergent attitude objects. *Journal of Applied Social Psychology*, **25**, 1611-1636.
- Wagner, T., Lutz, R. & Weitz, B.A. (2009) Corporate hypocrisy: overcoming the threat of inconsistent corporate social responsibility perceptions. *Journal of Marketing*, **73**, 77-91.
- Wiese, A., Kellner, J., Lietke, B., Toporowski, W. & Zielke, S. (2012) Sustainability in retailing – a summative content analysis. *International Journal of Retail & Distribution Management*, **40**, 318-335.
- Ytterhus, B.E., Arnestad, P. & Lothe, S. (1999) Environmental initiatives in the retailing sector: an analysis of supply chain pressures and partnerships. *Eco-Management and Auditing*, **6**, 181-188.

Annex 3: Paper acceptance at World Congress of Marketing (Melbourne)



AMSWMC 16 - Paper Acceptance
AMSWMC 16 para: Johannes Stolz

08/12/2012 01:58

Historial: Este mensaje ha sido remitido.

AMSWMC 16 - Paper Acceptance

Dear Authors,

congratulations, your manuscript has been accepted for a competitive paper session presentation at the 2013 AMS World Marketing Congress will be held July 17-20 in Melbourne, Australia.

Following this informal notification, you will soon receive detailed instructions about the next steps.

Again, congratulations! We look forward to working with you and having you participate in the congress.

Track Chairs

John Cadogan and Raffaele Donvito

Please contact us at the following e-mails if you have any questions:
J.W.Cadogan@lboro.ac.uk
raffaele.donvito@unifi.it

Consumers' perception of corporate sustainable activities: an analysis of the German and the Spanish consumer

Introduction

This paper examines whether there exist cross-national differences regarding the perceived corporate sustainable activities. Comparing German and Spanish consumers seems to be relevant as there are large differences among the values and the perceptions of the consumers in the different European countries. Companies need to be sensitive, responding to local markets and consumer needs. Our study suggests that Spanish consumers tend to exhibit a weaker perception of corporate sustainable activities due to a stronger environmental awareness among the German consumers. Our research is expected to shed light on the aspects companies need to focus on to raise the consumer's attention about the companies' sustainable activities.

Background

The perception of social responsibility is very important as it affects the image of brands and firms, their financial performance, and the propensity of consumers to buy specific brands and patronize certain retailers (Luo and Bhattacharya, 2006). Companies need to invest in corporate social responsibility (CSR) activities in order to generate favorable stakeholder attitudes and better support behaviors such as purchase or the investment in the company. Moreover the intention is to build corporate image and strengthen stakeholder-company relations (Du, Bhattacharya and Sen, 2010). However, besides the arising costs, CSR can also be a source of opportunity, innovation and a competitive advantage (Porter and Kramer, 2006). Besides the opportunities corporate sustainable activities offer, they can also cause reputational risks (Dawkins, 2004) because although stakeholders require more information about the corporate sustainable activities, they are also quickly exhausted when companies promote their CSR efforts too aggressively (Du, Bhattacharya and Sen, 2010). As the consumer perception is a key factor to raise benefit, companies have a special interest in improving their sustainable communication on an

international level. A growing approximation of the European Union countries, expanding European retailers and cross-national marketing strategies indicate converging economic systems in Europe. However, there is evidence that value systems are not converging since consumer behavior, reflected in consumption and product use, differ among the European countries (De Mooij and Hofstede, 2002).

Research Methods

An online-based questionnaire about sustainable purchasing was addressed to consumers of different age groups in Germany and Spain. Our data was collected during a period of two months between November and December 2011. In total 989 usable questionnaires were returned; 503 from Spain and 486 from Germany. Among the Spanish consumers, males composed 53.9 per cent ($n = 271$) and females composed 46.1 per cent ($n = 232$). Respondents' ages ranged from 18 to 72 years ($m = 39.8$). Among the German consumers males composed 46.5 per cent ($n = 226$) and females composed 53.5 per cent ($n = 260$). Respondents' ages ranged from 18 to 78 years ($m = 32.1$). Both samples represent approximately the gender balance of the Spanish and the German population according to the latest census of both countries accomplished by the German and the Spanish Institute of Statistics [Statistisches Bundesamt (DeStatis), 2011; Instituto Nacional de Estadística (INE), 2011]. The questionnaire was divided into five sections, requiring information about environmental awareness and interest, consumption-driving motives, corporate responsibility, sustainable communication, and the perception of sustainability in retailing. This research is based on the corporate sustainable activities-based items. Demographic information such as age, gender and education were also included. By the use of mean value comparisons, we compare in a first step the consumers' perception of corporate sustainable activities in Germany and in Spain. In a second step, the relation between the perception-based items and sustainable consumption items is identified.

Results and Discussion

Taking into consideration the perceived communication, German consumers scored significantly ($p < .05$) higher on the items *companies in my country advertise their sustainable products sufficiently in the media* ($M = 2.98, SD = 1.39$ vs. $M = 2.64, SD = 1.25$ for Spanish consumers) and *companies in my country provide information on environmental impact on their products* ($M = 2.62, SD = 1.42$ vs. $M = 2.33, SD = 1.27$ for Spanish consumers) as Table 1 shows. This suggests a lower perceived communication of corporate activities in Spain.

Table 1 Mean value comparison of consumer perception

Companies in my country...	Spaniards (n=503)		Germans (n=486)		T value	p
	M	SD	M	SD		
...take the protection of the environment seriously.	2.73	1.291	3.62	1.442	-10.18	0.000**
...advertise their sustainable products sufficiently in the media.	2.64	1.247	2,98	1.388	-4.12	0.025*
...provide information on environmental impact on their products.	2.33	1.268	2.62	1.422	-3.36	0.000**
...try to reduce pollution of their products.	2.79	1.347	3.19	1.374	-4.55	n.s.
...offer sufficiently sustainable products in their range.	2.42	1.119	2.83	1.286	-5.33	0.002**
...pay attention to the development process of new sustainable products.	2.89	1.265	3.16	1.373	-3.19	0.018*

**Significant at 1% level. *Significant at 5% level.

The p values were calculated with a degree of freedom of 989 (sum of both samples).

Further examination of the perceived sustainable activities demonstrates that, German consumers were more supportive of the items *offer sufficiently sustainable products in their range* ($M = 2.83, SD = 1.29$ vs. $M = 2.42, SD = 1.12$ for Spanish consumers) and *pay attention to the development process of new sustainable products* ($M = 3.16, SD = 1.37$ vs. $M = 2.89, SD = 1.27$ for Spanish consumers). No significant

difference ($p > .05$) was measured for the item *try to reduce pollution of their products* ($M = 3.19, SD = 1.37$ for German consumers vs. $M = 2.79, SD = 1.35$ for Spanish consumers). In general, German consumers were also more likely to endorse the item *take the protection of the environment seriously* ($M = 3.62, SD = 1.44$ vs. $M = 2.73, SD = 1.29$ for Spanish consumers). More quantitative research will be undertaken to measure the influence of the perception-based items on sustainable consumption.

As expected, our research demonstrates varied perceptions of corporate sustainable activities between German and Spanish consumers like we had hypothesized. A higher perception among the German consumers emphasizes our expectations about a higher existing environmental awareness due to a more developed sustainable market in Germany (Papaoikonomou *et al.*, 2011). Interpreting our results, we suggest that especially in Spain, companies need to raise the consumer awareness about their sustainable activities. Doing so, companies should focus especially on the social impact of their products²². Through special advertising efforts and a better visual product presentation, companies possibly raise consumer awareness.

²² Based on a structural equation model, analyzing the impact of environmental motives on sustainable consumption in our study 'Consumers' perception of the environmental performance in retail stores: an analysis of the German and the Spanish consumer' (accepted by International Journal of Consumer Studies; to be published in March 2013)

References

- Dawkins, J. (2004) Corporate responsibility: The communication challenge. *Journal of Communication Management*, **9**, 108-119.
- De Mooij, M. & Hofstede, G. (2002) Convergence and divergence in consumer behavior: implications for international retailing. *Journal of Retailing*, **78**, 61-69.
- De Pelsmacker, P. & Janssens, W. (2007) A model for Fair Trade buying behavior: the role of perceived quantity and quality of information and of product-specific attitudes. *Journal of Business Ethics*, **75**, 361-380.
- Du, S., Bhattacharya, C.B. & Sen, S. (2010) Maximizing business returns to corporate social responsibility (CSR): the role of CSR communication. *International Journal of Management Reviews*, **12**, 8-19.
- Lichtenstein, D.R., Drumwright, M.E. & Braig, B.M. (2004) The effect of corporate social responsibility on customer donations to corporate-supported nonprofits. *Journal of Marketing*, **68**, 16-32.
- Luo, X. & Bhattacharya, C.B. (2006) Corporate Social Responsibility, Customer Satisfaction, and Market Value, *Journal of Marketing*, **70**, 1-18.
- Maignan, I. (2001) Consumers' perceptions of corporate social responsibilities: a cross-cultural comparison. *Journal of Business Ethics*, **30**, 57-72.
- Papaoikonomou, E., Ryan, G. & Ginieis, M. (2011) Towards a holistic approach of the attitude behavior gap in ethical consumer behaviours: empirical evidence from Spain. *International Advances in Economic Research*, **17**, 77-88.
- Porter, M.E. & Kramer, M.R. (2006) Strategy and Society: the link between competitive advantage and corporate social responsibility. *Harvard Business Review*, **84**, 78-92.
- Sen, S. & Bhattacharya, C.B. (2001) Does doing good always lead to doing better? Consumer reactions to corporate social responsibility. *Journal of Marketing Research*, **38**, 225-243.
- Sen, S., Bhattacharya, C.B. & Korschun, D. (2006) The role of corporate social responsibility in strengthening multiple stakeholder relationships: a field experiment. *Journal of the Academy of Market Science*, **34**, 158-166.

