Saleem ur Rahman

Toward a greener globe

In the pursuit of culturally embedded pathways to sustainable consumption

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Julkaisun nimike
Kohti vihreämpää maailmaa: kulttuurierojen ymmärtäminen kestävän kulutuksen edistämisen väylänä

Tiivistelmä

Ostaessaan ympäristöystävällisiä tuotteita kuluttajat voivat kokea mielihyvää voidessaan vaikuttaa ympäristön pilaantumisen torjumiseen. Kestävä kulutus on kuitenkin luonteeltaan monimutkaista päätöksentekoa ja kuluttajien kulutusmallien "vihertyminen" ei ole suoraviivaista. Kuluttajilla voi olla useita motiiveja ostaessaan ympäristöystävällisiä tuotteita. Tämä huomioiden esillä oleva väitöskirja tarkastelee individualistiseen vs. kollektiiviseen kulttuuriin pohjautuvia kestävän kulutuksen motiiveja.

Väitöskirjan ensimmäinen essee kohdistuu horisontaalisen ja vertikaalisen individualistisen kulttuurin arvoihin vs. kollektiivisen kulttuurin arvoihin (lyhennettynä H/V IND-COL) tuotteiden vihreän brändäämisen ja kuluttajien vihreiden kulutusaikomusten suhteen (suusanallinen viestintä, ostaminen, lisähinnan maksaminen). Kuluttajien vihreiden tuotteiden ostoaikomukset eroavat kulttuuritaustan myötä. Toinen essee tarkastelee sitä, kuinka H/V IND-COL -kulttuurin arvot heijastuvat kuluttajien luomuruoan valintamotiiveihin ja tuotekokemuksiin tarkasteltuna elämää ohjaavien peruspäämäärien näkökulmasta. Kuluttajien kulttuuriperusteiset arvot ja elämän peruspäämäärät sekä yhdentyvät että eriytyvät luomuruokatuotteiden valinnoissa. Kolmannessa esseessä tutkitaan itsesäätelyn kohdentumisen (regulatory focus) roolia henkilökohtaisena motiivirakenteena, kun määritetään kuluttajien kestävää tuote-kulutuskokemusta H/V IND-COL -kulttuureissa. Kolmas essee osoittaa, että H/V IND-COL -arvot vaikuttavat kuluttajien välttämis- ja lähestymislähtöiseen ympäristöä koskevaan käyttäytymiseen. Neljäs essee tarkastelee, onko ympäristövastuun kokemisella henkilökohtaisena motiivirakenteena merkitystä siihen, kuinka H/V IND-COL -kulttuurin arvot vaikuttavat kuluttajien ympäristöasenteisiin ja ostoaikomuksiin. Koettu ympäristövastuu ei vain vaikuta kuluttajien ympäristöä koskevaan käyttäytymiseen, vaan toimii myös säätelevässä roolissa H/V IND-COL- ja ympäristöllisen käyttäytymisen välisessä suhteessa.

Tämän väitöskirjan tulokset tuovat oman osuuteensa monikulttuurista kestävää kuluttamista koskevaan tutkimukseen, erityisesti koskien tutkimusta individualistisen vs. kollektiivisen kulttuuriin nojaavista kestävän kulutuksen motiiveista. Tulokset osoittavat merkittäviä eroja kestävissä kulutusvalinnoissa niissä maissa, joiden kulttuuria voidaan laajasti kuvata "individualistiseksi" ja "kollektiiviseksi". Tämän väitöskirjan tulokset voivat auttaa yrityksiä räätälöimään kulttuurin huomioivaa vihreää markkinointia ja mainontaa koskevia strategioita.

Asiasanat
Kulttuuri, kuluttajat, horisontaalinen, vertikaalinen, individualismi, kollektivismi, regulatorinen fokus, ympäristövastuu, kestävä kulutus

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Abstract

Consumers may enjoy the pleasure of preventing environmental degradation by purchasing environmentally friendly products. However, sustainable consumption is complex type of decision-making, and "greening" the consumption patterns of consumers is not straightforward. There are many motives that consumers may have for buying environmentally friendly products. In view of that, this dissertation examines individual vs collective culturally congruent motives for sustainable consumption.

The first essay of this dissertation examines the role of horizontal and vertical individualism vs collectivism cultural values (H/V IND-COL) in the relationship between green branding and consumers' green behavioral intentions (e.g. word-of-mouth intentions, the willingness to pay a premium, and purchase intentions). Consumers' intentions to purchase green products differ with respect to their cultural backgrounds. The second essay explores how H/V IND-COL cultural values are reflected in consumers' organic food choice motivations and product perceptions when viewed through the lens of life goals. Consumers' cultural values and life goals both converge and diverge regarding their organic food-product choices. The third essay examines the role of regulatory focus as a personal motivational construct in determining consumers' sustainable product-consumption experience in H/V IND-COL cultures. This third essay demonstrates that H/V IND-COL values influence consumers' prevention-focused and promotion-focused environmental behavior. The fourth essay examines if environmental responsibility as a personal motivational construct mediates the effects of H/V IND-COL cultural values on consumers' environmental attitudes and purchase intentions. Environmental responsibility not only influences consumers' environmental behavior but also plays a mediating role between H/V IND-COL cultural values and environmental behavior.

The findings of this dissertation contribute to existing research on cross-cultural sustainable consumption, specifically to the research examining individual vs collective cultural motives of sustainable consumption. The results indicate significant differences between consumers' sustainable consumption choices in countries whose cultures could be broadly described as "individualistic" and "collectivistic." The results of this dissertation have the potential to help companies tailor culturally congruent green marketing and advertising strategies.

Keywords

Culture, Consumers, Horizontal, Vertical, Individualism, Collectivism, Regulatory focus, Environmental responsibility, Sustainable consumption

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“Exalted are You; we have no knowledge except what You have taught us. Indeed, it is You who is the Knowing, the Wise” [Quran 2:32]

Someone wise once said, every story has an end, but in life, every ending is just a new beginning. Similarly, my PhD journey has successfully ended. This journey was full of challenges as well new experiences. For a boy who had never been to another country before, moving from Pakistan, a country with a profound blend of landscapes, to Finland, a country of a thousand beautiful lakes, was one of the biggest challenges. Although this journey has been full of high and lows, this ride was an enjoyable and amazing experience in the pursuit of enlightenment and wisdom. I hope that the end of this journey may welcome new beginnings of intellectual growth and countless blessings. I would like to take this opportunity to acknowledge the support, advice, and mentorship of the numerous people who made it possible for this doctoral research to materialize into something tangible.

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On a cloudy and rainy night in Vaasa, October 25, 2019.

Saleem ur Rahman

Contents

Figures

Tables

Abbreviations

ACV	Attributes-Consequences-Values
AVE	Average variance extracted
CFI	Comparative fit index
CR	Composite reliability
EA	Environmental attitude
ER	Environmental responsibility
EU	European Union
GOF	Goodness of fit
GPE	Green product experience
H/V IND-COL	Horizontal vs Vertical Individualism and Collectivism
HC	Horizontal collectivism
HI	Horizontal individualism
HVM	Horizontal value matrices
IM	Implication matrix
IND-COL	Individualism and collectivism
IoT	Internet of things
IPCC	International Panel on Climate Change
IR	Indulgence versus restraint
ISO	International Standard Organization
LSO	Long versus short-term orientation
LOV	List of values
MGCFA	Multiple-group confirmatory factor analysis
MEC	Means-End-Chain
MF	Masculinity versus femininity
NEP	New Environmental Paradigm

NFI	Normed fit index
PD	Power distance
PI	Purchase intention
PLS	Partial least square
Q^2	Cross-validated redundancy measures
R^2	Variance
RFT	Regulatory focus theory
RMSEA	Root Mean Square Error of Approximation
RVS	Rokeach Value Survey
SDG	Sustainable development goals
SEM	Structural equation modelling
SPSS	Statistical Program for Social Scientists
SVS	Schwartz values survey
TPB	Theory of planned behavior
TRA	Theory of reasoned action
UA	Uncertainty avoidance
UNEP	United Nations Environment Protection
UNFCCC	United Nations Framework Convention on Climate Change
VC	Vertical collectivism
VI	Vertical individualism
WCED	World Commission on Environment and Development
X^2	Chi-Square

Publications

Essay I — Konuk, F.A, Rahman, S.U, and, Salo, J., (2015), Antecedents of green behavioral intentions: A Cross-country study of Turkey, Finland and, Pakistan. International Journal of Consumer Studies, 39(6), 586-596. Available at: https://doi.org/10.1111/ijcs.12209 [1]

Essay II — Rahman, S.U., Luomala, H., (2019), Duties or self-reliance: Motivational patterns in sustainable food consumption in vertically collectivistic and horizontally individualistic cultures. Under review in Journal of International Food and Agribusiness Marketing, 2019, 1st round.

Essay III — Rahman, S.U, (2019), Differences in horizontally individualist and vertically collectivist consumers' environmental behavior: a regulatory focus perspective, International Journal of Business and Emerging Markets, 11(1), 73-88. Available at: https://doi.org/10.1504/IJBEM.2019.097479 [2]

Essay IV — Rahman, S.U, (2019), Uncovering the role of horizontal individualism and vertical collectivism influence on consumers' responsible environmental behavior. Under review in Australasian Marketing Journal, 2019, 1st round.

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1 INTRODUCTION

Problems related to climate change have dramatically increased around the globe in the past few decades. Global warming has been rising due to issues such as plastic waste, deforestation, carbon-dioxide emissions, and pollution caused by fossil fuels, urbanization, and overconsumption (ISO, 2017). Moreover, wasteful lifestyles in developed countries and the inability to adapt due to overpopulation in developing countries both perpetuate the harm to the climate. As a consequence, many countries continuously suffer from the devastating effects of climate change in the shape of resource depletion, floods, rising sea levels, premature deaths, food shortages, poverty, and other social issues. In fact, climate change puts all life on Earth at potentially catastrophic risk. Anti-environmental actions are thus a matter of global concern.

The United Nations (UN) has urged world governments to adopt a "green new deal" to protect the planet from such dangers (UNEP, 2009). In the spirit of this admonition, many worthy pro-environmental steps have been taken to tackle environmental issues, such as the Brundtland Commission's report Our Common Future (WCED, 1987). This report proposed the concept of "sustainable development," referring to meeting the needs of the present without compromising the safety or health of future generations. The signing of the Paris agreement under the UN Framework Convention on Climate Change (UNFCCC) is another effort toward achieving sustainable development goals (SDGs) (UNFCCC, 2015). A more recent step toward protecting the environment is the suggestion by the International Panel on Climate Change (IPCC) to limit global warming to between 1.5 °C and 2 °C by 2100 to slow down irreversible, long-lasting damage to environment (IPCC, 2018). Likewise, the UN has introduced 17 SDGs as a global blueprint for dignity, peace, and prosperity for the people and the planet, including addressing the threats of climate change (UN, 2018).

Human activities since the industrial era have aggravated environmental change, such as the use of resources for production and consumption purposes, in which achieving optimal economic growth was the primary motive (Niinimäki, 2011). How societies use their natural resources shapes the well-being of their people, their economy, and their environment. Environmental issues are the most heightened and serious of all the problems humanity is currently experiencing; therefore, individuals around the globe may hold different philosophies concerning how to utilize natural resources (Stone, Coley, & Leak, 2014). Among the UN's 17 SDGs, goal 12 outlines a shift from the conventional paradigms of consumption and production of resources toward a more sustainable, responsible paradigm. Under SDG 12, both companies and consumers are subject to increasing their responsibility for protecting the environment on behalf of both the current and future generations (UN, 2018).

People are the immediate victims of environmental degradation and therefore experience increased environmental issues in their daily lives (Williams, 1997). For that reason, many people are becoming more ecologically conscious and amenable to purchase sustainable, eco-friendly, or "green" products and services (Laroche, Bergeron, & Barbaro, 2001; Albino, Balice, & Dangelico, 2009). In addition, consumers trust and favor firms that give information and make commitments regarding environmental sustainability (Chen, 2010; Pawaskar, Raut, & Gardas, 2018). Many consumers look for brand differentiation that is meaningful based on sustainability practices (Kurowska, 2003). Consumer preferences shape how green providers design, offer, and apply green products and services in the marketplace, including the increased awareness of how business practices can affect the natural environment. Accordingly, many consumers are embracing a greener economy (Gouvea, Kassicieh, & Montoya, 2013).