Annex 4: Paper acceptance at Conference Hispano-Lusas 2013 (Málaga)



Para: <hmolina@etea.com>, <jstolz@etea.com>,
cc:
cco:
Asunto: ACEPTACIÓN PONENCIA JORNADAS HISPANO-LUSAS
De: anavarro@us.es - Domingo 16/12/2012 16:57

2 anexos



ES-151B.pdf ES-151A.pdf

Estimados autores de la ponencia "**Consumers' perception of corporate sustainable activities: an analysis of the German and the Spanish consumer**", aunque recibiréis el correspondiente mensaje de la Comisión Organizadora de las XXIII Jornadas Hispano-Lusas de Gestión Científica (<http://www.xxiiijomadashispanolusasmalaga2013.com/es/index.php>) con la **ACEPTACIÓN** de la ponencia, en nombre del Comité Científico español, te adjunto los informes de evaluación de los revisores. Las valoraciones realizadas y las puntuaciones otorgadas en cada apartado es responsabilidad exclusiva de los revisores. Tales comentarios pueden constituir una guía para los autores con objeto de mejorar el presente trabajo en el futuro o bien ofrecer nuevas orientaciones sobre la temática tratada. En cualquier caso, desde el Comité Científico Español te felicitamos por la aceptación del trabajo y te animamos a que te inscribas en las Jornadas. Recuerda que la fecha límite de inscripción a precio reducido es el 30 de diciembre de 2012. Aprovechamos, además, para felicitarte las fiestas navideñas y desearte un próspero año nuevo. Un saludo

Antonio Navarro García

Secretario General de las Jornadas Hispano-Lusas de Gestión Científica

Universidad de Sevilla

Consumers' perception of corporate sustainable activities: an analysis of the German and the Spanish consumer

Johannes Stolz, (jstolz@etea.com)
Horacio Molina Sánchez, (hmolina@etea.com)
Departamento de Contabilidad y Economía Financiera
University LOYOLA Andalusia
Escritor Castilla Aguayo, 4
14004 Córdoba, España

ABSTRACT

This study focuses on the consumer's perceived corporate sustainable activities in a cross-national comparison, contrasting German ($n = 486$) and Spanish ($n = 503$) consumers. We find German respondents to perceive a higher corporate sustainable behavior and better provided information, ascertaining the highest perception among males between 18 and 25 years in Germany. Among the Spanish respondents, males were identified to exhibit the highest perception, whereas age proved to be not an influencing factor. Demonstrating different perception levels between the analyzed countries, our results indicate a better corporate sustainability level in Germany. Findings aim to help especially multinational companies to improve their information system, segment their customer base and define their marketing strategy.

KEYWORDS

Sustainable consumption, corporate communication, consumer, perception, Spain, Germany

1. INTRODUCCIÓN

Companies need to invest in corporate social responsibility (CSR) activities in order to generate favorable stakeholder attitudes and better support behaviors such as purchase or the investment in the company. Moreover the intention is to build corporate image and strengthen stakeholder-company relations (Du, Bhattacharya and Sen, 2010). However, besides the arising costs, CSR can also be a source of opportunity, innovation and a competitive advantage (Porter and Kramer, 2006). Besides the opportunities corporate sustainable communication offers, it can also cause reputational risks (Dawkins, 2004) because although stakeholders require more information about the corporate sustainable activities, they are also quickly exhausted when companies promote their CSR efforts too aggressively (Du, Bhattacharya and Sen, 2010). Companies often do not satisfy the stakeholders' requirements sufficiently which explains why they do not get full credit for their responsible corporate behavior (Dawkins, 2004). However, the perception of environmental sustainable information varies among cultures. This may have various reasons as consumer perception is influenced by product offer, consumer knowledge and also by product information (De Pelsmacker and Janssens 2007). As consumer behavior varies among European countries, reflected in consumption and product use (De Mooij and Hofstede, 2002), need for more research on cultural differences in consumer perceptions and consumer behavior is apparent" as Hyllegard et al. (2005) quote.

In a cross-national comparison, we analyze the consumer perception of corporate sustainable activities in Germany and in Spain. Comparing German and Spanish consumers seems to be relevant because of the expected approximation among European citizens regarding their consumption behavior and the differing cultural values among Germans and Spaniards (Hofstede, 1980). Similar characteristics of the countries include unification through the European Union; Germany since 1952 and Spain since 1986. Despite sharing the European culture, both countries exhibit fundamental differences, which might influence people's perception. In contrast to Spain, Germany always tended to be a more industrialized country. This is in line with Loxley (1998), who considered Northern countries to be more industrialized than Southern countries. Besides, Wood suggests (1995) that there are important ethical differences between highly industrialized countries of the North and less industrialized countries of the South. Polonsky et al. (2001) adds that Southern European countries do not exhibit the ethical characteristics of the Northern countries, describing Southern countries as "less" developed in regards to environmental sustainable issues. This cross-national comparison is an extension to previous studies comparing consumers' attitudes between Southern and Northern European countries as it exhibits the level of corporate information about sustainable activities in both countries. Considering not only culture to be an influential factor on perception, we also analyze the effect of socio-demographic factors such as age and gender. The objective of our research is to:

- (3) Determine the impact of country on perceived corporate sustainable activities.
- (4) Create a demographic profile of the consumer with the highest perception in both countries.

Companies have a special interest in further research as consumers react sensitive to corporate sustainable activities. Especially expanding European companies are addressed, who need to be sensitive to local consumer needs and selected market conditions (Hyllegard et al. 2005). The level of consumer responsibility is an indicator of the efficiency of company's communication about sustainable activities. More information about the environmentally sensitive consumer helps companies improve their environmental profile, segment their customer base and define their marketing strategy. Our research is expected to shed light on the aspects companies need to focus on to raise the consumer's attention.

2. LITERATURE REVIEW

2.1 Defining Sustainability

In the current literature, several sustainability definitions appear often using differing terminology and sometimes overlapping in their meanings (Wiese, et al., 2012). Sustainability was defined in 1987 by the World Commission on Environment and Development (WCED) as follows: "Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs". In other words: meeting the needs of people today without risking the development opportunities and the choice of lifestyle of future generations. Sustainability can be seen in terms of balancing economic, ecological and social goals and consequences. This is also known as the "Triple Bottom line" approach (Gladwin, Kennelly and Krause, 1995; Elkington, 2004). Goldsmith and Goldsmith (2011) define sustainability as "everyday practices multiplied across the 6.4 billion people in the world that impact the air, water and earth". In conclusion, a common understanding of "sustainability" does not exist which leads to a far-reaching use by the companies (Hartmann et al., 2007). This article is based on the ecological aspect of sustainability, supporting Hawken (1993) who defines sustainability as an environment-centric platform on which trade can be conducted as long as natural capacities are not reduced in order to protect future generations.

2.2 Corporate sustainable activities

Corporate sustainable activities are manifold and can be realized through initiatives for instance. Initiatives mean the company involvement in charitable causes such as donations. Companies donate every year millions of dollars to nonprofit organizations (Sen and Bhattacharya 2001; Lichtenstein, Drumwright and Braig, 2004). At present many companies, especially the multinational ones publish

CSR reports within their annual report or in separate sustainability reports in order to inform the stakeholders about their responsible activities (Porter and Kramer, 2006).

Corporate communication is an important tool for a company to inform stakeholders about their activities and products. Stakeholders react by not just buying more products but also by supporting the company through investing in the company or seeking employment (Sen et al., 2006). Through yearly published sustainability reports, companies usually inform the stakeholders about results and progress of their ecologic, economic and social achievements. Published information provides a basis for the ratings and rankings which are published by non-governmental organizations (NGOs). This information however does not really affect the consumer in his purchase decision but even more other stakeholders such as government policies, NGOs or investors. In order to communicate with consumers, companies choose a diverse choice of media channels through which marketing communications can be sent to customers. Those include traditional communication ways such as television, mail or telemarketing but also more recent communication ways such as internet banners, e-mail, blogs or mobile phone communications (Danaher and Rossiter, 2011).

Mohr and Webb (2005) state that many companies only inform about the good things they are doing, which is why consumer trust of corporate communications is low. Webb and Mohr (1998) further mention that consumers develop more confidence if companies demonstrate a long-term commitment to an issue such as the reduction of environmental damage or to a nonprofit organization. As consumer perception is a key factor to raise the benefit, companies especially need to know what to communicate (message content) and where to communicate (message channel) (Du et al. 2010).

2.3 Consumer perception

A positive perception of sustainable corporate activities is of special interest for a corporation as it needs to satisfy the special needs of its stakeholders. Consumer perception affects the image of brands and firms, their financial performance, and the propensity of consumers to buy specific brands and patronize certain retailers (Luo and Bhattacharya, 2006). Perception influences the consumers' attitudes toward the company (Lichtenstein, Drumwright and Braig, 2004) and impacts on the consumer behavior (De Pelsmacker and Janssens, 2007). Mohr and Webb (2005) further state that perceived information influences the purchase behavior of the consumer. As previous research demonstrates, especially in developed countries, consumers pay special attention to the environmental behavior of companies (Wagner, Lutz and Weitz, 2009). Therefore marketing programs are launched by companies to raise the consumer awareness about their sustainable product offer. Still, it is important to spread positive information about sustainability as Sen and Bhattacharya (2001) found out that negative information about CSR has stronger effects on the consumer than positive information.

Lichtenstein, Drumwright and Braig (2004) quote that when a company undertakes a CSR activity to the extent that the initiative signals to consumers that the company has traits that overlap with their self-concept, consumers have higher degrees of identification with the company and, in turn, are more likely to support the company. Therefore, companies try to minimize skepticism through a better CSR communication. Consumers want to know about the sustainable activities of the company they buy their products from but they also quickly become skeptical if the CSR strategies are too aggressive (Du et al., 2010). Consumers act more positively to company's sustainable activities if they receive their information from neutral sources such as independent organizations (Simmons and Becker-Olsen, 2006). However, consumer perception varies among cultures. Following the definition of Kroeber and Kluckhohn (1952), we define culture as a consensus of the behavioral patterns of many individuals. This consensus is based on larger social units such as countries, comprehensive language communities or cross-national units such as the European culture.

2.4 Cultural impact

Previous experience in practice has shown that the impact of culture is far-reaching. Companies decided to adapt centralizing strategies in order to save money but a contrary effect was achieved as a centralized

control leads to less local sensitivity (De Mooij and Hofstede 2002). Companies must be sensitive to local consumer needs and selected market conditions (Koopman 2002, Keillor et al. 2001).

The appearing single European market in 1992 and the start of a new Europe with a single currency made marketers believe that consumers of the member countries become more similar through the consumption of the same products and similar television programs (De Mooij and Hofstede 2002). However, consumer behavior still differs to a huge extent between the European consumers (Hyllegard et al., 2005) caused by the different values, leading to consumption. Those consumer-leading values are based on the historical development of the particular countries and cannot be changed in a relatively short period of time. Economic systems in Europe converge increasingly but however there exists no evidence for converging values. In contrast, consumption and product use reflect the diverging consumer behavior among the member countries (De Mooij and Hofstede 2002). Schmidt and Pioch (1994) underline that the “Euro-consumer” has not yet arrived.

3. THEORY AND HYPOTHESES

In the following section, we will discuss our hypotheses relating to the perceived corporate sustainable communication. Sustainable consumer perception is influenced by several factors such as product offer, sustainable knowledge or information about sustainability (De Pelsmacker and Janssens, 2007). Papaoikonomou et al., 2011 found out that compared to Germany, the Spanish ethical market is still in the early phase of development. Existing social trend groups such as the LOHAS (‘Lifestyle of Health and Sustainability’) emphasize the advanced sustainable market and the consumer’s increasing sensitivity for sustainable consumption in Germany. Maignan (2001) underlines a high sensitiveness among the German consumers.

Carrero et al. (2010) name three obstacles which prevent the development of environmental ethical consumption in Spain, firstly the missing motivation, secondly additional expenses and finally the missing information, considering this last factor to be the most important obstacle. Consumers are not able to evaluate the ethical attributes of a product, if the company does not inform about the product’s social and ethical consequences. There are no specific regulations in Spain about the use or misuse of accompanying information on the products which avoids that the consumer is able to complain about a company’s behavior. This leads us to the following hypotheses:

Hypothesis 1a: German consumers exhibit higher perceived corporate sustainable activities than Spanish consumers.

Hypothesis 1b: German consumers exhibit higher perceived corporate sustainable information than Spanish consumers.

Previous studies investigating the linkage between gender and environmental issues have found significant relationships but indicate different results. Balderjahn (1988) for example found out that the relationship between environmentally conscious attitudes and the use of sustainable products was more intensive among men than among women. In contrast, Banerjee and McKeage (1994) suggest that women tend to be more environmental conscious than men. Bageac et al. (2011) observes in previous studies a more ethical behavior among women as well. Diamantopoulos et al. (2003) suggest differentiating between environmental knowledge and environmental behavior, measuring the gender effect. They believe that females exhibit higher environmental behavior and a higher concern, whereas males tend to have a better environmental knowledge. Supporting Barreiro et al. (2002) we believe that people with higher environmental concern also tend to have a better level of ecological knowledge which leads to a higher perceived corporate sustainable behavior and information. In consequence, we expect women to exhibit a higher perception than men, leading us to the following hypothesis:

Hypothesis 2a: Female consumer exhibit higher perceived corporate sustainable behavior than men.

Hypothesis 2b: Female consumer exhibit higher perceived corporate sustainable information than men.

Several prior studies have analyzed linkages between age and sustainable consciousness but mostly with non-significant relationships, indicating that younger people exhibit higher levels of knowledge

(Diamantopoulos et al. 2003). In contrast, De Pelsmacker et al. (2005) identified middle-aged consumers between 31 and 44 years as most sensitive, analyzing the perception towards Fair Trade as an example of social responsibility. An explanation for this could be that consumers following the modern existing Lifestyle of health and sustainability (LOHAS) (Kotler 2011) belong to this aging group to a high extent. LOHAS are enlightened consumers who search for individual but also social and environmental benefits when doing their purchase (Carrero et al. 2010). Environmental behavior expressed through responsible purchases often cause additional expenses (Uusitalo and Oksanen 2004) which can only be carried by people with a higher income level, which are mainly represented by middle-aged. We believe that these facts also influence the perception level of corporate behavior and corporate information. Defining the existing aging group between 35 and 49 years in our study as middle-aged, we propose the following hypothesis:

Hypothesis 3a: Consumers between 35 and 49 years exhibit higher perceived corporate sustainable behavior than other aging groups.

Hypothesis 3b: Consumers between 35 and 49 years exhibit higher perceived corporate sustainable information than other aging groups.

4. METHODOLOGY

4.1 Sample Characteristics

An online-based questionnaire about sustainable purchasing was addressed to consumers of different age groups in Germany and Spain. Our data was collected during a period of two months between November and December 2011. In total 989 usable questionnaires were returned; 503 from Spain and 486 from Germany (Table 1). Among the Spanish consumers, males composed 53.9 per cent ($n = 271$) and females composed 46.1 per cent ($n = 232$). Respondents' ages ranged from 18 to 72 years ($m = 39.8$). Among the German consumers males composed 46.5 per cent ($n = 226$) and females composed 53.5 per cent ($n = 260$). Respondents' ages ranged from 18 to 78 years ($m = 32.1$). Both samples represent approximately the gender balance of the Spanish and the German population according to the latest census of both countries accomplished by the German and the Spanish Institute of Statistics [Statistisches Bundesamt (DeStatis), 2011; Instituto Nacional de Estadística (INE), 2011].

Table 1 Demographic profile of respondents ($n = 989$)

Demographic profile	Germany	Spain
Gender		
Male	226 (46.5 %)	271 (53.9%)
Female	260 (53.5%)	232 (46.1%)
Age		
18-25	123 (25.3%)	22 (4.4%)
26-34	209 (43.0%)	140 (27.8%)
35-49	89 (18.3%)	246 (48.9%)
50 or over	65 (13.4%)	95 (18.9%)

4.2 Measures

The questionnaire was divided into two sections. In the first section the respondent's perception of environmental sustainability was measured. The responses were evaluated on a seven-point Likert-type scale ranging from strongly disagree (1) to strongly agree (7). In the second section, items were added to measure demographic data such as age and gender. The survey was translated into Spanish and German. Moreover, the survey was pre-tested.

Firstly, we average the behavior representing items: *take the protection of the environment seriously*, *try to reduce pollution of their products*, *offer sufficiently sustainable products in their range*, *focus on the development process of sustainable products* and the information representing items *advertise their sustainable products sufficiently in the media*, *inform about the environmental impact of their products*, to compare the mean values of the consumers' perceived corporate sustainable activities. A *t*-test is used to determine the differences for the perception-based items among the countries. The analysis is based on Maignan (2001) who analyzed the perception of corporate responsible activities, contrasting consumers in Germany, France and the United States.

Secondly, by the use of two repeated measures ANOVA, we measure the influence of socio-demographic variables, using age and gender as independent variables and the six perception-based variables as dependent variables. The age variable is classified into the four categories, 18-25 years, 26–34 years, 35-49 years, and 50 years or older (e.g. Swaidan 2011). Results of this analysis are supposed to discover differences in the perceived corporate sustainable activities between the four aging groups as well as between male and female in both countries. The analyses are run with SPSS v20.

5. RESULTS

Averaging the corporate behavior-based items, we find that German respondent score significantly higher on *take the protection of the environment seriously* ($p < .001$), *offer sufficiently sustainable products in their range* ($p < .001$), *focus on the development process of sustainable products* ($p < .01$) than Spaniards. A non-significant difference was detected for *try to reduce pollution of their product* ($p > .05$). Due to one non-significant relationship, Hypothesis 1a can only be partially approved. Consistent with *Hypothesis 1b*, we find that German respondent score significantly higher on: *advertise their sustainable products sufficiently in the media* ($p < .05$), *inform about the environmental impact of their products* ($p < .001$) when averaging the corporate information-based items.

Table 2 Mean value comparison of German and Spanish consumer perception

Companies in my country...	Spaniards (n=503)		Germans (n=486)		T value	p
	M	SD	M	SD		
...take the protection of the environment seriously.	2.73	1.291	3.62	1.442	-10.18	0.000***
...try to reduce pollution of their products.	2.79	1.347	3.19	1.374	-4.55	n.s.
...offer sufficiently sustainable products in their range.	2.42	1.119	2.83	1.286	-5.33	0.002**
...focus on the development process of sustainable products.	2.89	1.265	3.16	1.373	-3.19	0.018*
...advertise their sustainable products sufficiently in the media.	2.64	1.247	2.98	1.388	-4.12	0.025*
...inform about the environmental impact of their products.	2.33	1.268	2.62	1.422	-3.36	0.000***

***Significant at 0.1% level. **Significant at 1% level. *Significant at 5% level.

Among both consumer groups, gender had highly significant effects for every item as males scored significantly higher ($p < 0.01$) on every single item (Table 3). Among the German respondents, the greatest difference between men and women was found for the behavior-based item: *take the protection of the environment seriously*. Among the Spaniards, the highest difference between men and women was scored for the information-based item: *advertise their sustainable products sufficiently in the media*. Due to the lower scores among the female consumers in both consumer groups, our *Hypothesis 2a* and *Hypothesis 2b*, stating that women exhibit higher perceived corporate sustainable behavior and higher perceived information than men can be declined.

Table 3 Demographic effects on perceived corporate sustainable activities

	Country	Age				Gender	
		18-25	26-34	35-49	>50	Male	Female
...take the protection of the environment seriously.	GER	3.72**	3.79**	3.21**	3.42**	3.94***	3.33***
	ESP	2.45	2.60	2.78	2.85	2.89***	2.54***
...try to reduce pollution of their products.	GER	3.31	3.20	2.92	3.28	3.49***	2.92***
	ESP	2.59	2.65	2.82	2.99	3.00***	2.55***
...offer sufficiently sustainable products in their range.	GER	3.06*	2.84*	2.49*	2.80*	3.03***	2.65***
	ESP	2.36	2.29	2.40	2.68	2.57***	2.24***
...focus on the development process of sustainable products.	GER	3.24	3.19	2.93	3.26	3.37***	2.98***
	ESP	2.73	2.84	2.89	3.03	3.11***	2.65***
...advertise their sustainable products sufficiently in the media.	GER	3.16*	3.08*	2.64*	2.82*	3.25***	2.75***
	ESP	2.45	2.61	2.67	2.64	2.87***	2.36***
...inform about the environmental impact of their products.	GER	2.72*	2.73*	2.25*	2.57*	2.81***	2.45***
	ESP	2.27	2.24	2.29	2.58	2.51***	2.12***

***Significant at 0.1% level. **Significant at 1% level. *Significant at 5% level.

Cross-national differences were detected for the variable age. Among the German consumers, young consumers were detected to score the significant highest values for the variables *take the protection of the environment seriously* (26-35 years), *advertise their sustainable products sufficiently in the media* (18-25

years), *inform about the environmental impact of their products* (18-25 years) and *offer sufficiently sustainable products in their range* (18-25 years). No significant relationships were observed for the items *try to reduce pollution of their products* and *focus on the development process of sustainable products*. Among the Spanish consumers, age had no significant effect for all the variables. Thus, results based on age cannot be interpreted in the Spanish sample. In consequence, our *Hypothesis 3a* and *Hypothesis 3b*, stating that consumers between 35 and 49 years exhibit higher perceived corporate sustainable behavior and higher perceived information than other aging groups can be declined.