The sustainable development demanded by these consumers encourages businesses, in some cases, to holistically transform, adopt sustainable strategies (Grubor & Milovanov, 2017), and strengthen their business commitments to sustainability (Khojastehpour & Johns, 2014). Fortunately, the influence of these changes on the purchase intentions of consumers has provoked market mechanisms to respond accordingly (Kim, Lee, & Yang, 2015). The potential strategic impact of environmental issues on business activity has increasingly attracted the attention of companies (Kolk & Pinske, 2004) that have been integrating environmental issues into business strategies and activities (Nidumolu, Prahalad, & Rangaswami, 2009). Accordingly, many companies are now designing, manufacturing, and distributing environmentally friendly products (Davari & Strutton, 2014).

These types of products emerged as an important component in reducing the environmental impact of overconsumption (Liobikiene & Bernatoniene, 2017), leading to a greener economy. The *Green Paper on Integrated Product Policy* (2001) by the Commission of the European Communities states that, because of greener products, the world can achieve the UN's sustainable development targets. In this regard, green marketing to address consumers' environmental concerns is practically the private-sector reply to this call (Ottman & Herbert, 1993) as marketing to customers while considering the importance of protecting the natural environment (Polonsky, 1994). From extraction to disposal, several economic, social, and environmental benefits are associated with environmentally friendly, green, or sustainable products (Peattie, 2010) because of their minimal impact on the environment throughout their entire life cycle (Ljungberg, 2007). If effectively developed, these products could be key to creating successful environmental strategies and competitive advantages for companies (Pujari, Wright, & Peattie, 2003; Lin & Chang, 2012).

Although consumers can prevent environmental degradation by purchasing green products and many are willing to take responsibility for the environmental impact of their purchases (Joshi & Rahman, 2015; Quazi, Amran, & Nejati, 2016),

"greening" their consumption patterns is not straightforward (Fowler & Close, 2012). Considering adopting a sustainable lifestyle is a complex decision-making process (Olson, 2013). The market share of green products is declining, for example; their estimated market share worldwide is only between 1 and 6 percent (Nielsen, 2013). Moreover, many consumers are skeptical of buying these products (Leonidou & Skarmeas, 2017). Individuals may state that they care about the environment and planet, but that intention does not always manifest a willingness to buy green products (Barbarossa & Pastore, 2015), leaving a "green gap."

The green gap, in other words, is the distance between the stated importance of protecting environment and the actual behavior to protect it. The positive environmental attitude of consumers, as mentioned, does not necessarily translate into actual green purchasing behavior (Johnstone & Tan, 2015). The green gap exists for many reasons, such as high prices, lack of availability, the poor quality of some green products, brand loyalty to non-green products, and other non-monetary costs that prevent consumers from buying these products (Cherrier, 2012; Gleim & Lawson, 2014). To bridge the green gap, much research has analyzed consumers' demographic variables (D'Souza, Taghian, & Khosla, 2007), including marketing factors (Rahbar & Wahid, 2011; Davari & Strutton, 2014) and cultural factors (McCarty & Shrum, 2001; Soyez, 2012). Earlier research has also sought to understand the role of green marketing strategies and tools in consumers' green consumption. This stream of research has witnessed a growing number of studies identifying the need for strategies and practices that reflect the concerns of consumers about environmental degradation (Polonsky, 2011). Though much research has focused on the green gap (Juwaheer & Pudaruth, 2012; Rosli, Abudllah, & Haque, 2018), green consumption is still evolving, and new marketing challenges lie ahead to address consumers' needs (Zabkar & Hosta, 2013).

So far, the tremendous support to protect the environment through sustainable consumption has not seen comparable results and, is not at a sustainable level (Reisch, Eberle, & Lorek, 2013). Given this concern and the lack of consumer acceptance of green products, many barriers to green consumption likely still exist. Sustainable consumption is a complex concept and, without changes in the consumption patterns and behaviors of consumers, efforts to avoid further damage to the environment, such as social initiatives, economic policies, environmental technologies, and production systems, will be not as effective as they could be (Peattie, 2010). Therefore, the avoidance of green product by consumers is still undoubtedly a serious issue that needs to be fully addressed (Carrington, Neville, & Whitwell, 2010).

Previous research has further demonstrated that cultural perspectives shape people's responses to climate change (Ceglia, Lima, & Leocadio, 2015). As a result, similarities and differences that exist between different cultures are likely to affect consumers' green responses (Oliver & Lee, 2010). Research has shown that, to promote and achieve sustainable consumption, it is necessary to include

environmental criteria and concerns into individual consumption decisions by considering social and cultural aspects of consumption (Schaefer & Crane, 2006). Researchers have further suggested fuller research exploration to understand sustainability and sustainable consumption from different cultural perspectives (Dermody, Hanmer-Lloyd, Koenig-Lewis, & Zhao, 2015). In addition, sound psychometric measures have been suggested by earlier research to clarify the role of cultural biases in the debate on climate change (Adger, Barnett, Brown, Marshall, & O'Brien, 2013; Price, Walker, & Boschetti, 2014).

Although considerable evidence has been derived from earlier research examining environmental behavior from a sociocultural perspective, it has mostly been confined to pro-self and pro-others orientations in individualistic versus collectivistic cultures (De Groot & Steg, 2008; Grebitus & Dumortier, 2016; Kim & Choi, 2005; McCarty & Shrum, 2001; Milfont, Duckitt, & Cameron, 2006). Researchers have claimed that it is possible that individualistic-oriented consumers may choose sustainable products for pro-others' benefits and collectivistic-oriented consumers will prefer these products for pro-self's motives (Barbarossa, Beckmann, Pelsmacker, Moons, and Gwozdz, 2015; Chen et al., 2018; Gentina & Singh, 2015; Muralidharan, Rejon-Guardia, and Xue 2015; Ojea & Loureiro, 2007; Soyez, 2012; Tam & Chan, 2017; Xue, 2015). At the same time, consumers may prefer these products for both motives, regardless of their individualistic or collectivistic cultural orientation (Baumann, Engman, & Huddar-Kennedy, 2017; Gonzalez, Felix, Carrete, Centeno, & Castano, 2015; Mancha & Yoder, 2015; Schrank & Running, 2016; van Zomeren, 2014).

Put simply, consumer sustainable behavior is multidimensional, and when it comes to consuming sustainable products, it seems that consumers' individualistic motives will predominate in collectivistic cultures, while collectivistic motives appear to have more weight in individualistic cultures (Birch, Memery, & Kanakaratne, 2018; Dam & Trijp, 2016; First & Brozina, 2009; Griskevicius, Tybur, & den Bergh, 2010; Oliver & Lee, 2010). For instance, consumers' environmental attitudes vary in different countries in relation to differences in their power distance, individualism, and indulgent cultural values (Larson & Kinsey, 2019). One may conclude from the findings of previous research that there are either previously unexplored motives for green consumption or green consumers are heterogeneous, with different sets of needs and motives (Park & Lee, 2014) across different cultures (Milfont & Markowiz, 2016). The inconsistent findings of the sustainable consumption research and disregard of important cultural dimensions suggest the need to study this diverse topic in more detail, with the application of theoretically sound frameworks that measure consumers' culture-specific motives.

Previous research further suggests that cultural values and motivations are related to behaviors that benefit the environment (Steg, 2016; Woosnam, McElroy, & Winkle, 2009). The theoretical justification for this connection is that values serve as criteria for evaluating events and people's actions (Schwartz & Bilsky, 1987).

There is a conceptual sharing between values and motivations. Usually, values influence individuals' behavior via different determinants, such as beliefs, attitudes, and norms (Steg & De Groot, 2012). Due to the importance of consumers' cultural values in the context of environmental behavior research, researchers argue that we will underestimate the importance of values in environmental behavior if we ignore the role of mediating constructs in this relationship (Thogersen, Zhou, & Huang, 2016). Some of the examples of those consumption motivations/factors as mediators between values and the environmental behavior relationship are environmental concerns (Ramayah, Lee, & Mohamad, 2010), perceived consumer effectiveness (McCarty & Shurm, 2001), personal and social norms (Mork, Bech-Larsen, Grunert, & Tsalis, 2017), and consumers' ethical beliefs (Lu, Chang, & Chang, 2015).

While analyzing the findings and suggestions of earlier research, the following shortcomings become apparent: First, when adopting sustainable lifestyles, consumers engage in an increasingly complex process of decision-making; therefore, their attitudes fail to transform into positive sustainable consumption (Joshi & Rahman, 2015; Moraes, Carrigan, & Szmigin, 2012). Second, without explicitly considering the new models, research on sustainable consumption suffers from relying on outdated cultural frameworks, failing to consider viable approaches to realize sustainability (Soyez, 2012; Yaprak, 2008). Third, all the dimensions of a culture do not significantly influence consumers' environmental behavior. When consumers consider sustainable choices, certain of their values can conflict and potentially lack salience (Howell, 2013; Liobikiene, Mandravickaite, & Bernatoniene, 2016; van Zomeren, 2014). Accordingly, the inconsistent results obtained from using those cultural frameworks for understanding sustainable consumption serve as a barrier to environmentally conscious behavior (Morren & Grinstein, 2016).

In light of the above research findings, this dissertation argues that assuming consumers' sustainable consumption as pro-self in IND cultures, whereas in COL cultures, only pro-others or group-oriented sustainable consumption behavior prevails, may represent only partial perspectives about consumers' sustainable consumption across cultures. For instance, sustainable behavior is a form of social behavior that involves buying socially responsible brands, making charity donations, and showing environmentally friendly behavior like buying ethical and sustainable products (Duclos & Barasch, 2014; Gandhi & Kaushik, 2016; Maniatis, 2015; Torelli, Monga, & Kaikati, 2012; Winterich & Zhang, 2014). Studies in the marketing and advertising domains have mainly focused on such behavior at the cultural level via the lens of individualism versus collectivism and the power distance concept (Hofstede, 1980; Shavitt, Lalwani, Zhang, & Torelli, 2006). Similarly, H/V IND-COL cultural typology influence the power concepts of individuals across cultures (Torelli & Shavitt, 2010), and this has been a longstanding cultural model in consumer research (Shavitt et al., 2006). The H/V IND-COL cultural typology comprises individualistic versus collectivistic cultural motives, as well as those related to equality and inequality (Shavitt & Barnes,

2019). In the light of above, H/V IND-COL cultural framework would be more helpful than IND versus COL cultural dimensions would for predicting the cross-cultural consumers' sustainable consumption motives (Cho, Thyroff, Rapert, Park, & Lee, 2013; Triandis & Gelfand, 1998).

This dissertation applies specifically horizontal individualism (HI) and vertical collectivism (VC) cultural values of H/V IND-COL cultural typology to examine the following: a) consumers' perceptions of green products b) choosing organic food, c) how consumers' self-regulatory goals (RF) and d) environmental responsibility (ER) influence their perceptions of environmental friendly products. The following arguments justify choosing HI and VC cultures. First, the majority of studies addressed the influence of HI and VC cultural values on various consumption phenomena and interpersonal relationships (Shavitt & Cho, 2016). For example to predict pro-social behaviors, such as giving to charity (cf. sustainable consumption) studies have used PD, which relates to the differences in verticality/hierarchy among cultures (Winterich & Zhang, 2014; Shavitt & Barnes, 2019). For instance, extant literature finds that the features of sustainable products fulfil consumers' individual and collective needs, including their environmental and social status, improved self-image, reputation, security, and pleasure motives (Birch et al., 2018; Griskevicius et al., 2010; Lee & Haley, 2018; Maniatis, 2015; Oliver & Lee, 2010; Thogersen, 2011). Second, the characteristics of HI and VC cultural values coalesce with Scandinavian and East Asian cultures, respectively. For example, due to behaviors, such as seeking a solution-oriented approach to conflicts, low power distance (PD), and high individualism orientation, Scandinavian countries are often considered to represent HI cultures (Croucher et al., 2016; Khatri, Tsang, & Begley, 2005). Conversely, due to high PD, collectivism, masculinity, and uncertainty avoidance, East Asian countries can be regarded as VC cultures (Hofstede, 1980; Sivadas, Bruvold, & Nelson, 2008; Islam, 2004; Nordfjærn & Zavareh, 2016; Shavitt et al., 2006).

1.1 Purpose and objectives of the dissertation

Consumers choose products based on the characteristics, attributes, and associations of those products that they personally think are important to them (Allen et al., 2008; Verplanken & Holland, 2002). Consumers also evaluate products based on their cultural values (Mooij & Hofstede, 2011). Therefore, one of the purposes of this dissertation is looking for similarities and differences in the sustainable consumption patterns originating from HI and VC cultural values of H/V IND-COL cultural typology (Cho et al., 2013; Gupta, Wencke, & Gentry, 2019). This study assumes that sustainable motives in different cultures are relatively mixed; therefore, the HI and VC cultural characteristics of individualism and collectivism influence consumers' buying decisions in countries structured around IND versus COL dimensions. Thus, the purpose of this dissertation is renewing and refining the understanding of the role of cultural variation as a direct

or indirect influencer of consumers' sustainable consumption. The terms, "renewing and refining," refer to using a different cultural framework to contribute to the existing cross-cultural research in order to understand more fully differences in sustainable consumption. It is important to note that, in using the H/V IND-COL typology, this study aims to identify the cultural meanings consumers attach to buying organic food and green/environmentally-friendly products.

To achieve the purpose of this dissertation, five specific objectives are set, which are as follows:

1. To create a conceptual framework based on extensive literature reviews for tackling the interplay between cultural differences, motivational mediators, and product experiences in the sustainable consumption context.

   The most fundamental purpose of the research studies is reviewing earlier research to conclude and generate insights from it for a better understanding about the research problem. Therefore, the first objective of this study is to create a conceptual framework based on earlier research findings and gaps on the topic.

2. To explore the role of HI and VC cultural values in the relationship between green branding and consumers' green behavioral intentions e.g., word-of-mouth intentions, willingness to pay premium, and purchase intentions (E1, direct effect of H/V IND-COL).

   Since marketers have started to imbue cultural values in the brands to serve different consumer segments around the globe, the perceptions of consumers to choose such brands vary in terms of differences in their cultural values. Simply, the second objective of this dissertation is examining consumers' perceptions of green products. The basis of this objective is the need to examine what brand factors influence consumers' behavioral intentions to buy green white products, as well as how these perceptions vary in relation to consumers' cultural difference. Accordingly, essay 1 of this study addresses this objective. Essay 1 is employed as a pre-acquisition study for the next three essays of this dissertation.

3. To analyze how HI and VC cultural values are reflected in consumers' organic food choice motivations and product perceptions when viewed via the lens of life goals (E2, direct effect of H/V IND-COL).

   This objective explores the existence of similarities and differences by examining HI and VC cultures in terms of choosing organic food. We utilize consumers' life goals/lists of values (LOVs) for determining how H/V IND-COL consumers connect their organic food motives with the attributes and consequences of using them (Kahle et al., 1986). The objective is uncovering the cultural meanings H/V IND-COL consumers attach to choosing organic food. Essay 2 addresses this objective.

4. To study the role of a regulatory focus as a personal motivational construct in determining consumers' sustainable product consumption experience in HI and VC cultures (E3, indirect effect of H/V IND-COL).

   A juxtaposition of consumers' characteristics and their consumption goals reveals different meanings in the sustainable consumption context. There is a consensus among researchers that consumers regulate their behavior according to their cultural difference. For instance, IND-cultured consumers are promotion oriented, whereas COL cultured consumers are prevention focused. This objective demands examination of whether it is true that HI and VC cultural differences influence consumers' regulatory focus orientations, and thus, their environmental behavior and purchase intentions. Essay 3 addresses this objective; and

5. To examine whether environmental responsibility as a personal motivational construct mediates the effect of HI and VC cultural values on consumers' environmental attitude and purchase intentions (E4, indirect effect of H/V IND-COL).

   Environmental responsibility (ER) refers to the personal commitment of a consumer to protect the environment. Since Hofstede's hierarchy and power dimensions highlight the pro-social consumption decisions of consumers and that H/V IND-COL consumer are low and high on these dimensions. By using H/V IND-COL cultural values, this objective deals with determining whether HI and VC cultural values have any role in influencing consumers' responsibility toward the environment, and consequently, their environmental attitude and purchase intentions. Essay 4 addresses this objective.

1.2 Positioning and intended contributions of the dissertation

Researchers have agreed that culture is one of the most significant determinants of consumer behavior (Cleveland & Chang, 2009), and this allows companies to tailor their communication and branding strategies (Cleveland & Laroche, 2007; Zhou, Teng, & Poon, 2008). Because consumers prefer products that are congruent with their cultural values (Torelli, Ozsomer, & Carvalho, 2012), companies market their products in international markets in a manner that is congruent with the cultural values of consumers in different places (Allen, Gupta, & Monnier, 2008; Torelli, Chiu, & Keh, 2010). This means that, for companies to sell their products in international markets, understanding the interaction of consumers' cultural orientations with firms' marketing strategies is crucial for their product success (Song, Moon, Chen, & Houston, 2017; Steenkamp & Jong, 2010). Although consumers evaluate products in relation to their cultural values, culture is hard to measure (Sun, D'Alessandro, Johnson, & Winzar, 2014). Cultural comparison is a critical method by which the interaction between culture and

psychological processes can be examined (Kashima, 2014) and have important implications for advertising effectiveness and consumers' motivation and judgmental processes (Koo & Shavitt, 2010). Moreover, researchers in the cross-cultural domain suggest the identification and addition of new theoretically and statistically sound dimensions to the existing ones for successful marketing and advertising strategies (Beugelsdijk, Kostova, & Roth, 2016).

The concept of sustainability and culture has been the focus of growing research in the marketing literature. Studies have attempted to examine cultural values as antecedents of consumers' choice of environmentally friendly products, thereby extensively contributing to the cross-cultural sustainable consumption research field (McCarty & Shrum, 2001; Segev, 2015; Soyez, 2012; Wang, 2014). However, researchers argue that understanding sustainable consumption is complex. Research examining consumers' environmental behavior is suffering from a lack of consideration of new cultural models to provide credible recommendations, such as how consumers in a specific country choose environmentally friendly products for culturally congruent or incongruent motives (Gifford & Nilsson, 2014; Grebitus & Dumortier, 2015; Kim & Choi, 2005). Researchers suggest that sustainable consumption can be achieved by considering both cultural and social aspects of consumption (Pinto, Nique, Herter, & Borges, 2016), including shared sustainability experiences in family and community groups (Schaefer & Crane, 2005). This research argument gives theoretical support to the research argument of this dissertation; therefore, it can be concluded that consumers may have different responses to sustainable products with respect to their individual versus collective motives across different cultures (Van Lange et al., 2013), and more specifically, in IND versus COL cultures (McCarty & Shrum, 2001; Segev, 2015; Wang, 2014).

Taking the above as a whole, this dissertation intends to contribute to cross-cultural research on sustainable consumption in three ways. First, it seeks to apply the newest theorizing developed for a refined understanding of cultural differences in several sustainable consumption contexts. Second, it seeks to extend current knowledge about the role of mediating factors in leveraging the cultural influences by introducing the concepts of regulatory focus and environmental responsibility to the equation. Third, it seeks to produce an array of innovative research questions for future studies to address.

1.3 Structure and logic of the dissertation

This dissertation comprises two parts. The first part is introductory, while the second is the collection of the four essays (see Figure 1).

The first section of the introductory part sets the dissertation scene. It presents the purpose and objectives of the dissertation. Further, it explains the positioning and

contribution of this dissertation to existing sustainable research through the lens of H/V IND-COL cultural values' differences across cultures.

The second section presents the key phenomenon, theoretical perspectives, current body of knowledge, and conceptual framework and research propositions of the dissertation. This section introduces the key concepts and current body of knowledge on sustainable consumption, conceptualizes and explains culture and cultural differences, and describes the direct and indirect role of culture in sustainable consumption.

The third and fourth sections present the methodology, pre-understanding acquisition, descriptive analysis, and explanation of the results of the four essays. They explain the adopted method of data collection, applied statistical tests analysis, and obtained results of the dissertation essays.

The final section presents the validity of the research, implications, and future research suggestions. For example, this section explains the validity and reliability of the data, the dissertation's implications for marketers and policymakers, and the future research recommendations for researchers.

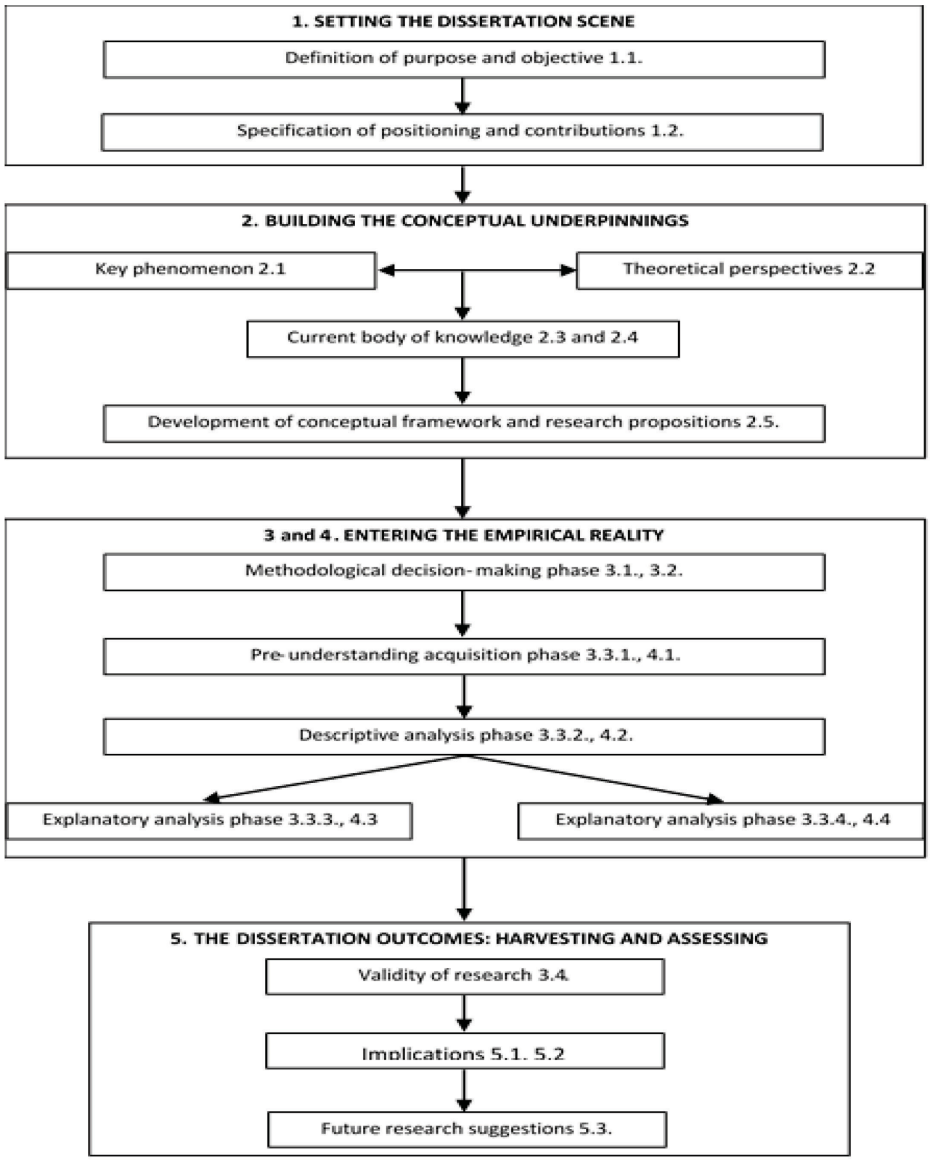

Figure 1. Dissertation structure

2 CONCEPTUAL UNDERPINNINGS

2.1 Sustainable consumption

Sustainability runs against the consumption behaviors and actions to which consumers are accustomed (Soron, 2010). The current consumption by modern society is considered unsustainable and resistant to sustainable change (Vermeir & Verbeke, 2006). Sustainable consumption first entered officially into public dialogue in 1992 before the Rio Earth Summit (Seyfang, 2005). According to the Brundtland report, sustainable consumption should meet current needs and wants at a level and in a form that can be continued indefinitely, without compromising the lives of future generations and the planet's ability to meet those needs and wants (World Commission on Environment and Development, 1987).