6. CONCLUSION AND IMPLICATIONS

This article sought to analyze the perception of corporate sustainable activities among the respondents and whether there exist cross-national differences between consumers in Germany and in Spain. Moreover, a socio-demographic profile of the highest perceiving consumer was supposed to be created.

Our results indicate that perceived corporate sustainable activities vary between the analyzed nations, as we identify a higher perception of sustainable information and mostly a higher perception of corporate sustainable behavior among the German consumers. Compared to other aging groups between the Germans, over all young people between 18 and 25 years perceive companies to act in a sustainable manner, whereas no higher perceiving aging group could be identified among the Spanish consumers.

Our results imply for practice that in Spain consumers of all ages and in Germany overall older people are in need of more information about the sustainable activities of the companies. We suggest companies to focus on different aspects in order to address these aging groups. Younger people could be advised of the money saving aspect when purchasing the company's products, whereas middle-aged or older people could be convinced by advising on the health aspect, which sustainable products provide. For companies in both countries it is further important to address female consumers as they often decide about the purchase of household goods. In general, consumers' attention could be raised through a better visual product presentation and a labeling of ethical products informing about the manufacturing process and the environmental consequences of the product use.

Further research should focus on the pattern behind the displayed perception in Germany and Spain in more detail. It could be interesting to find out to what extent perceived corporate sustainability is influenced by further factors such as ethical market size, personal motives, education and income level. Research in this area may be promising for companies who need to raise consumers' attention by increasing the efficiency of their sustainable activities

References

- Bageac, D., Furrer, O., & Reynaud, E. (2011): "Management students' attitudes towards business ethics: A comparison between France and Romania", *Journal of Business Ethics*, vol. 98, n° 3, pp. 391-406.
- Balderjahn, I. (1988): "Personality variables and environmental attitudes as predictors of ecologically responsible consumption patterns", *Journal of Business Research*, vol. 17, n° 1, pp. 51-56.
- Banerjee, B., & McKeage, K. (1994): "How green is my value: Exploring the relationship between environmentalism and materialism", *Advances in Consumer Research*, vol. 21, n° 1, pp. 147-152.
- Barreiro, J. M., Lopez, M. A., Losada, F., & Ruzo, E. (2002): "Análisis de las dimensiones cognoscitiva, y afectiva del comportamiento ecológico del consumidor", *Revista Galega de Economía*, vol. 11, n° 2, pp. 1-21.
- Carrero, I., Valor, C., & Rosa, J. M. (2010): Fomentando el consumo responsable en España. Documento de orientación de políticas públicas, pp. 1-12 http://www.council-consultores.com/uploads/documentos_adjunto/documentos_adjunto263.pdf.
- Danaher, P. J., & Rossiter, J. R. (2011): "Comparing perceptions of marketing communication channels", *European Journal of Marketing*, vol. 45, pp. 6-42.
- Dawkins, J. (2004): "Corporate responsibility: The communication challenge", *Journal of Communication Management*, vol. 9, n° 2, pp. 108-119.
- De Mooij, M., & Hofstede, G. (2002): "Convergence and divergence in consumer behavior: implications for international retailing", *Journal of Retailing*, vol. 78, pp. 61-69.
- De Pelsmacker, P., & Janssens, W. (2007): "A model for Fair Trade buying behavior: the role of perceived quantity and quality of information and of product-specific attitudes", *Journal of Business Ethics*, vol. 75, n° 4, pp. 361-380.
- Diamantopoulos, A., Schlegelmilch, B. B., Sinkovics, R. R., & Bohlen, G. M. (2003): "Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation", *Journal of Business Research*, vol. 56, n° 6, pp. 465-480.
- Du, S., Bhattacharya, C. B., & Sen, S. (2010): "Maximizing business returns to corporate social responsibility (CSR): the role of CSR communication", *International Journal of Management Reviews*, vol. 12, n° 1, pp. 8-19.
- Elkington, J. (2004): Enter the triple bottom line, in A. Henriques & J. Richardson (Eds.): *The triple bottom line: Does it all add up?*, EarthScan, London, UK, pp. 1-16.
- Gladwin, T. N., Kennelly, J. J., & Krause, T. S. (1995): "Shifting paradigms for sustainable development: implications for management theory and research", *The Academy of Management Review*, vol. 20, n° 4, pp. 874-907.
- Goldsmith, E. B., & Goldsmith, R. E. (2011): "Social influence and sustainability in households", *International Journal of Consumer Studies*, vol. 35, n° 2, pp. 117-121.
- Hartmann, L. P., Rubin, S. R., & Dhanda, K. K. (2007): "The communication of corporate social responsibility: United States and European Union multinational corporations", *Journal of Business Ethics*, vol. 74, n° 4, pp. 373-389.
- Hawken, P. (1993): *The ecology of commerce: A declaration of sustainability*, Harper Business, New York.
- Hofstede, G. (1980): *Culture's consequences: International differences in work-related values*, Sage, Beverly Hills, CA.
- Hyllegard, K. (2005): "Spanish consumers' perceptions of US apparel speciality retailers' products and services", *Journal of Consumer Behaviour*, vol. 4, n° 5, pp. 345-362.
- Instituto Nacional de Estadística (INE) (2011): *Spain's population data*, http://www.ine.es/inebmenu/mnu_cifraspob.htm
- Keillor, B. D., D'Amico, M., & Horton, V. (2001): "Global consumer tendencies", *Psychology & Marketing*, vol. 18, n° 1, pp. 1-19.
- Kotler, P. (2011): "Reinventing marketing to manage the environmental imperative", *Journal of Marketing*, vol. 75 n° 4, pp. 132-135.
- Kroeber, A. L., & Kluckhohn, C. (1952): *Culture: A critical review of concepts and definitions*, Harvard University, Cambridge, Mass.
- Lichtenstein, D. R., Drumwright, M. E., & Braig, B. M. (2004): "The effect of corporate social responsibility on customer donations to corporate-supported nonprofits", *Journal of Marketing*, vol. 68, n° 4, pp. 16-32.
- Loxley, J. (1998): *Interdependence, Disequilibrium and Growth: Reflections on the political economy of North-South relations at the turn of the century*, Macmillan Press, London, UK.
- Luo, X. & Bhattacharya, C. B. (2006): "Corporate Social Responsibility, Customer Satisfaction, and Market Value", *Journal of Marketing*, vol. 70, n° 4, pp. 1-18.
- Maignan, I. (2001): "Consumers' perceptions of corporate social responsibilities: A cross-cultural comparison", *Journal of Business Ethics*, vol. 30, n° 1, pp. 57-72.
- Mohr, L.A. & Webb, D.J. (2005): "The effects of corporate social responsibility and price on consumer responses", *Journal of Consumer Affairs*, vol. 39, n° 1, pp. 121-147.
- Papaoikonomou, E., Ryan, G., & Ginieis, M. (2011): "Towards a holistic approach of the attitude behavior gap in ethical consumer behaviours: empirical evidence from Spain", *International Advances in Economic Research*, vol. 17, n° 1, pp. 77-88.
- Polonsky, M. J., Brito, P. Q., Pinto, J., & Higgs-Kleyn, N. (2001): "Consumer Ethics in the European Union: A comparison of Northern and Southern views", *Journal of Business Ethics*, vol. 31, n° 2, pp. 117-130.
- Porter, M. E., & Kramer, M. R. (2006): "Strategy and Society: the link between competitive advantage and corporate social responsibility", *Harvard Business Review*, vol. 84, n° 12, pp. 78-92.
- Schrum, L. J., Lowrey, T. M., & McCarty, J. A. (1994): "Recycling as a marketing problem: a framework for strategy development", *Psychology and Marketing*, vol. 11, n° 4, pp. 393-416.
- Sen, S., & Bhattacharya, C. B. (2001): "Does doing good always lead to doing better? Consumer reactions to corporate social responsibility", *Journal of Marketing Research*, vol. 38, n° 2, pp. 225-243.
- Sen, S., Bhattacharya, C.B. & Korschun, D. (2006): "The role of corporate social responsibility in strengthening multiple stakeholder relationships: A field experiment", *Journal of the Academy of Market Science*, vol. 34, n° 2, pp. 158-166.
- Simmons, C. J., & Becker-Olsen, K. L. (2006): "Achieving Marketing objectives through social sponsorships", *Journal of Marketing*, vol. 70, n° 4, pp. 154-169.
- Schmidt, R., & Pioch, E. (1994): "The Elusive Euro-consumer", *Consumer Policy Review*, vol. 4, n° 1, pp. 4-9.
- Statistisches Bundesamt (Destatis) (2011): *Germany's population data*, <https://www-genesis.destatis.de/genesis/online/link/tabelleErgebnis/12411-0020>.
- Stern, P. C., & Dietz, T. (1994): "The basis of environmental concern", *Journal of Social Issues*, vol. 50, n° 3, pp. 65-84.
- Swaidan, Z. (2012): "Culture and consumer ethics", *Journal of Business Ethics*, vol. 108, pp. 201-213.

- Uusitalo, O., & Oksanen, R. (2004): "Ethical consumerism: A view from Finland", *International Journal of Consumer Studies*, vol. 28, n° 3, pp. 214-221.
- Wagner, T., Lutz, R., & Weitz, B. A. (2009): "Corporate hypocrisy: overcoming the threat of inconsistent corporate social responsibility perceptions", *Journal of Marketing*, vol. 73, n° 6, pp. 77-91.
- Webb, D. J., & Mohr, L. A. (1998): "A typology of consumer responses to cause-related marketing: from skeptics to socially concerned", *Journal of Public Policy and Marketing*, vol. 17, n° 2, pp. 226-238.
- Wiese, A., Kellner, J., Lietke, B., Toporowski, W., & Zielke, S. (2012): "Sustainability in retailing – a summative content analysis", *International Journal of Retail & Distribution Management*, vol. 40, pp. 318-335.
- Wood, G. (1995): "Ethics at the purchasing/sales interface: An international perspective", *International Marketing Review*, vol. 12, n° 4, pp. 7-19.
- World Commission on Environment and Development (WCED) (1987): *Our Common Future*, University Press, Oxford, UK.