Researchers have come up with different definitions of sustainable consumption. For example, sustainable consumption is the opposite of the "using and destroying" type of consumption. It is encompassed under the umbrella of sustainable development (Middlemiss, 2018). Many of the definitions of sustainable consumption have focused on different aspects of the already learned consumption habits of consumers and their effect on environment. Some researchers call it "pro-social consumption" or "ethical consumption" (Black & Cherrier, 2010; Jackson, 2005). Sustainable consumption is an approach that concentrates on the production and consumption of environmentally sustainable products more efficiently and responsibly, or quite simply, it can involve less consumption (Jackson, 2007).

Sustainable consumption embraces all aspects of consumption and its social and environmental effects (Mont & Plepys, 2008). It includes the consumption of products that are free from chemicals and therefore good for health, society, and the environment (First & Brozina, 2009). Duclos and Barasch (2014) state that sustainable consumption is similar to social behavior that involves buying socially responsible brands and making charity donations (Winterich & Zhang, 2014), as well as engaging in environmentally friendly behavior, such as buying ethical and sustainable products (Gandhi, & Kaushik, 2016; Maniatis, 2015). Some researchers term sustainable consumption as buying and consuming green, environmental, ethical, organic, and sustainable products and services that do the least damage to the environment, as well as supporting social justice (Young, Hwang, McDonald, & Oates, 2010).

Consuming sustainable/green products significantly determines consumers' wellbeing and the wellbeing of other living creatures around us. Accordingly, consumers consume different types of green products to fulfil their various consumption goals. Examples of these products include organically produced food that grows without toxic substances like chemical fertilizer (Davari & Strutton, 2014; Zagata, 2014; Zanoli & Naspetti, 2002), as well as green electronic, energy

efficient, and white products (Hartmann & Apaolaza-Ibanez, 2012). Moreover, ethical/fair-trade products that are produced without the exploitation of labor, animals, and the environment (Davies & Gutsche, 2016; Jagal, Keeling, Reppel, & Gruber, 2012) and renewable energy products, which produce clean and more efficient energy, are examples of sustainable/green products (McDonald, Oates, Thyne, Alevizou, & McMorland, 2009).

Sustainable consumption involves and is influenced by individual, contextual, and cultural factors (Nair & Little, 2016). Researchers have concluded that green products possess features that fulfill consumers' egoistic, altruistic, ethical, environmental and social needs. These features reflect consumers' opinions in a way that appeals to and fulfil not only their individual and collective characteristics but also their environmental and social status, improved self-image, reputation, security, and pleasure motives (Birch et al., 2018; Griskevicius et al., 2010; Lee & Haley, 2018; Maniatis, 2015; Oliver & Lee, 2010; Thogersen, 2011). Table 1 shows the relationships of the sustainable consumption benefits that fulfill consumers' pro-self/IND versus pro-others/COL cultural compatible motives (Cho et al., 2013; Gupta et al., 2019; Parker & Grinter, 2014; Waylen et al., 2012).

Table 1. Sustainable Consumption Motivations (Developed for this Dissertation)

Sustainable consumption motives	**Relationship to individualism/collectivism and/or egoism/altruism**	**Examples**
1) Hedonism	Egoistic	Luxury green products
2) Health	Egoistic	Organic food
3) Safety	Altruistic	Nontoxic soaps/detergents
4) Environmental friendliness	Altruistic	Recyclable products
5) Animal welfare	Altruistic	Products that support animal rights
6) Reputation	Egoistic	Conspicuous green products
7) Buying local	Social	Supporting local agriculture

2.2 Green product experience

Different artifacts, services, and products are created to serve people's different daily life purposes. These include cooking meals, cleaning the house, feeding and eating, enjoying and entertaining, and contacting people. The interaction of people with the products that serve those purposes in life is called the *product experience* (Hekkert & Schifferstein, 2008). Researchers have recognized the key role of a consumer in driving the environmental impact via his/her daily activities. For instance, sustainable consumption refers to consumption activities that reduce the ecological and social problems associated with conventional production and consumption. Accordingly, purchasing and consuming a green product minimizes the potentially hazardous social, economic, and environmental effects that can emerge throughout its lifecycle (Jones, Clarke-Hill, Comfort, & Hillier, 2008; Peattie & Collins, 2009).

Green products purchase commitments are often based on consumers' attitude toward the environment (Fraj & Martinez, 2007). These products aim to reduce waste; avoid damaging the environment, society, humans, and animals; and reduce the consumption of natural resources (Majid & Ruswell, 2015; Peattite & Charter, 2003; Rashid, 2009). Levitt (1980) states that consumers attach value to a product in relation to its ability to help solve his/her problems and meet his/her needs. Similar to other products, the characteristics of green products determine the buying motives of consumers. For instance, green products may stimulate consumers' sense of affect and cognition, ultimately leading to liking or disliking the products, as well as experiencing and enjoying the associated meanings of using the products in daily life (Strahan, Spencer, & Zanna, 2002).

Green buying is a subset of sustainable consumption (Lu et al., 2015). Extant research has examined and reported on the environmental behaviors of consumers, especially by focusing on the potential factors influencing their green choices (Testa, Iraldo, Vaccari, & Ferrari, 2013), such as how they evaluate green products, and how green products affect their behavior (Arli, Tan, Tjiptono, & Yang, 2018). Accordingly, such consumers try to help improve the environment by their green purchases (Dagher & Itani, 2012). Green consumers are changing marketplaces and market mechanisms in many ways. The increasing consumer interest in green has created key challenges for companies to develop green products (Znidarsic, Maric, & Ferjan, 2012).

A product experience is usually the outcome of a human–product interaction in a given context, involving cognitive, emotional, behavioral, and physiological responses. In this dissertation, a green product experience (GPE) can be broken down into the components of perceptions, attitudes, intention to purchase and transmit information by word of mouth (WOM), and willingness to pay.

2.3 Conceptualizing culture and explaining cultural differences

Several large-scale models dominate cross-cultural research. The most frequently applied cultural models or frameworks are high-context and low-context cultural framework of Hall (1959), six dimensions of Kluckhohn and Strodtbeck (1961), Inglehart's (1977) theory of materialism, the Rokeach Value Survey (RVS, 1968), the classic study of work values by Hofstede (1980), the Schwartz value survey (SVS, 1992), Schwartz's cultural theory (2006), and Trompenaars's dimensions (1993). Moreover, the GLOBE study by House et al. (2004), horizontal and vertical individualism versus collectivism by Triandis (1995), and social axioms variability across cultures by Leung et al. (2002) are also prominent.

At present, many cultural frameworks jointly shape modern research on cultural value differences in international business and management (Stahl & Tung, 2015). Cultural dimensions can be examined between societies, and consumers can be targeted for tailored marketing and advertising interventions (Oreg & Katz-Gerro, 2006). Specifically, researchers in consumer culture tradition assume that consumers favorably evaluate products with the characteristics, attributes, and associations of those products that are personally important to them (Allen et al., 2008; Verplanken & Holland, 2002). Consumers evaluate products based on their cultural values (Mooij & Hofstede, 2011). Accordingly, marketers often focus on matching the brand meanings with the levels of different cultural value priorities using different cultural models and frameworks.

Researchers in cross-cultural psychology agree that culture consists of expectations, beliefs, perceptions, attitudes, and behaviors that converge into the unification of cultural values (Litvin & Kar, 2004). However, culture is a multidimensional construct; therefore, there is no consensus among scholars on which dimensions comprehensively describe the culture (Richter et al., 2016). Although many frameworks are useful in different disciplines for determining the cultural difference between and among the people living in different geographical areas, three main frameworks have been helpful for conceptualizing the theoretical foundation of this dissertation. These are Hofstede's (1980) cultural dimensions, the SVS and Schwartz's (1992, 2006) cultural theory, and the horizontal and vertical individualism versus collectivism by Triandis (1995). These cultural frameworks are explained in turn below.

2.3.1 Hofstede's theory

According to Hofstede (1980), culture is a collective programming of the mind that differentiates people from one another. Hofstede is a Dutch management researcher who published the results of his study on more than 100,000 employees of the multinational company IBM in 40 countries. In his study, he attempts to establish the value dimensions to describe different cultures. Hofstede's (1980)

introduced four cultural dimensions: such as a) individualism versus collectivism (IND-COL), b) power distance (PD), c) masculinity versus femininity (MF), and d) long-term versus short-term orientation (LOS). Later, Hofstede has added two more dimensions to the framework: which are, e) uncertainty avoidance versus uncertainty tolerance (UA), and f) indulgence versus restraint (IR) (Hofstede, Hofstede, & Minkov 2010) (See Table 2). Stemming from organizational research, this framework offers clarity for measuring culture; therefore, it has gradually become dominant in cross-cultural psychological studies (Venaik & Brewer, 2013). Hofstede's cultural framework is robust and extensive in terms of national culture samples, making it exclusive compared with other cultural frameworks (Soares, Farhangmehr, & Shoham, 2007). Accordingly, at the country level, most studies have examined the direct effect of Hofstede's cultural values on individuals' intentions or behaviors (Kirkman, Lowe, & Gibson, 2006). Researchers assume that the scores on Hofstede's dimensions in given countries indicate the characteristics of people from the respective country (Venaik & Bower, 2013). However, Hofstede's model has also been criticized by many researchers in terms of treating people in each culture as homogeneous, which seems to overlook the diversity of the populations in the given cultures. Furthermore, Hofstede's cultural dimensions are criticized as being subject to trial and error, so it is suggested that care should be taken in interpreting the research results obtained from using his cultural dimensions (Moon & Chan, 2005).

In consumer psychology, research at the cultural level involves the broad concept of IND versus COL classification (Hofstede, 1980; Shavitt, Johnson, & Zhang, 2011; Shavitt et al., 2006). This is one of the most commonly applied cultural classifications in cross-cultural consumer research (De Mooij & Hofstede, 2011). IND societies emphasize an "I" consciousness, including factors like emotional independence, autonomy, taking individual initiative, pleasure seeking, the right to privacy, the need for specific friendships, financial security, and universalism. In contrast, COL societies emphasize a "we" consciousness, including factors like emotional dependence, collective identity, sharing, group solidarity, group decisions, obligations, and duties (Chen & West, 2008; Hofstede, 1980).

At a broad level, IND relates to self-enhancement and openness, while COL relates to self-transcendence and the conservation of the personal values in Schwartz's (1992) model. Regarding IND versus COL cultural differences, researchers state that it is not necessarily true that a culture can be congruent with IND-COL (Kim, Triandis, Kagitchibasi, Choi, & Yoon, 1994). The IND versus COL distinction of Hofstede's cultural model can be too simplistic to account for variability in individualist and collectivist cultures (Singelis, Triandis, Bhawuk, & Gelfand, 1995). Accordingly, researchers doubt that the IND-COL continuum explains slight variations and suggest that it cannot capture enough difference to make any credible recommendations (Oyserman, Coon, & Kemmelmeier, 2002).

Table 2. Hofstede's Dimensions and their Sub-dimensions (Hofstede, 1980)

Dimensions	Sub-dimensions
Individualism versus collectivism (IND-COL)	Conformity, family integration, independence/self-reliance, self-perception, self-versus group interest Social responsibility, working alone versus in groups
Indulgence versus restraint (IR)	Free gratification to enjoy life and have fun versus suppressing and regulating gratification
Long- versus short-term orientation (LOS)	Risk aversion Ambiguity intolerance
Masculinity versus femininity (MF)	Acceptance of authority, accepted inequality, power seeking
Power distance (PD)	Achievement, assertiveness, confrontation avoidance, gender equality
Uncertainty avoidance (UA)	Tradition, planning

2.3.2 Schwartz's values and cultural theory

Some agreed-upon value constructs are Schwartz's (1992, 2006) personal values and cultural theory. Schwartz (1992) identifies four main value groupings, which are openness to change, self-enhancement, self-transcendence, and conservation values, and 10 distinct values across different cultures (see Table 3 and Figure 2). Later, Schwartz (2006) developed his theory of culture based on individual differences according to value priorities and the effects of the values on the belief and behavior systems of individuals across cultures (Figure 3). Schwartz's (1992) 10 individual values describe what people perceive to be the guiding principles of their lives, whereas his cultural value dimensions highlight what societies are facing.

Schwartz (1992) explains the 10 personal values as follows: *Simulation* refers to experiencing feelings of daringness and excitement. *Self-direction* refers to how an individual thinks independently, with curiosity, freely, and creatively. A person's *hedonism* value relates to his/her feeling of happiness and enjoyment. *Achievement* means the importance of socially approved accomplishment, whereas *power* refers to how a person uses power, money, and resources. *Universalism* values refer to thinking about the welfare of people and justice in society and the planet, whereas *benevolence* is a feeling of care by one person towards others. *Conformity* is conforming to others' expectations, while *tradition*

is being moderate and respectful. Finally, *security* refers to protecting the self, family, group, and country.

Table 3. Schwartz Values Survey (SVS) Classification (Schwartz, 1992)

Constructs	Importance for people/description
Stimulation	To have a stimulating experience, involving daringness and excitement
Self-direction	To think and act independently, such as by being curious, creative, free, and independent
Hedonism	Having sensual happiness, such as by having fun and enjoying life
Achievement	Following socially approved accomplishment, such as by exhibiting ambition and competence
Power	Having money, being in charge of people, or attaining resources, such as wealth, social status or power, and authority
Universalism	Promoting the welfare of people and the natural environment, such as in terms of equality, justice in society, and environmental protection
Benevolence	Taking care of others, such as by helping or being loyal, honest, and compassionate
Conformity	Having the impulse to fulfil the expectations of others, such as by being obedient and self-disciplined
Tradition	Maintain traditions, such as by being respectful, sincere, and moderate
Security	Protecting the self, family, and nation, such as by maintaining the security of the family, society, and country

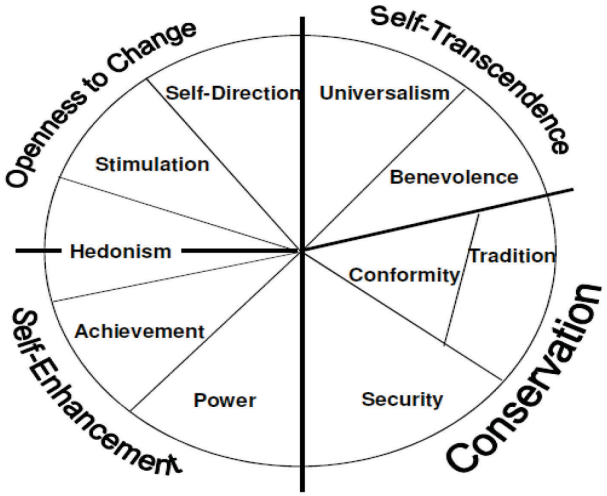

Figure 2. Schwartz's (1992) theory of basic values.

Schwartz's (2006) cultural theory claims that all societies must face the three cultural value dimensions of embeddedness versus autonomy, hierarchy versus egalitarianism, and mastery versus harmony (Tekeş, Uzumcuoglu, Hoe, & Ozkan, 2018). These value dimensions form seven cultural value orientations, namely, embeddedness, intellectual autonomy, affective autonomy, egalitarianism, hierarchy, harmony, and mastery. *Embeddedness* is the extent to which people are embedded in their groups, such as encouraging tradition via collectivity and social relationships. *Intellectual autonomy* refers to creativity, while *affective autonomy* means encouraging positive experiences, such as pleasure. *Egalitarianism* versus *hierarchy* means how people behave in a way to preserve their social structure: Egalitarian cultures favor justice or equality in society, while hierarchical cultures prefer unequal distribution of power, such as authority, wealth and social power. The *mastery* versus *harmony* dimension refers to how people see themselves fitting into the natural and social world: Mastery encourages ambition for success, working towards changing the environment, whereas harmony refers to fitting in and appreciating differences, encouraging peace and protecting the environment (Schwartz, 2006).

For many years, the SVS (Schwartz, 1992) and cultural dimensions (Schwartz, 2006) were useful frameworks in different fields of research. For instance, the SVS has been applied in psychology (Hirvelä & Helkama, 2011), innovation (Martin & Upham, 2016), online buying (Smith, Deitz, Royne, & Hansen, 2013), and organic consumption (Puska, 2019). In contrast, cultural dimensions are visible in research on predicting entrepreneurial self-efficacy (Mueller & Dato-on, 2011), leadership roles in organizations (Hauge et al., 2011), rationalization of corruption (Guerber, Rajagoplan, & Anand, 2016), prevalence of mental disorders (Heim, Wegmann, & Maercker, 2017), and in international business activities (Lopez-Duarte & Vidal-Suarez, 2013).

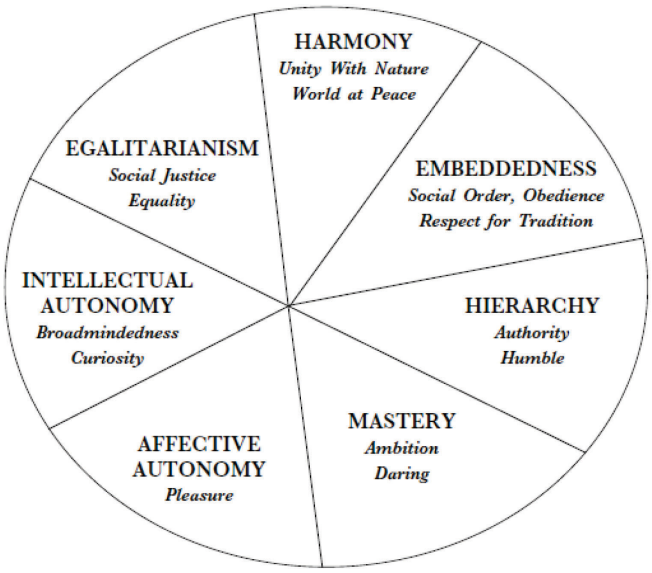

Figure 3. Schwartz's (2006) cultural dimensions.

2.3.3 Horizontal individualism and vertical collectivism

Singelis et al. (1995) and Triandis (1995) introduced the horizontal/vertical cultural values difference within Hofstede's (2001) IND versus COL cultural values (see Figure 4). The authors have divided individualism and collectivism as horizontal emphasizing equality and vertical emphasizing hierarchy (Triandis, 2004). On the horizontal grid, there are horizontal individualistic (HI) people, who desire to be unique and do their own thing, and horizontal collectivistic (HC) people, who cooperate with their in-groups. On the vertical grid, there are vertical collectivistic (VC) people, who submit to the hierarchy defined by their in-groups and are willing to sacrifice for these groups, and vertical individualistic (VI) people, who strive to be their best and do their own thing. Citizens of countries like Australia, Denmark, Norway, and Sweden tend to have HI cultural characteristics, while those with HC characteristics are dwellers in Israeli kibbutzim. On the vertical axis, people living in countries such as France, Great Britain, and the United States are characterized as VI, whereas Indians, Japanese, and Koreans have VC characteristics (Triandis, 2004).

The horizontal/vertical dimensions are similar to the combination of the scores of Hofstede's dimensions (e.g., individualism/collectivism and power distance; Hofstede, 1980; Shavitt et al., 2006; Triandis, 2004). This typology also fits Fiske's (1992) framework of sociality, with communal sharing corresponding to collectivism, market-sharing matching with individualism, while equality and authority resemble horizontal and vertical relationships (Triandis & Gelfand, 1998; Vodosek, 2009). Shavitt et al. (2006) linked the horizontal/vertical difference to Schwartz's (1992) personal values. For example, the power, achievement, and conformity values resemble the vertical dimension, whereas the horizontal dimension comprises self-direction, benevolence, and universalism values (Schwartz & Bilsky, 1987, 1990).

Most studies have examined the role of H/V IND-COL dimensions in different fields of research; however, among those studies, their role in consumer psychology is most prominent (Shavitt & Barnes, 2019). For instance, VI individuals who score highly on competitiveness and achievement are highly sensitive to unethical and deceptive behavior (Lu, Chang, & Yu, 2013), and they prefer materialistic success (Garbarino, Lee, & Soutar, 2010). Moreover, because VI individuals crave competitiveness and achievement, they are brand conscious (Zhang & Nelson, 2016) and seek social status (Lee & Haley, 2018). VC individuals who are high on group dependence favor normative behavior (Yi-Cheon Yim et al., 2014), and other-directed symbolism influences their luxury value perceptions (Shukla, Singh, & Banerjee, 2015). VC consumers are also prone to nomophobia (Arpaci, 2017) and show favorable attitudes toward corporate social responsibility–related advertisements (Lee & Haley, 2018). HI individuals, who score high on uniqueness, are interested in nutritional practices for society (Parker & Grinter, 2014), prefer materialistic happiness (Garbarino et al., 2010), and happily enjoy their lives (Torres & Pérez-Nebra, 2007). Individuals with HC

cultural values are high on interdependence; they show interest in cause-related marketing (Wang, 2014), give preference to products based on religious reasons (Jamal & Sharifuddin, 2015), and show leisure attitudes (Wong, Newton, & Newton, 2014).

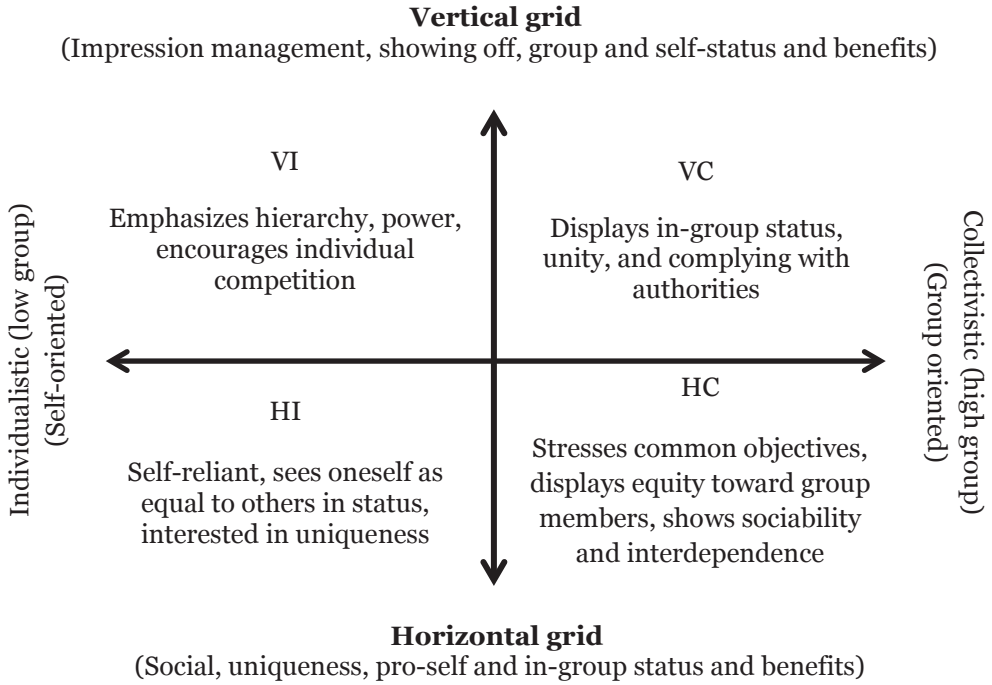

Figure 4. Horizontal/vertical IND-COL cultural difference (Triandis, 1995).

2.4 Effects of cultural differences on sustainable consumption

Consumer behavior represents a dynamic interaction between affect and cognition, consumers' behavior with each other and the environment in which they live, and the exchanging of different aspects of their lives (Bennett, 1995). Similarly, the consumption process of individuals includes all the things around them thus influencing their thoughts, feelings and actions (First & Brozina, 2009). Peter and Olson (2005) contend that the consumption process is a combination of the consumer's affect and cognition, which are intrinsic factors, and social and cultural factors in the external environment, which are extrinsic factors. Among the extrinsic factors, culture is one of the underlying determinants of consumers' product evaluation and experiences (Henry, 1976).