Annex 5: Paper submission at Journal of Business Ethics (November 2012)

Journal of Business Ethics Consumers' Perception Of Their Responsibility Towards The Environment: A Comparison Between German And Spanish Consumers --Manuscript Draft--	
Manuscript Number:	
Article Type:	Original Article
Full Title:	Consumers' Perception Of Their Responsibility Towards The Environment: A Comparison Between German And Spanish Consumers
Section/Category:	Marketing & Consumer Behaviour - Scott Vitell
Keywords:	consumer perception; environmental ethical behavior; environmental knowledge; environmental responsibility; Germany; Spain.
Corresponding Author:	Johannes Stolz University Loyola Andalusia Córdoba, Córdoba SPAIN
Corresponding Author E-Mail:	jstolz@etea.com
Order of Authors:	Johannes Stolz Horacio Molina Sánchez Jesús Ramírez Sobrino
Abstract:	This study focuses on the consumer's responsibility towards the environment in a cross-national comparison, contrasting German (n = 486) and Spanish (n = 503) consumers. We find that Germans perceive individual responsibility as significantly more important than Spaniards, ranking the consumer's contribution to the environment as most important. Spanish respondents perceive their own environmental impact as inferior, considering government policies, companies and science to be more responsible for environmental contribution. The responsible consumer is recognized to be female and between 35 and 49 years in Germany, whereas in Spain no specific aging group could be identified. Our analysis detects a varying responsibility among the analyzed consumer groups and indicates different levels of environmental knowledge. Findings aim to help companies to improve their environmental profile, segment their customer base and define their marketing strategy.
Suggested Reviewers:	

Consumers' Perception Of Their Responsibility Towards The Environment: A Comparison Between German And Spanish Consumers

Abstract

This study focuses on the consumer's responsibility towards the environment in a cross-national comparison, contrasting German ($n = 486$) and Spanish ($n = 503$) consumers. We find that Germans perceive individual responsibility as significantly more important than Spaniards, ranking the consumer's contribution to the environment as most important. Spanish respondents perceive their own environmental impact as inferior, considering government policies, companies and science to be more responsible for environmental contribution. The responsible consumer is recognized to be female and between 35 and 49 years in Germany, whereas in Spain no specific aging group could be identified. Our analysis detects a varying responsibility among the analyzed consumer groups and indicates different levels of environmental knowledge. Findings aim to help companies to improve their environmental profile, segment their customer base and define their marketing strategy.

Keywords: Consumer perception, environmental ethical behavior, environmental knowledge, environmental responsibility, Germany, Spain

Introduction

Consumers have become an important factor regarding environmental issues as their purchasing behavior has a direct impact on many ecological problems (Laroche 2001). Jackson (2005) believes that consumer behavior is the key to the impact that society has on the environment. Many consumers are not aware of this, as they feel that their efforts make little real effect. They expect companies to protect the environment and behave ethically and base their purchasing decisions on these activities (Mohr et al. 2001). In addition, government policies, Non-Governmental

Organizations (NGOs) and science are perceived as responsible due to their direct or indirect impact on environmental ethical behavior.

However, responsibility for environmental issues cannot simply be shifted to their duty since all of consumers' purchases have an ethical, resource, waste and community impact. In other words, every time someone makes a purchase decision, there is the potential for that decision to a more or less responsible consumption contribution (McDonald et al. 2006). Carrigan and Attala (2001) proposed that consumers need to be convinced that their purchase behavior can make a difference in ethical terms. The so-called perceived consumer effectiveness has a significant impact on ethical consumption behavior (Roberts 1996; Kinnear et al. 1974; Tucker 1980) and indicates the level of environmental knowledge.

In a cross-national comparison, we analyze the consumer perception of individual responsibility in Germany and in Spain. Similar characteristics of the countries include unification through the European Union; Germany since 1952 and Spain since 1986. Despite sharing the European culture, both countries exhibit fundamental differences, which might influence people's perception of environmentally ethical behavior. Germany always tended to be a more industrialized country, whereas Spain always has been less industrialized. This is in line with Loxley (1998), who considered Northern countries to be more industrialized than Southern countries. Besides, Wood suggests (1995) that there are important ethical differences between highly industrialized countries of the North and less industrialized countries of the South. Polonsky et al. (2001) adds that Southern European countries do not exhibit the ethical characteristics of the Northern countries, describing Southern countries as "less" developed in regards to environmental issues. This cross-national comparison is an extension to previous studies comparing consumers' attitudes between Southern and Northern European countries as it exhibits perceived responsibility, leading to consumer attitudes. However, the consumer's ethical behavior is not only influenced by culture but also by personal characteristics (Ralston et al. 2009). Thus, we also measure the effect of age and gender on personal responsibility. Our paper is supposed to:

(4) Indicate the level of responsibility among consumers.

- (5) Explore the impact of country on consumer's responsibility.
- (6) Determine a demographic profile of the environmental consumer.

The present study is of special interest to companies who need to act environmentally responsible in order to be competitive on a national and international level due to the requirements of different stakeholders. Especially expanding European companies are addressed, who need to be sensitive to local consumer needs and selected market conditions (Hyllegard et al. 2005). The level of consumer responsibility is an indicator of the efficiency of company's sustainable activities. More information about the environmentally sensitive consumer helps companies improve their environmental profile, segment their customer base and define their marketing strategy.

The article is structured into five sections. The first section consists of the review of the literature our study is based on. The second section consists of the methodological approach and research design. The third section presents the results of the applied analysis. The fourth section consists of the discussion of our results with further interpretation. Finally the last section concludes our findings, quotes the limitations of this study and reveals some important implications for research and practice.

Literature Review

Environmental ethical behavior – A shared responsibility

Following Stern (2000, p. 408), we define environmental ethical behavior as a behavior which *“can reasonably be defined by its impact: the extent to which it changes the availability of materials or energy from the environment or alters the structure and dynamics of ecosystems or the biosphere itself”* (Stern 2000, p. 408). This definition does not only refer to the consumer's contribution to the environment but also to government policies, companies, NGOs and also science.

Consumers can contribute to the environment positively through the disposal of household waste or a careful use of water, directly impacting on the environment (Stern, Young and Druckman 1992). The indirect behavior describes the context in

which choices are made that directly cause environmental change (Rosa and Dietz 1998). Behaviors that affect international development policies, product prices on world markets, as well as national environmental and tax policies would be considered as examples of indirect behavior. The impact of indirect behavior should not be underestimated and can have a greater environmental impact than direct environmental ethical behavior. Jackson (2005) believes that consumer behavior is the key to the impact that society has on the environment. The actions that people take and the choices they make to consume environmental ethical products all have direct and indirect impacts on the environment, as well as on personal and collective well-being.

Companies have accepted their responsibility regarding the environment due to the varying environmental problems worldwide caused by corporate behavior. More companies than ever before are supporting ethical behavior (Solomon 2010, p. 16) as products and production processes are becoming cleaner leading to positive effects in the environment. Especially in the industrial countries, companies are increasing their sustainable activities as they have noticed that they can reduce pollution and increase profits simultaneously (Hart 1997). Hart further states that “corporations are the only organizations with the resources, the technology, the global reach, and ultimately, the motivation to achieve sustainability”. Companies’ power is far reaching and has no longer such a dependent role under the country’s government policies as it used to have before when the state was dominant and acting as a regulator (Crane and Matten 2004). Companies subordinated themselves also taking advantage of this system as for instance during the 1980s and 1990s companies in the U.S. exploited their liberties and started to behave socially irresponsible because of government deregulations (Campbell 2007). The role of the state in the traditional context has changed to a more international one due to the increasing globalization and converging economic systems. Nowadays, companies have more power as economic relationships go beyond national boundaries (Albareda et al. 2008). In consequence, political decisions are made on an international level, in terms of summits such as the United Nations Conference on Environment and Development (UNCED) or annual occurring climate

conferences. National governments convert the decisions and implement laws and policies to achieve the international goals. Governments can further motivate companies by means of subventions and financial support to adopt environmental friendly practices. When approving loans or assigning public contracts, governments usually prefer responsible companies such as those that are members of the Global Compact (Cuesta and Valor 2004), a platform founded by the United Nations, that companies can voluntarily join to comply with regulations regarding environmental protection (Bremer 2008).

The impact of NGOs on political decisions about environmental issues has increased as they have increased in number, power and influence since the 1980s (Keck and Sikkink 1998). They further impact on companies as they promote ethical and socially responsible business practices which lead to a positive change in corporate management, strategy, and governance (Doh and Teegen 2006). Doh and Guay (2003) found that different institutional structure and political legacies are important factors to explain the influence of NGOs in the policy-making process. Although NGOs often work across national boundaries on international projects, their impact is influenced by the national and regional context in which they operate. The relationship between government policies and NGOs can be described as a mutual relation, given that NGOs depend to a high extend on governmental decisions but they also influence them. Further responsibility is carried by scientific research as it is a creation of knowledge and derived recommendations, applied and implemented by other actors such as politicians, companies or consumers (Heise 2009).

Consumer perception

Perceived consumer effectiveness examines the extent to which the consumer has an impact on the environment. Findings suggest that a high level of perceived consumer effectiveness leads to a greater environmental consumer behavior (Roberts 1996; Kinnear et al. 1974; Tucker 1980). Consumers exhibit different perceptions about their impact on the environment. Socially conscious consumers accept that they do have a certain responsibility towards the environment. Others make excuses for not

contributing more and finally, some of them totally deny their responsibility towards the environment (Malpass et al. 2007, p. 249). Webster (1975) defines the socially conscious consumer as someone who takes into account the public consequences of his or her private consumption or who attempts to use his or her purchasing to bring about social change. Solomon et al. (2010, p. 17) use the term “political consumer” and defines him or her as “a consumer who expresses their political and ethical viewpoints by selecting and avoiding products from companies which are antithetical.” Responsible consumers are of special interest to companies as their perceptions influence consumer behavior (De Pelsmacker and Janssens 2007; Mohr and Webb 2005). Perception further affects the image of brands and firms, their financial performance, and the affinity of consumers to buy specific products (Luo and Bhattacharya 2006) and influences the consumers’ attitude towards companies (e.g. Lichtenstein et al. 2004). Consumers require from companies not just a product of quality at low price but also an ethical behavior demonstrating a contribution to the community. Contradictory behavior such as not fulfilling the ethical standards would be punished by the consumer (Marin and Ruiz 2007). Brown and Dacin (1997) found that corporate ethical behavior affects the consumers’ reaction to the company’s products, reflected in their purchase. Ethical issues impact on consumption patterns during the purchasing process (Rawwas 2005). Sen and Bhattacharya (2001) add that perceived corporate responsibility can also have direct effects on the attractiveness of the company’s products among corporate social responsibility (CSR) sensitized consumers. Therefore it is important to spread positive information about ethical activities as negative information about CSR has stronger effects on the consumer than positive information.