According to Milfont and Schultz (2016), the fundamental connection between a human and natural environment cannot be overstated. Solving environmental problems and saving the planet all require efforts at the individual and collective, broad levels, which are fixed. Elgin (1994) argues that environmental sustainability success can be achieved if we reach and solve the much deeper

problems in our culture and consciousness. Since concerns for sustainability are global issues, it is important to understand consumer behavior difference relative to sustainability practices across different cultures (Oliver & Rosen, 2010).

Researchers maintain that culturally inspired sustainable consumption differences play an important role in environmental impacts (Cho et al., 2013; Price et al., 2014). For example, our response to climate change could be better understood by cultural orientations at both the attitudinal and behavioral levels (Heyd & Brooks, 2009; Xiang, Zhang, Geng, Zhou, & Wu, 2019). Culture plays a significant role in influencing the consumption of green products, as well as having an effect on consumers' reactions to the interpretation of green marketing (Oyedele & Dejong, 2013; Ritter, Borchardt, Vaccaro, Pereira, & Almeida, 2014). Autio et al. (2009) argue that green consumerism is a socially constructed concept and varies across different cultures. Cordano et al. (2010) further support these arguments, finding that consumers' beliefs toward the environment influence their pro-environmental behavior differently from one culture to another. Cultural difference is a highly important factor influencing consumers' environmental behavior, and researchers suggest that it merits further exploration (do Paco, Alves, Shiel, & Filho, 2013).

Understanding cross-cultural phenomena can help realize the determinants of consumers' pro-environmental behavior across cultures (Adger et al., 2013). In this regard, most studies have used different cultural value theories; however, most of the cross-cultural research is dominated by using two prominent cultural frameworks, namely, Schwartz's (1992) personal values theory and Hofstede's (1980) cultural orientations. The most prominent personal values from Schwartz's (1992) 10 values are self-enhancement, which reflects people's concern with their personal interests (individual interests, such as power and achievement, i.e., egoistic values.), and self-transcendent values, which show the concern about others (collective interests, such as universalism and benevolence, i.e., altruistic and biosphere values). In addition, IND versus COL cultural values' role is visible and considered valuable for policymaking to promote environmental behavior across cultures (Ando, Ohnuma, Blobaum, Matthies, & Sugiura, 2010; Nair & Little, 2016; Park, Russell, & Lee, 2007; Soyez, 2012). Accordingly, the next section reviews the literature on the direct and indirect influences of Schwartz and Hofstede's cultural values on consumers' sustainable perceptions, attitudes, and behavioral intentions across different contexts.

2.4.1 Direct effects on consumers' perceptions and attitudes

Studies have found evidence of a relationship between Schwartz's (1992) personal values, specifically, the self-transcendence values (altruistic and biosphere) that involve considering collective consequences for others and the society, as well as the self-enchantment values (egoistic) that involve considering individual costs and self-benefits with several pro-environmental behaviors (De-Groot & Steg,

2008; Perlaviciute & Steg, 2015). In addition, Schultz and Zelezny (1999) reported that values like universalism positively relate while tradition and power negatively relate to the New Environmental Paradigm (NEP) and econcentrism (Dunlap et al., 1992; Thompson & Barton, 1994). However, the authors have not found a positive relationship of benevolence, but instead, determined that tradition, power, and security positively relate to anthropocentrism. In their study, Schultz et al. (2005) found that self-transcendence positively relates to biosphere environmental concerns but negatively to self-oriented environmental concerns. This means that, when consumers prioritize the environment over themselves, their self-transcendence values tend to rise and positively influence their environmental concerns. Groening, Sarkis, and Zhu (2018) argue that individuals with self-transcendence and openness values are likely to engage in green behavior, whereas individuals who value self-enhancement and conservation are unlikely to be green. However, in the study by Urien and Kilbourne (2011), consumers high on generativity (an individual's belief that his/her current behavior has consequences that extend into future generations) and self-enhancement values are concerned about the environment. These findings are similar to those of the study by Teng, Wu, and Huang (2014), who found a positive relationship between self-transcendence values and travelers' environmental concerns.

Stern (2000) argues that egoistic, altruistic, and biosphere values are relevant to explaining individuals' pro-environmental behavior. Similar effects have been shown in other studies. For example, the study by Hedlund (2011) reveals that the universalism values of self-transcendence positively relate to environmental concern, whereas the power and achievement aspects of self-enhancement values are insignificant. Likewise, Bonera, Corvi, Codini, and Ma (2017) show a direct positive relationship of universalism values with consumers' eco-behavior. In the context of green electricity determining consumers' attitudes, Hansla, Gamble, Juliusson, and Garling (2008) find that self-enhancement values negatively and self-transcendence values positively associate with consumers' attitudes. In the study by Mork et al. (2017), the universalism of self-transcendence positively relates to consumers' attitudes toward increased use of organic produce in public institutions.

In their study, Onur, Sahin, and Tekkaya (2012) find that eco-centric, altruistic, and biosphere values are the best predictors of consumers' environmental concerns compared with egoistic values. Similarly, in the hospitability research, Rahman and Reynolds (2016) find that travelers' biosphere values positively influence their willingness to sacrifice for green hotels. It seems that biosphere values are important determinants in the context of travelling; in another study, biosphere values positively influenced travelers' attitudes toward green hotels (Yadav, Balaji, & Jebarajakirthy, 2019). The findings of Jacobs, Petersen, Horisch, and Battenfeld (2018) further support the assumption that consumers' biosphere and altruistic values positively affect their sustainable clothing attitude, while egoistic and hedonic values do so negatively. Further, altruistic values positively

influence consumers' personal norms, environmental attitudes, and subjective norms but negatively influence the perceived barriers (Ngyun, Lobo, & Greenland, 2017). Overall, the above research findings indicate a clear and important role as a direct influencer of Schwartz's (1992) self-transcendence and self-enhancement values in the context of environmental behavior.

Previous research has examined the direct influence of IND versus COL cultural values on consumers' green perceptions and attitudes. For example, Leonidou, Leonidou, and Kvasova (2010) find that COL values not only influence consumers' inward environmental attitude but also have a significant effect on their outward environmental attitude. In a similar research attempt, Samarasinghe (2012) finds that collectivism positively influences consumers' environmental attitudes. Segev (2016) reports that there is a positive relationship between collectivism and consumers' pro-environmental attitudes. Collectivism also positively influences consumers' attitudes toward the sustainable practices of companies, such as the corporate sustainability practices (Hur & Kim, 2017; Ng & Burke, 2010). In a similar research attempt, Xiang et al. (2019) found a similar effect and demonstrated that the relationship between a collectivist orientation and climate-friendly behavior is stronger than that of an individual orientation. Recently, in their study, Le, Tran, Nguyen, and Cheng (2019) found that IND negatively but COL positively influences consumers' attitudes toward environmental purchase consequences. These findings perhaps reveal that, most of the time, consumers' COL cultural values influence their green preferences for the greater good as opposed to immediate benefits.

Other studies have examined COL cultural values in terms of different green consumption motivations. For example, Lee, Kim, Kim, and Choi (2014) find that COL values positively influence consumers' environmental concerns, as well as their perceived effectiveness. Similarly, Kirmani and Khan (2016) find that COL relates positively not only to consumers' environmental concerns but also their attitudes toward green products. In another study, the researchers find that collectivism not only positively relates to consumers' green attitudes but also their subjective norms and perceived behavioral control (Sreen, Purbey, & Sadaranjani, 2018). In the context of green purchases, Nguyen, Lobo, and Greenland (2017) find that the influence of COL on social norms and attitudes is positive, but it has a negative influence on consumers' perceived inconvenience perceptions.

Another stream of research has revealed mixed findings. Eom, Kim, Sherman, and Ishi (2016) report that, for IND consumers, their individual preferences are strong predictors for a "greener" world than those of COL consumers. Loureiro and Kaufmann (2014) reveal similar findings. The researchers conclude that, in countries like the United States, Portugal, Cyprus, Serbia, and South Korea, with different scores on IND versus COL, people in more individualistic and masculine societies are relatively more proactive and assertive in their attitudes, decisions, and reactions toward sustainability. IND and COL both have significantly positive relationships with consumers' green perceptions and attitudes in some studies. For

example, Muralidharan et al, (2015) find a significant effect of environmental concern on green buying behavior of both Indians/collectivists and Americans/individualists. Similarly, Chen, Chen, and Tung (2018) find that COL and IND positively relate to consumers' product attitudes; however, only COL positively influences consumers' environmental attitude. There are further interesting findings. For example, in Mexico, Spain, and Germany in which people are high, medium, and low, respectively, on COL cultural dimensions, Higueras- Castillo et al. (2019) find that consumers' collectivism relates positively to consumers' energy saving behavior in Mexico and Spain but not Germany. In addition, the findings of Barcellos, Bossle, Perin, and Vieria (2014) show that IND and COL positively relate to attitudes toward the environment and nature. Researchers have sometimes found a negative relationship of COL with consumers' environmental behavior. For example, in their study, Lee et al. (2014) find that COL/altruistic values negatively influence consumers' environmental activist behavior. From these findings, one can conclude that COL and IND cultural values both sometimes play a significant role in influencing consumers' green perceptions and attitudes.

2.4.2 Direct effects on consumers' behavioral intentions and actual choices

Studies have demonstrated that consumers' green behavioral intentions and actual choices can be attributed to the components of their self-enhancement and self-transcendence personal values (Schwartz, 1992). For example, Riper et al. (2018) find no direct effect of altruistic, egoistic, and biosphere elements on consumers' behavioral intentions. Moreover, in their research, Jacobs et al. (2018) find that consumers' biosphere and altruistic values positively, but egoistic and hedonic values negatively, influence their sustainable clothing purchase behavior. Urien and Kilbourne (2011) find that self-enhancement does not influence consumers' ecofriendly intentions. In the context of green restaurant visiting, Teng et al. (2014) reveal that, consumers' self-transcendence values—that is, universalism and benevolence—positively influence travelers' intentions to visit a green restaurant. Examining willingness to pay for green electricity, Hansla et al. (2008) find that consumers' self-transcendence values positively, but their self-enhancement values negatively, correlate with their willingness to pay. In the context of organic food purchase, Kareklas, Carlson, and Muehling (2014) find that frugality, an egoistic value characteristic, significantly negatively influences consumers' organic food purchase intentions; however, a pro-environmental lifestyle, which is an altruistic value characteristic, does so positively.

Some studies have reported mixed results regarding the effects of consumers' self-transcendent and self-enhancement personal values on their sustainable consumption. For example, Mork et al. (2018) find a positive direct relationship of universalism (self-transcendence) and achievement values (self-enhancement) on consumers' personal norms and social norms in terms of increased use of organic

produce in public institutions. In their study, Shin, Moon, Jung, and Severt (2017) find an insignificant negative relationship of biosphere values on willingness to pay for organic menus in restaurants. Gonzalez et al. (2015) find that consumers' environmental behaviors relate not only to altruistic motives but also positively relate to their egoistic motivational forces. In another study, consumers show positive purchase intentions when the egoistic product attributes fulfil their self-interests (Schuitema, Judith, & Groot, 2015). Similarly, Hartman, Eisend, Apaolaza, and D'Souza (2017) find that, when consumers' feel rewarded—such as when green products give them the intrinsic emotional reward of a warm glow—this more strongly influences their pro-environmental intentions than their altruistic traits do. The findings indicate that, sometimes, consumers' self-enhancement motives are stronger than their self-transcendence oriented motives, and other times both effect consumers' sustainable choices.

Multiple studies have examined the direct influence of IND versus COL on consumers' behavioral intentions and actual choices in different contexts. For example, Tsen, Phang, Hasan, and Buncha (2006) find that consumers' COL values have a significant influence on their willingness to pay. In the same manner, Cheah and Phau (2011) indicate that collectivist consumers are more ecofriendly compared with individualistic consumers when they purchase environmental products. In the green restaurant research context, Jang, Chung, and Kim (2014) find that COL positively influences consumers' perceived effectiveness. Kim and Choi (2005) find that collectivists appear to engage in recycling behavior more than individualists do. Xue (2015) finds a direct influence of COL green appeals on consumers green brand attitudes. In addition, in their study, Xiang et al. (2019) find that individualists are less likely to take climate-friendly actions than those with more collective orientations. For example, in collectivist China, consumers' information about green products promote their green purchase behavior (Cheung & To, 2019).

Other studies have also put forward relevant findings. For example, Morren and Grinstein (2016) find that, compared with IND, the intention of consumers in COL to behave environmentally is more likely to translate into real environmental behavior. Regarding green purchasing, Chan and Lau (2002) find that, compared with IND culture, in collectivistic cultures, purchasers are more inclined to follow social norms and less inclined to follow attitudes in their green purchasing behavior. Wang (2014) in his study in Taiwan found, that collectivism exerts a positive influence on consumers' green purchase intentions. Likewise, Kaufmann, Panni, and Orphanidou (2012) identify collectivism as important factor that positively affects consumers' green purchasing behavior.

Some researchers have found an opposite effect of IND and COL on green purchasing. For example, in their study, Chan and Lau (2002) find a weaker influence of green purchase intention on the green purchasing behavior of collectivistic Chinese consumers than individualistic Americans. In the study by Lee et al. (2014), the effect of collectivism is not positively related to consumers'

pro-environmental behavior. Lu et al.'s (2015) study shows that IND does not directly influence consumers' green buying intentions. Liobikeine et al. (2016) find that IND has a negative relationship with green product knowledge. Minton et al. (2012) generate interesting findings regarding sustainable behavior on social media in COL and IND countries. They find that, except Korean/collectivistic consumers, the involvement motives of German and US individualistic consumers lead to anti-materialistic views and organic food purchase. However, for all countries, involvement motives positively influence consumers' recycling behaviors and green transportation use. They further find that, for collectivist Koreans, their social media involvement leads to sustainable behaviors but not recycling, in contrast to Germans/individualistic consumers.

Comparably to the findings delineated above, Xue (2015) finds that, more than positive message frames, negative message frames using individualistic appeals are favored by collectivistic consumers, and their brand attitudes, trust, and purchase intentions are higher. Barbarossa et al. (2015) find that there is a positive influence of green self-identity on the purchase intentions of Belgians and Danish but not Italian consumers. Researchers have also examined how family influences people's ecological decisions. For example, Muralidharan et al. (2015) find that family and peers, as socialization agents, positively influence the purchase behavior of young millennials in India/collectivistic and US/individualistic countries. In another study conducted in France/individualistic and India/collectivistic countries, Gentina and Singh (2015) find that French teens express a greater effect on their parents' eco-behavior and use bilateral influence strategies; however, in India, the effect is low and parents are inclined to employ unilateral influence strategies.

2.4.3 Indirect effects on consumers' perceptions and attitudes

As we have seen, Schwartz's (1992) personal values play an important role as direct influencers of consumers' perceptions and attitudes. There is also evidence that shows the indirect influence of cultural values on consumers' perceptions and attitudes via different factors. For example, Stern, Dietz, Kalof, and Guagnano (1995) find that self-enhancement values negatively relate to consumers' environmental attitudes and self-reported behaviors. In another study, Gatersleben, White, Abrahamse, Jackson, and Uzzell (2012) find a positive relationship of altruistic and biosphere value orientations with the consumers' adoption of pro-environmental behavior; they suggest that, to promote sustainable lifestyles, a meaningful interpretation of a large value context in which actions are situated requires further exploration. Accordingly, there is evidence that egoistic, altruistic and biosphere value orientations contribute significantly to the explanation of consumers' environmental behavior (Swami, Chamorro- Premuzic, Snelgar, & Furnhame, 2010). Steg et al. (2011) have further showed that that biosphere and altruistic values strongly relate to personal norms, resulting in multiple motivations that lead to environmental activism; however, egoistic values

negatively relate to environmental activism. Moreover, a study by Riper et al. (2018) shows that only altruistic values significantly predict consumers' engagement in environmental behavior through their motive to escape consumption.

In the context of electric car use, Barbarossa, Pelsmacker, and Moons (2017) confirm that four personal values (i.e., self-transcendence, self-enhancement, openness to change, and conservation) influence consumers' green self-identity and moral obligations. However, consumers with high self-enhancement values consider ecological care and moral obligations less than with high self-transcendent values. Hansen, Risborg, and Steen (2012) find similar effects, reporting that self-enhancement values have a negative influence on consumers' attitudes, while openness to change and conservation have insignificant effects; however, self-transcendence values ae positively related to consumers' attitudes toward free purchases. Thogersen et al. (2015) find that universalism values have a direct, insignificant influence on buying organic vegetables, but the influence is positive in relation to their attitudes. Sánchez, Lopez-Mosquera, Lera-Lopez, and Faulin (2018) examine the indirect influence of biosphere, altruistic, and egoistic values on consumers' willingness to pay to reduce noise pollution in road transportation. The authors find a significant role of attitude between the biosphere versus altruistic types but not egoistic values and willingness to pay. However, perceived behavioral control significantly mediates the relationships between all three of these values and willingness to pay.

There is also research evidence that IND versus COL cultural values indirectly influence consumers' perceptions and attitudes. For example, Tascioglu, Eastman, Bock, Manrodt, and Shepherd, (2019) find that consumers' commitment, satisfaction, and loyalty perceptions decrease when green product prices increase in Turkey/collectivist culture compared with US/individualist culture. Xue (2015) finds that collectivistic green advertising appeals positively influence consumers' attitudes toward green ads and their green brand perceptions. In a study including three countries—Belgium, Denmark, and Italy—Barbarossa et al. (2015) find that consumers' self-identity positively influences their attitudes via environmental concern.

Tam and Chan (2017) find that IND versus COL moderates consumers' environmental concern and pro-environmental behavior relationship; the association is higher in societies with higher levels of individualism and looseness. However, in another study by Bedard and Tolmie (2018) focusing on the United States, the researchers conclude that the IND versus COL cultural dimension does not play a significant moderating role in green purchase intentions. In the context of green food, Perrea et al. (2014) find that, in China, collectivism influences consumers' technological attitudes, which in turn, effects their attitudes toward green food and the environment. Mo, Liu, and Liu (2018) examine consumers' perceptions toward functional green advertising for the self and others. Their research findings reveal that, in individualistic cultures, consumers' perceived

effectiveness on the self predicts their support for the regulation of functional green ads, while in collectivistic cultures, the perceived effectiveness on others does so.

2.4.4 Indirect effects on consumers' behavioral intentions and actual choices

De Groot and Steg (2010) find that Schwartz's values help understand consumers' changing beliefs and pro-environmental behavioral intentions. Further, Pinto et al. (2016) find that consumers' self-transcendence and self-enhancement have more influence on their green consumption intentions when their personal identity compared with their social identity is activated. In hospitality research, Han (2015) finds that travelers' biosphere values positively influence consumers' behavioral intentions via their subjective norms, attitudes, and perceived behavioral control. According to Hansla (2011), consumers with a self-transcendent value orientation are more willing compare to those with a self-enhancement value orientation to pay for sustainable eco-labelled electricity. Ojea and Loureiro (2007) find that the probability of individuals paying for wildlife preservation will be higher with pro-environmental attitudes formed by their altruistic and egoistic values. Similarly, Ngyun et al. (2017) find a positive indirect influence of consumers' altruistic values via personal norms, perceived barriers, environmental attitudes, and subjective norms on their purchases of energy-efficient appliances.

In contrast to the findings delineated above, Steg et al. (2014) suggest that biosphere values influence the choices of people they make and their evaluation of the consequences of their behavior. Van der Werff, Steg, and Keizer (2013) find that biosphere values are the best predictor of self-identity, resulting in pro-environmental behavior intentions, and subsequently, towards pro-environmental actions. The research study by de Groot and Steg (2007) reveals that altruistic, biosphere, and egoistic values can explain variance in personal norms and awareness of consequences of real car use. Steg, Groot, Dreijernik, Abrahamse, and Siero (2011) further support the notion that consumers' egoistic, altruistic, and biosphere values are strongly related to personal norms and the acceptability of energy policies. Most recently, Yadav (2016) finds that consumers buy organic food for both altruistic and egoistic reasons. Similarly, research has been conducted to examine how consumers' biosphere, altruistic, and egoistic values influence consumers' purchase behavior of sustainable clothing through affinity to online and catalogue shopping, price sensitivity, fashion consciousness, and preference for durability (Jacobs et al. 2018). The authors find that consumers' biosphere and altruistic values positively related to their sustainable clothing purchase behavior, but egoistic and hedonic values remarkably hinder such behavior.

Some studies have found a negative relationship between Schwartz's (1992) personal values and consumers' environmental choices. For example, Follows and

Jobber (2000) find a negative influence of self-transcendent and self-enhancement values when combined with conservation values on consumers' environmentally responsible purchase intentions via environmental and individual consequences. The authors explain that the results are different because of the product choice. Similarly, Ramayah et al. (2010) replicate the research of Follows and Jobber (2000) in Malaysia. They found that the influence of self-enhancement values is significantly negative but the effect of self-transcendent values is significantly positive via individual consequences and environmental consequences toward consumers' intention to purchase green products. Lee and Cho (2010) explain that, when products damage the environment in the long-run consumers' self-transcendence values are more influential than their self-enhancement values are, and because of this, consumers engage in socially responsible consumption.

Research informs us that there is an indirect influence of IND versus COL on consumers' behavioral intentions and actual choices. Studies have shown that consumers of individualistic countries have egocentric environmental concerns (buying products for pro-self-reasons) and consumers from traditional collectivistic countries show altruistic environmental behaviors (buying green products for in-group or collective reasons; Milfont et al., 2006). This research assumption is further supported by Soyez (2012), who finds a positive correlation of egocentric values with consumers' pro-environmental behavioral attitude and intentions in both collectivist and individualistic cultures. Lee and Cho (2019) found that collectivism positively influences consumers' socially responsible choices, such as supporting corporate social responsibility through purchasing, recycling, trading traditional purchases for social responsibility, and thinking about the environmental impact before purchasing and consuming.

Research by Lu et al. (2015) reveals a positive indirect influence of individualism on green buying intentions via consumers' ethical beliefs. Similarly, through attitude, collectivism indirectly influences consumers' recycling behavior (McCarty & Shrum, 2001). In the context of climate change actions, Xiang et al. (2019) reveal that consumers with individualist orientations are more subject to perceived intractability and less likely to take climate-friendly action than those with a more collectivist orientation. In predicting the moderating role of collectivism, Saleem, Adeel, Ali, and Hyder (2018) find that increase in COL cultural orientations increases students' eco-entrepreneurship intentions of students. Moreover, they find that perceived intractability mediates the relationship between consumers' individualist/collectivist status and climate change inaction. Moreover, dealing with IND and COL, Chen et al. (2018) find a positive indirect influence of both values on consumers' green purchase intentions through their environmental attitudes and product attitude.

In contrast to the results described above, Lee et al. (2014) find that, through perceived effectiveness and environmental concerns, COL/altruistic values positively influence consumers' green purchase behavior. In addition, Taufique

and Vaithianathan (2018) find that, through behavioral intentions, there is a positive influence of perceived consumers' effectiveness on their eco-conscious behavior in the collectivistic country India. However, in their study, Mishal, Dubey, Gupta, and Luo (2017) concluded that there was a negative influence of consumers' perceived effectiveness on green purchase behavior. These findings contradict each other maybe because of cultural difference, social settings, and change in beliefs of consumers. Yen, Wang, and Yang (2016) examined how moral identity mediate and moderate the relationship between COL and fair-trade products' purchase intentions. They found that high moral identity significantly moderates and mediates the proposed COL and fair-trade buying intentions relationship. Another mediation analysis by Sreen et al. (2018) revealed that, through subjective norms, perceived behavioral control, and attitude, collectivism positively influence consumers' green purchase intentions.

2.4.5 Regulatory focus and environmental responsibility as mediator effects of cultural differences

Regulatory focus theory (RFT) is an important theory in the consumer behavior field (Higgins, 2012; Kirmani & Zhu, 2007; Polman, 2012; Pula, Parks, & Ross, 2014). Research reveals that a consumer's concern relating to purchase of a product or service depends on how he/she thinks about gaining potential benefits or preventing negative outcomes from consuming a certain product (Aaker & Lee, 2006). Accordingly, consumers will pay more or less for a product if it matches their promotion or preventive focus orientation (Avnet & Higgins, 2006). Studies have found that prevention-focused oriented individuals perceive utilitarian products that possess functional features favorably, whereas promotion-focused individuals prefer products with hedonic features (Chitturi, Raghunathan, & Mahajan, 2008).