Products further need to promise the consumer individual value added such as quality, health, product safety and affordability. Corporate ethical behavior can only cause benefit if the quality does not suffer (Carrigan and Attala 2001) and if product offerings are improved.

However, consumer perception varies among cultures. Following the definition of Kroeber and Kluckhohn (1952), we define culture as a consensus of the behavioral

patterns of many individuals. This consensus is based on larger social units such as countries, comprehensive language communities or cross-national units such as the European culture. Large differences among the value systems of several European countries which are resistant to change because they are strongly rooted in history (De Mooij and Hofstede 2002) make believe that there are significant differences among the consumers' perceptions between Germany and Spain.

Theory and hypotheses

According to Webster (1975) the socially conscious consumer is aware of the public consequences of his private consumption and believes that his purchasing power influences the social change. Mohr, Webb and Harris (2001) add that the more consumers view their purchasing power as influential over company behavior, the more likely they are to practice responsible consumption. We support Jackson (2005) who describes consumer behavior as the biggest impact on the environment and believe that perceived individual responsibility is linked with the consumer's environmental knowledge. Knowledge is recognized as a characteristic that influences all phases in the consumer's decision process (Alba and Hutchinson 1987).

The Spanish ethical market is still in the early phase of development compared to Northern European countries (Papaoikonomou et al. 2011). Besides, the system of NGOs which usually work as drivers for consumer awareness is not well-coordinated in Spain. Consequently, a majority of Spanish consumers does not incorporate the environmental criteria during their purchase decision (Cuesta and Valor 2004). On the contrary, Maignan (2001, p. 60) found that German consumers "are likely to incorporate society's well-being in their shopping decisions". Comparing German to French and U.S. consumers Maignan (2001) further states that German consumers appear more willing to actively support ethical behavior. These facts underline a higher existing responsibility among the German consumers proposing the following hypotheses:

Hypothesis 1a: German consumers perceive individual responsibility as most important regarding environmental ethical behavior.

Hypothesis 1b: Spanish consumers do not perceive individual responsibility as most important regarding environmental ethical behavior.

Hypothesis 2: German consumers allocate more importance to individual responsibility than Spanish consumers.

Several prior studies have analyzed linkages between age and environmental consciousness but mostly with non-significant relationships, indicating that younger people exhibit higher levels of knowledge (Diamantopoulos et al. 2003). In contrast, De Pelsmacker et al. (2005) identified middle-aged consumers between 31 and 44 years as most sensitive, analyzing the perception towards Fair Trade as an example of social responsibility. An explanation for this could be that consumers following the modern existing Lifestyle of health and sustainability (LOHAS) (Kotler 2011) belong to this aging group to a high extent. LOHAS are enlightened consumers who search for individual but also social and environmental benefits when doing their purchase (Carrero et al. 2010). Environmental behavior expressed through responsible purchases often cause additional expenses (Uusitalo and Oksanen 2004) which can only be carried by people with a higher income level, which are mainly represented by middle-aged. Defining the existing aging group between 35 and 49 years in our study as middle-aged, we propose the following hypothesis:

Hypothesis 3a: Consumers between 35 and 49 years exhibit a higher perceived individual responsibility towards the environment than other aging groups.

Previous studies investigating the linkage between gender and environmental issues have found significant relationships but indicate different results. Balderjahn (1988) for example found out that the relationship between environmentally conscious attitudes and the use of sustainable products was more intensive among men than among women. In contrast, Banerjee and McKeage (1994) suggest that women tend to be more environmental conscious than men. Bageac et al. (2011) observes in previous studies a more ethical behavior among women as well. Diamantopoulos et al. (2003) suggest differentiating between environmental knowledge and environmental behavior, measuring the gender effect. They believe that females exhibit higher environmental behavior and a higher concern, whereas males tend to have a better environmental knowledge. Supporting Barreiro et al. (2002) we believe that people with higher environmental concern also tend to have a better level of ecological knowledge which leads to a higher perceived individual responsibility. In consequence,

we expect women to exhibit a higher perception than men, leading us to the following hypothesis:

Hypothesis 3b: Female consumers exhibit a higher perceived individual responsibility towards the environment than men.

Methodology

Sample Characteristics

An online-based questionnaire about environmental behavior was addressed to consumers of different aging groups in Germany and Spain. Our data was collected during a period of two months between November and December 2011. In total 989 usable questionnaires were returned; 503 from Spain and 486 from Germany (Table 1). Among the Spanish consumers, males composed 53.9 per cent ($n = 271$) and females composed 46.1 per cent ($n = 232$). Respondents' ages ranged from 18 to 72 years ($m = 39.8$). Among the German consumers males composed 46.5 per cent ($n = 226$) and females composed 53.5 per cent ($n = 260$). Respondents' ages ranged from 18 to 78 years ($m = 32.1$). Both samples represent approximately the gender balance of the Spanish and the German population according to the latest census of both countries accomplished by the German and the Spanish Institute of Statistics [Statistisches Bundesamt (DeStatis) 2011; Instituto Nacional de Estadística (INE) 2011].

Table 1 Demographic profile of respondents ($n = 989$)

Demographic profile	Germany	Spain
Gender		
Male	226 (46.5 %)	271 (53.9%)
Female	260 (53.5%)	232 (46.1%)
Age		
18-25	123 (25.3%)	22 (4.4%)
26-34	209 (43.0%)	140 (27.8%)
35-49	89 (18.3%)	246 (48.9%)
50 or over	65 (13.4%)	95 (18.9%)

Measures

The questionnaire was divided into two sections. In the first section the respondent's perception of environmental ethical behavior was measured. The responses were evaluated on a seven-point Likert-type scale ranging from strongly disagree (1) to strongly agree (7). In the second section, items were added to measure demographic data such as age and gender. The survey was translated into Spanish and German. Moreover, the survey was pre-tested.

Several analysis techniques are used to offer insight in our data and to answer our research questions. In a first step a *t*-Test averages the perception-based variables consumers, government policies, companies, science and NGOs and ascertains the significance between them. *T*-values and significance between the factors are provided in the Appendix. A one-way ANOVA uncovers the significance of the factors among the countries. Results are supposed to give advice about the differences of perceived responsibility in one country and detect significant differences between both countries. By the use of two repeated measures ANOVA, we measure the influence of socio-demographic variables, using age and gender as independent variables and consumers, government policies, companies, science and NGOs as dependent variables. The age variable was classified into the four categories, 18-25 years, 26–34 years, 35-49 years, and 50 years or older (e.g. Swaidan 2011). Results of this analysis are supposed to discover differences in the perceived responsibility between the four aging groups as well as between male and female in both countries. The analyses are run with SPSS v20.

Results

Consistent with *Hypothesis 1a*, the highest value is scored on consumers' responsibility among the German consumer group, followed by government policies and companies, ranked as second and third (Table 2). Finally, science and NGOs are perceived as less responsible for environmental ethical behavior. Testing *Hypothesis 1b*, Spanish consumers perceive government policies to be most responsible for environmental ethical behavior followed by companies and science on the second and

third rank. Individual responsibility is ranked fourth only followed by NGOs. For Germans, most relations between the single analyzed factors are significant except the relation between government policies and companies, government policies and consumers, companies and NGOs, as well as companies and consumers (Table A1). In the Spanish sample all the relations between the factors are significant except the relation between consumer and NGOs (Table A2). Differences between the non-significant relationships cannot be interpreted.

Testing *Hypothesis 2*, ANOVA results show significant differences between the countries with a higher perceived consumers' responsibility among the Germans ($M = 6.23$ vs. $M = 5.67$; $p < 0.01$). German consumers were also significantly more supportive of the perceived companies' responsibility ($M = 6.13$ vs. $M = 5.93$; $p < 0.05$). Non-significant differences among consumers were found for government policies, science and NGOs ($p > 0.05$).

Table 2 Mean value comparison of German and Spanish consumer perception

	Germans ($n = 486$)		Spaniards ($n = 503$)		<i>t</i> Value	<i>p</i>
	M (rank)	SD	M (rank)	SD		
Government policies	6.19 (2)	1.214	6.08 (1)	1.343	-1.35	0.178
Science	5.70 (4)	1.413	5.80 (3)	1.194	1.22	0.222
Companies	6.13 (3)	1.301	5.93 (2)	1.350	-2.41	0.016*
NGOs	5.47 (5)	1.455	5.56 (5)	1.324	1.08	0.280
Consumers	6.23 (1)	1.163	5.67 (4)	1.454	-6.73	0.000**

**Significant at 1% level. *Significant at 5% level.

Comparing both consumer groups, an agreement on NGOs, being the less responsible can be stated. A disagreement appears, comparing the higher perceived factors. Consumers in Spain perceive government policies to be most responsible, whereas Germans rank individual behavior as first, which is only ranked fourth among the Spaniards. Government policies is ranked on the second spot among the Germans, whereas companies are seen as the second most important among the Spaniards. The results of the demographic factors are discussed in the following section.

The demographic factors age and gender exhibit differing results to confirm *Hypothesis 3a* and *Hypothesis 3b*. The ANOVA results show a significant effect for age among the German consumers for government policies, science, companies, NGOs and consumers (Table 3). Non-significant results were detected among the Spanish consumers for government policies, science, companies, NGOs and also for consumers. In consequence, there is insufficient evidence indicating that Spanish middle-aged exhibit a higher perception for individual responsibility than the other aging groups.

The second ANOVA results show a significant effect for gender among the German consumers for government policies, science, companies, NGOs and consumers. A non-significant effect for gender among the Spaniards was stated for government policies whereas significant results were stated for science, companies, NGOs and consumers.

Table 3 Difference test for socio-demographic variables

	Age		Gender	
	German <i>F</i> (<i>p</i>)	Spanish <i>F</i> (<i>p</i>)	German <i>F</i> (<i>p</i>)	Spanish <i>F</i> (<i>p</i>)
Government policies	7.07 (**)	2.50 (n.s.)	19.46 (**)	2.47 (n.s.)
Science	5.23 (**)	0.52 (n.s.)	22.46 (**)	7.83 (**)
Companies	6.32 (**)	2.01 (n.s.)	19.67 (**)	11.73 (**)
NGOs	7.94 (**)	0.78 (n.s.)	17.91 (**)	17.23 (**)
Consumers	10.12 (**)	0.02 (n.s.)	11.59 (**)	7.09 (**)

**Significant at 1% level. *Significant at 5% level.

As expected, the highest value for consumers is scored between the 35 and 49 year old respondents among the Germans (Table 4). The second highest value for individual responsibility was scored by the over 50 year old respondents. Younger people (26-34 years and 18-25 years) scored the lowest value. In the Spanish sample, age has no significant effect for consumers. Considering gender to be an influential factor, women achieve higher scores for consumers' responsibility than men.

Table 4 ANOVA results for age and gender in both countries

	Gov. policies		Science		Companies		NGOs		Consumers	
	GER	ESP	GER	ESP	GER	ESP	GER	ESP	GER	ESP
Age										
18-25	5.89**	6.09**	5.31**	5.73	5.78**	6.14	5.05**	5.91	5.95**	5.73
26-34	6.22**	6.26**	5.73**	5.76	6.13**	6.09	5.43**	5.62	6.11**	5.68
35-49	6.63**	6.09**	5.98**	5.87	6.54**	5.92	5.98**	5.53	6.75**	5.66
50 or over	6.05**	5.78**	5.97**	5.71	6.26**	5.67	5.69**	5.47	6.42**	5.65
Gender										
Male	5.93**	5.99	5.47**	5.66**	5.86**	5.74**	5.17**	5.34**	6.04**	5.51**
Female	6.41**	6.18	5.90**	5.96**	6.37**	6.15**	5.72**	5.82**	6.40**	5.85**

**Significant at 1% level. *Significant at 5% level.

Discussion

Hypothesis 1a stating that German consumers perceive individual responsibility towards the environment as most important has been fully supported (Table 4). In contrast, individual responsibility is not perceived to be the most important among the Spanish which supports our *Hypothesis 1b*. Emphasizing these results, we also state a higher perceived responsibility of the German consumer compared to the Spanish consumer, supporting *Hypothesis 2*. We explain this result as amongst others perception is influenced by product offer, product information and consumer knowledge (De Pelsmacker and Janssens 2007). Based on previous literature, we believe that these aspects are more developed in Northern European countries, expecting a higher environmental knowledge among the German respondents. Our suggestion about the positive linkage between environmental knowledge and the perceived individual responsibility found support in our results as German consumers attach a higher importance to individual responsibility than Spaniards.

In Spain, the segment of consumers seeing themselves to be the factor of change in terms of environmental issues is small. People with high perceived consumer effectiveness are characterized as high educated, often belonging to NGOs. Carrero et al. (2010) name three obstacles which prevent the development of environmental

ethical consumption in Spain, firstly the missing motivation, secondly the missing information, and finally additional expenses. They further consider missing information to be the most important obstacle. Consumers are not able to evaluate the ethical attributes of a product, if the company does not inform about the product's social and ethical consequences. There are no specific regulations in Spain about the use or misuse of accompanying information on the products which avoids that the consumer is able to complain about a company's behavior. Our study supports these facts as Spaniards perceive government policies as most responsible towards environmental issues, followed by companies.

Table 4 Summary of hypotheses

Cultural factor			
H1a	Germans towards individual responsibility	Supported	
H1b	Spanish towards individual responsibility	Supported	
H2	Germans compared to Spanish	Supported	
Socio-demographic factors		Germans	Spanish
H3a	Age towards individual responsibility	Supported	Not supported
H3b	Gender towards individual responsibility	Supported	Supported

Hypothesis 3a could be supported partially as middle-aged consumers between 35 and 49 years scored the highest value on perceived individual responsibility only among the German consumers. Among the Spanish consumers our findings support Diamantopoulos et al. (2003) who mostly stated non-significant relationships with a higher exhibited knowledge among younger people. These results are probably related to the given information on environmental issues in both countries. Middle-aged people who follow the LOHAS lifestyle are influenced through environmental information to a high extent. The better developed ethical market of Northern countries provides more sustainable information engaging especially middle-aged Germans to be more responsible. According to Carrero et al. (2010) corporate information is low as companies do not inform sufficiently about their ethical product offer. Communication usually affects aging groups in a different way. A low ethical

communication level in Spain could explain the non-significant influence of the demographic factor age.

Consistent with our *Hypothesis 3b*, females scored the highest value on individual responsibility in both countries. This result raises the question whether perceived individual responsibility is rather linked to environmental knowledge or whether it is related to environmental concern. In various previous studies women were identified to be more conscious towards environmental issues adapting their behavior in terms of sustainable purchases for instance. Men were often identified to exhibit a greater knowledge. Barreiro (2002) even believes in a positive relationship between environmental concern and environmental knowledge. This study clearly identified women to be more responsible than men but it does not resolve whether this is related to knowledge or to concern.

Conclusion and implications

This article sought to analyze the level of responsibility among the respondents and whether there exist cross-national differences between consumers in Germany and in Spain. Moreover, a socio-demographic profile of the responsible consumer was supposed to be created. Environmental knowledge was supposed to be an indicator for the level of individual responsibility.

Our results indicate that perceived individual responsibility varies between the analyzed nations, as we identified a higher responsibility among the German consumers. Spaniards perceived government policies, companies and science to be more responsible. In other words, Germans believe to a higher degree that their behavior has a significant impact on society and that their efforts make real effect. By creating a socio-demographic profile, we found women to be more responsible than men in both societies. Furthermore, Germans between 35 and 49 years were identified to be most responsible whereas no aging group could be identified to be more responsible among the Spaniards. Comparing our expectations with our results, environmental knowledge could be recognized as a good indicator for perceived individual responsibility. Consumers start to act responsible if they feel a certain

effectiveness of their behavior. High perceived consumer effectiveness requires knowledge about how one can contribute in a responsible way. Knowledge can be induced by a high degree of information.

Our results imply that especially in Spain, consumers of all kinds are in need of more information about the ethical consequences of their behavior. This could be realized through a better visual product presentation and a labeling of ethical products informing about the manufacturing process and the environmental consequences of the product use. This requires a successful interaction between companies, government policies and NGOs, as they all exhibit a certain impact on the implementation. Improved environmental knowledge among younger people in Germany could be achieved through special advertising efforts focusing on personal advantages such as the money saving aspect, taking into consideration their lower income level.

Further research should focus on whether perceived individual responsibility depends on environmental concern and consumer behavior, reflected through purchase and product use. Moreover, it may be worthwhile to investigate the pattern behind the displayed perception in Germany and Spain in more detail. It could be interesting to find out to what extent perceived responsibility is influenced by environmental information and further factors such as ethical market size, personal motives, education and income level. Research in this area may be promising for companies who need to raise consumers' attention by increasing the efficiency of their environmentally ethical activities.

Appendix

Table A1 Mean difference for German respondents

	Gov. policies	Science	Companies	NGOs	Consumer
Gov. policies		.49 (**)	.06 (n.s.)	.72 (**)	-.04 (n.s.)
Science			-.43 (**)	.23 (**)	-.53 (**)
Companies				.67 (n.s.)	-.10 (n.s.)
NGOs					-.76 (**)
Consumers					

**Significant at 1% level. *Significant at 5% level.

Table A2 Mean difference for Spanish respondents

	Gov. politics	Science	Companies	NGOs	Consumer
Gov. politics		.28 (**)	.15 (**)	.52 (**)	.41 (**)
Science			-.13 (*)	.24 (**)	.13 (*)
Companies				.37 (**)	.26 (**)
NGOs					-.11 (n.s.)
Consumers					

**Significant at 1% level. *Significant at 5% level.

References

- Alba, J. W., & Hutchinson, J. W. (1987). Dimensions of consumer expertise. *Journal of Consumer Research*, 13, 411-454.
- Albareda, L., Lozano, J. M., Tencati, A., Midttun, A., & Perrini, F. (2008). The changing role of governments in corporate social responsibility: Drivers and responses. *Business Ethics: A European Review*, 17(4), 347-363.
- Bageac, D., Furrer, O., & Reynaud, E. (2011). Management students' attitudes towards business ethics: A comparison between France and Romania. *Journal of Business Ethics*, 98(3), 391-406.
- Balderjahn, I. (1988). Personality variables and environmental attitudes as predictors of ecologically responsible consumption patterns. *Journal of Business Research*, 17(1), 51-56.
- Banerjee, B., & McKeage, K. (1994). How green is my value: exploring the relationship between environmentalism and materialism. *Advances in Consumer Research*, 21, 147-152.
- Barreiro, J. M., Lopez, M. A., Losada, F., & Ruzo, E. (2002). Análisis de las dimensiones cognoscitiva, y afectiva del comportamiento ecológico del consumidor. *Revista Galega de Economía*, 11(2), 1-21.
- Bremer, J. A. (2008) How global is the Global Compact? *Business Ethics: A European Review*, 17(3), 227-244.
- Brown, T. J., & Dacin, P. A. (1997). The company and the product: Corporate associations and consumer product responses. *Journal of Marketing*, 61(1), 68-84.
- Campbell, J. L. (2007). Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility. *Academy of Management Review*, 32(3), 946-967.
- Carrero, I., Valor, C., & Rosa, J. M. (2010). Fomentando el consumo responsable en España. Documento de orientación de políticas públicas, pp. 1-12 http://www.council-consultores.com/uploads/documentos_adjunto/documentos_adjunto263.pdf.

- Carrigan, M., & Attalla, A. (2001). The myth of the ethical consumer – Do ethics matter in purchase behaviour? *Journal of Consumer Marketing*, 18(7), 560-577.
- Crane, A., & Matten, D. (2004). *Business Ethics: A European perspective*. Oxford, UK: Oxford University Press.
- Cuesta, M., & Valor, C. (2004). Fostering corporate social responsibility through public initiative: from the EU to the Spanish case. *Journal of Business Ethics*, 55, 275–293.
- De Mooij, M. & Hofstede, G. (2002). Convergence and divergence in consumer behavior: Implications for international retailing. *Journal of Retailing*, 78, 61-69.
- De Pelsmacker, P., Driesen, L., & Rayp, G. (2005). Do consumers care about ethics? Willingness to pay for Fair-Trade coffee. *The Journal of Consumer Affairs*, 39(2), 363-385.
- De Pelsmacker, P., & Janssens, W. (2007). A model for Fair Trade buying behavior: The role of perceived quantity and quality of information and of product-specific attitudes. *Journal of Business Ethics*, 75(4), 361-380.
- Diamantopoulos, A., Schlegelmilch, B. B., Sinkovics, R. R., & Bohlen, G. M. (2003). Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *Journal of Business Research*, 56, 465-480.
- Doh, J. P., & Guay, T. R. (2006). Corporate social responsibility, public policy, and NGO activism in Europe and the United States: an institutional-stakeholder perspective. *Journal of Management Studies*, 43(1), 47-73.
- Doh, J. P., & Teegen, H. (2003). *Globalization and NGOs: Transforming business, governments, and society*. Westport, CT: Praeger.
- Hart, S. (1997). Beyond greening: Strategies for a sustainable world. *Harvard Business Review*, 75(1), 67-76.
- Heise, A. (2009). *Toxische Wissenschaft? Zur Verantwortung der Ökonomen für die gegenwärtige Krise*, Arbeitspapiere für Staatswissenschaft, No. 32 <http://hdl.handle.net/10419/41345>
- Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills, CA: Sage.

- Hyllegard, K., Eckmann, M., Descals, A. M., & Gomez, M. A. (2005). Spanish consumers' perceptions of US apparel speciality retailers' products and services. *Journal of Consumer Behaviour*, 4(5), 345-362.
- Instituto Nacional de Estadística (INE). (2011). *Spain's population data*. http://www.ine.es/inebmenu/mnu_cifraspob.htm
- Jackson, T. (2005). Motivating sustainable consumption: A review of evidence on consumer behaviour and behavioural change. *Report to the sustainable development research network*, 1-154.
- Keck, M., & Sikkink, K. (1998). *Activists beyond borders: Advocacy networks in international relations*. Ithaca, NY: Cornell University Press.
- Kinney, T., Taylor, J., & Ahmed, S. (1974). Ecologically concerned consumers: Who are they? *Journal of Marketing*, 38, 20-24.
- Kotler, P. (2011). Reinventing marketing to manage the environmental imperative. *Journal of Marketing*, 75 (4), 132-135.
- Kroeber, A. L., & Kluckhohn, C. (1952). *Culture: A critical review of concepts and definitions*. Cambridge, Mass: Harvard University.
- Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18(6), 503-520.
- Lichtenstein, D. R., Drumwright, M. E., & Braig, B. M. (2004). The effect of corporate social responsibility on customer donations to corporate-supported nonprofits. *Journal of Marketing*, 68, 16-32.
- Loxley, J. (1998). *Interdependence, Disequilibrium and Growth: Reflections on the political economy of North-South relations at the turn of the century*. London, UK: Macmillan Press.
- Luo, X., & Bhattacharya, C.B. (2006). Corporate social responsibility, customer satisfaction, and market value. *Journal of Marketing*, 70, 1-18.
- Malpass, A., Barnett, C., Clarke, N., & Cloke, P. (2007). Problematizing choice: Responsible consumers, skeptical citizens. In M. Bevir & F. Trentmann (Eds.),

Governance, Consumers and Citizens: Agency and Resistance in Contemporary Politics. London, UK: Palgrave Macmillan.

- Maignan, I. (2001). Consumers' perceptions of corporate social responsibilities: A cross-cultural comparison. *Journal of Business Ethics*, 30, 57-72.
- Marin, L., & Ruiz, S. (2007). "I need you too!" Corporate identity attractiveness for consumers and the role of social responsibility. *Journal of Business Ethics*, 71, 245-260.
- McDonald, S., Oates, C. J., Young, C. W., & Hwang, K. (2006). Toward sustainable consumption: Researching voluntary simplifiers. *Psychology & Marketing*, 23(6), 515-534.
- Mohr, L. A., Webb, D. J., & Harris, K. E. (2001). Do consumers expect companies to be socially responsible? The impact of corporate social responsibility on buying behavior. *Journal of Consumer Affairs*, 35(1), 45-72.
- Mohr, L. A., & Webb, D. J. (2005). The effects of corporate social responsibility and price on consumer responses. *Journal of Consumer Affairs*, 39(1), 121-147.
- Papaoikonomou, E., Ryan, G., & Ginieis, M. (2011). Towards a holistic approach of the attitude behavior gap in ethical consumer behaviours: Empirical evidence from Spain. *International Advances in Economic Research*, 17, 77-88.
- Polonsky, M. J., Brito, P. Q., Pinto, J., & Higgs-Kleyn, N. (2001). Consumer Ethics in the European Union: A comparison of Northern and Southern views. *Journal of Business Ethics*, 31(2), 117-130.
- Ralston, D. A., Egri, C. P., de la Garza Carranza, M. T., Ramburuth, P., et al. (2009). Ethical preferences for influencing superiors: A 41-Society study. *Journal of International Business Studies*, 40(6), 1022-1045.
- Rawwas, M. Y. A. (2005). Consumer ethics: A cross-cultural study of the ethical beliefs of Turkish and American consumers. *Journal of Business Ethics*, 57(2), 32-51.
- Rosa, E., & Dietz, T. (1998). Climate change and society: Speculation construction and scientific investigation. *International Sociology*, 13, 421-425.
- Roberts, J. A. (1996). Green consumers in the 1990's: Profile and implications for advertising. *Journal of Business Research*, 36, 217-231.

- Sen, S., & Bhattacharya, C. B. (2001). Does doing good always lead to doing better? Consumer reactions to corporate social responsibility. *Journal of Marketing Research*, 38(2), 225-243.
- Solomon, M. R., Bamossy, G., Askegaard, S., Hogg, M. K. (2010). *Consumer Behaviour* (4th ed.). Boston, MA: Allyn & Bacon.
- Statistisches Bundesamt (DeStatis). (2011). *Germany's population data*. <https://www-genesis.destatis.de/genesis/online/link/tabelleErgebnis/12411-0020>.
- Stern, P. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407-424.
- Stern, P., Young, O., Druckman, D. (1992). *Global environmental change: Understanding the human dimensions*. Washington DC: National Academy Press.
- Swaidan, Z. (2012). Culture and consumer ethics. *Journal of Business Ethics*, 108, 201-213.
- Tucker, L. (1980). Identifying the environmentally responsible consumer: The role of internal-external control of reinforcements. *Journal of Consumer Affairs*, 14, 326-340.
- Uusitalo, O., & Oksanen, R. (2004). Ethical consumerism: A view from Finland. *International Journal of Consumer Studies*, 28(3), 214-221.
- Webster, F. E. Jr. (1975). Determining the characteristics of the socially conscious consumer. *Journal of Consumer Research*, 3(2), 188-205.
- Wood, G. (1995). Ethics at the purchasing/sales interface: An international perspective. *International Marketing Review*, 12(4), 7-19.



TÍTULO DE LA TESIS:

Un estudio internacional sobre los motivos que inducen a un consumo sostenible

DOCTORANDO/A:

Johannes Stolz

INFORME RAZONADO DEL/DE LOS DIRECTORES/ES DE LA TESIS

(se hará mención a la evolución y desarrollo de la tesis, así como a trabajos y publicaciones derivados de la misma).

INFORME DE LOS DIRECTORES

El trabajo estudia la percepción y actitud de los consumidores sobre la sostenibilidad a través de tres estudios específicos. En el primero el doctorando obtiene un perfil demográfico de los consumidores con una actitud más concienciada. Ese perfil considera factores como el ámbito cultural y geográfico, la edad y el género y cómo estas características explican la percepción sobre si la sostenibilidad es responsabilidad del consumidor.

El segundo estudio investiga las motivaciones de los consumidores (altruista, egoístas o biosféricas); para posteriormente investigar la percepción que los consumidores tienen sobre la sensibilidad de los distribuidores al presentar una oferta sostenible. En este trabajo se investiga si existen diferencias derivados de entornos económicos y culturales diferentes.

El tercer trabajo investiga la percepción que el consumidor tiene del comportamiento sostenible de las empresas y los factores que explican el compromiso del consumidor porque está dispuesto a pagar más por el producto sostenible

El trabajo es oportuno por la importancia de la sostenibilidad y si esta sensibilidad en el consumidor puede ser gestionada. Las implicaciones de los resultados son interesantes para las empresas a la hora de conocer las características que presentan los consumidores y que pueden influir en sus motivaciones de compra, así como a nivel gubernamental a la hora de promover una mayor concienciación de los consumidores como forma de evitar el dumping medioambiental que pueden desarrollar otros países.

Las tres partes del trabajo están sólidamente engarzadas; la literatura justifica los objetivos de cada uno de los capítulos, los resultados son coherentes con las hipótesis y estos resultados están suficientemente discutidos a la hora de extraer conclusiones.

El trabajo ha sido presentado parcialmente en eventos científicos y algunas de sus partes han sido publicadas o están en trámite de evaluación en revistas científicas.

Producción científica.

CHAPTER 3 is based on:

Stolz, J., H. Molina, and J. Ramírez (2012). Consumers' perception of their responsibility towards the environment: A comparison between German and Spanish consumers, *Working paper*.

Under review by **Journal of Business Ethics** (JCR / Impact Factor: 0,963)

CHAPTER 4 is based on:

Stolz, J., H. Molina, J. Ramírez, and N. Mohr (2012). Consumers' perception of the environmental performance in retail stores: An analysis of the German and the Spanish consumer, *Working Paper*.

Accepted by **International Journal of Consumer Studies** (JCR / Impact Factor: 0,661)

CHAPTER 5 is based on:

Stolz, J., J. Ramírez, and H. Molina (2013). Consumers' perception of corporate sustainability: Empirical evidence from Germany and Spain, *Working paper*.

Accepted by World Marketing Congress (17-20 July in Melbourne, Australia) organized by **Journal of the Academy of Marketing Science** (JCR / Impact Factor: 2,671)

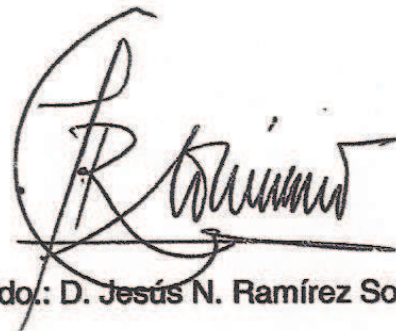
Another theoretical paper is accepted by **Jornadas Hispanolusas de Investigación científica** (Málaga 2013).

Córdoba, 19 de diciembre de 2012

Firma del/de los director/es



Fdo.: D. Horacio Molina Sánchez



Fdo.: D. Jesús N. Ramírez Sobrino