There is evidence that individual difference in regulatory focus orientations influences environmentally friendly behaviors. Research has examined RFT in the context of green consumption (Chen, Lee, & Huang, 2015; Miniero et al., 2014; Onwezen, Bartels, & Antonides, 2014), green advertising (Bhatnagar & McKay-Nesbitt, 2016; Kareklas, Carlson, & Muehling, 2012), and consumers' organic food consumption (Hsu & Chen, 2014). However, research has reported mixed findings. For example, studies have found that, given the responsibility and obligatory type of orientation, prevention-focused consumers feel a moral duty to adopt green lifestyles (Miniero et al., 2014). Pula et al. (2014) found that prevention-focused consumers prefer natural ingredients in food. In contrast, promotion-oriented consumers are interested in achievement and aspirations; therefore, they do not strongly feel the need to change their behavior toward green consumption (Miniero et al., 2014).

From the cultural perspective, while determining the role of the regulatory focus orientation of consumers' sustainable choices, studies have mainly been based on

two typical frameworks, namely, self-construal (independent and interdependent selves) (Chen et al., 2015; Kareklas et al., 2012) and individualistic and/or collectivistic consumers (Chen, Ng, & Rao, 2005; Lee et al., 2000). In this study, it is argued that, since consumers are different in terms of their personality and cultural values across different cultures, the results of earlier research on the topic may lack compatibility and specificity of RFT with consumers' environmental behavior motives. Accordingly, earlier research provides theoretical justifications for this argument. For instance, it has been found that consumers' regulatory focus orientation can be different across cultures in the context of ethnic food consumption (Bu, Kim, & Son, 2013). Shavitt, Lee, and Torelli (2009) argue that an independent promotion regulatory focus can be limited to VI cultures compared with HI cultures, whereas interdependent regulatory focus can be prevalent in VC cultures rather than HC cultures. Miniero et al. (2014) state that there is a difference between a chronic regulatory focus and momentary regulatory focus orientations across individuals and different situations.

Conversely, substantial research has examined the role of environmental responsibility as an important factor driving consumers' environmental behavior. According to Eden (1993) when a person perceives that he/she is responsible for protecting the environment, his/her sense of environmental responsibility tends to rise. Moreover, an environmentally responsible lifestyle is a reflection of an individual's knowledge about nature and ecology and understanding of environmental issues (Gifford & Nilsson, 2014). Kumar and Ghodeswar (2015) state that environmental responsibility is a consumer's personal commitment to protect the environment. Researchers have concluded that a person willing to solve environmental problems will act responsibly in terms of his/her personal habits, lifestyles, and purchases (Follows & Jobber, 2000; Kinnear, Taylor, & Ahmed, 1974; Paco & Rodrigues, 2016).

Plenty of research has described the responsibility feelings of consumers as a predictor of ecological behaviors (Hines, Hungerford, & Tomera, 1987; Kaiser, Raaney, Hartig, & Bowler, 1999). According to Thøgersen and Ölander (2002), consumers with sufficient knowledge about the environment tend to make appropriate choices with regard to their environmental responsibility. Paco and Rodrigues (2016) say that perceived environmental responsibility predicts consumers' environmental attitudes. There is extensive evidence regarding these phenomena in green research. For example, Arli, Tan, Tjiptono, and Yang (2016) find that consumers with a sense of responsibility to protect the environment are not only ready to be green but also purchase green products. Some researchers have concluded that consumers are now more sensitive toward green purchasing due to an increasing awareness of the environmental impact of their actions; therefore, consumers' sense of responsibility guides them to evaluate and form opinions regarding the purchasing of green products (Kanchanapibul, Lacka, Wang, & Chan, 2014; Miniero et al., 2014). For example, Ngo, West, and Calkins (2009) find that people who take personal responsibility for solving environmental problems make green choices, such as buying lower emission vehicles.

The concept of environmental responsibility can also be regarded as a display of indirect socially responsible behavior (Paco & Rodrigues, 2016). Aslihan Nasir and Karakaya (2013) find that environmental responsibility moderates the relationship between socially acceptable consumption and consumers' purchase intentions. Yu, Yu, and Chao (2017) divide environmental responsibility into a chain of three sub dimensions, namely, environmental ethics (individuals' expression of moral judgement), social responsibility (for extrinsic advantage like adherence to social norms), and self-responsibility (for intrinsic advantages like consumption of green products). Moreover, environmentally responsible consumers not only see improvement in their image but also tend to perceive that they are projecting a good image as environmentally responsible persons to others (Lee, 2008; Nyborg, Howarth, & Brekke, 2006). ER may also vary across different cultures. For instance, Ramanaiah, Clump, and Sharpe (2000) find that individuals who score high and low on environmental responsibility are different in terms of their values and personality profiles. Accordingly, the literature shows the importance of culture in consumers' environmental responsibility and their green purchase behavior (Dagher & Itani, 2014; Schultz, 2002) specifically across individualistic versus collectivistic cultures (Hanson-Ramussen & Lauver, 2018). From the above research illustrations and theoretical justifications, in terms of consumers' environmental behavior, it can be inferred that their RFT orientation and the strength of their environmental responsibility may be different in H/V IND-COL cultures.

2.5 Development of conceptual framework and research propositions

The previous chapter of this thesis dealt with the introduction and background to the research and reviewed comprehensive literature regarding the cultural frameworks, as well as the direct and indirect role of culture, environmental responsibility, and RFT in sustainable consumption. The conceptual underpinnings of this study are further illustrated for understanding, positioning, and connecting the concepts in Figure 5.

Figure 5 illustrates how sustainable consumption links with and originates from HI versus VC cultural values, as well as how a regulatory focus orientation and environmental responsibility mediate the relationship toward consumers' GPEs. In other words, the model indicates the linkage of four essays of this dissertation from sociocultural values (HI versus VC) level via motivational level (regulatory focus and environmental responsibility) toward product experience level (green branding perceptions and green behavioral intentions). The framework conceptualized the linkage of those ideas in such a way that, at the pre-understanding acquisition phase, HV versus VC plays a significant role in determining consumers' green branding perceptions and green behavioral intentions (direct effects; E1). In E2, both HV and VC cultural values are

theoretically proposed and empirically tested to uncover consumers' organic food motives (direct effects). Further, in E3, it is proposed that consumers' regulatory focus, such as the promotion-focused versus prevention focused orientation, influences their HV versus VC cultural values, and consequently, their environmental behavior (i.e., environmental attitude and purchase intentions; indirect effects). In E4, it is proposed that HV and VC cultural values influence consumers' environmental responsibility and that environmental responsibility will mediate between HV, VC, and environmental behavior (i.e., environmental attitude and purchase intentions) relationships (indirect effects).

Based on the discussion presented in the theoretical section and its culmination in the conceptual framework, the following two broad research propositions can be put forth and subjected to empirical testing. The first concerns the direct influence mechanisms of HI and VC on GPE, while the second relates to the indirect influence mechanisms.

P1: As sociocultural factors, HI and VC will uniquely influence consumers' GPEs along their components of perceptions, intentions to transmit word of mouth, and willingness to pay.

P2: As sociocultural factors, HI and VC will uniquely influence consumers' regulatory focus and environmental responsibility orientations, which in turn, will shape their GPEs along their components of attitudes and intentions to purchase as individual-level motivational factors.

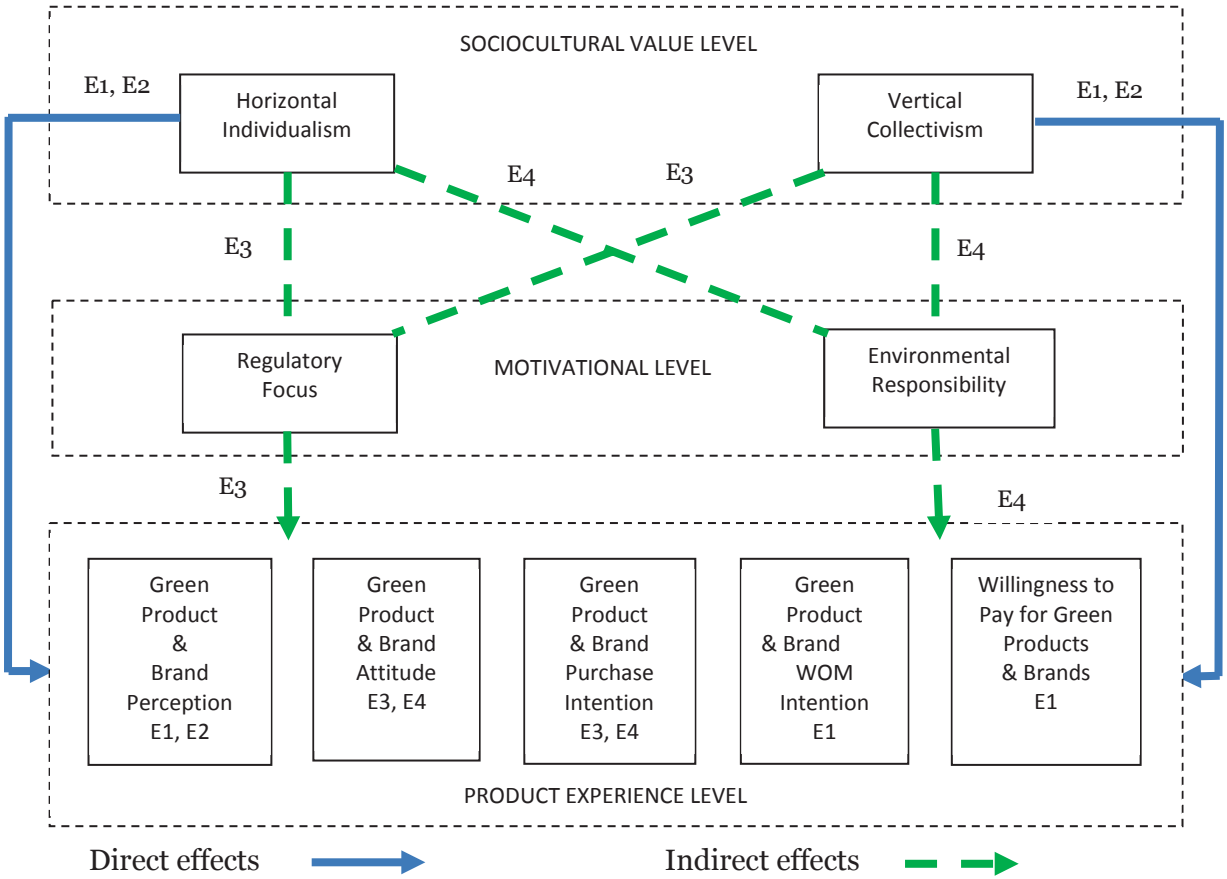

Figure 5. Conceptual framework.

3 RESEARCH METHODOLOGY

Academically, a research methodology signifies the strategy or action plan used to choose the methods and techniques that will help find the outcomes of the problem under inquiry (Creswell, 2003). The research design comprises choosing an appropriate research philosophy, paradigm, and strategy that includes procedures to define the sample, operationalization of questions, data collection and analysis the data, piloting study, and data analysis techniques (Cooper & Schindler, 2008; Saunders, 2011). For examining the research problem of this dissertation, I followed the research design described below.

3.1 Philosophical assumptions of the dissertation

Researchers make different assumptions about the development of knowledge. For example, they ask, "What is real?" (Ontology), "How can we know anything?" (Epistemology), and "What methods should we use to conduct research?" (Methodology) (Collis & Hussey, 2013). Ontology is an abstract assumption about the nature of reality, such as how a researcher sees and studies the research objects. These objects include all the things, events, and artefacts he/she observes. Epistemology is an assumption about knowledge; what constitutes acceptable, valid, and legitimate knowledge; and how to communicate knowledge to others. For instance, business and management is a multidisciplinary field constituting different types of knowledge; therefore, it includes numerical, textual, and visual data. Accordingly, a business researcher can adopt different epistemologies in his/her research based on historical data, narratives, and fictional literature from facts to interpretations (De Cock & Land, 2006; Saunders, Lewis, Thornhill, & Britow, 2015).

The research philosophy relates to the assumptions adopted for developing knowledge and understanding the nature of that knowledge, such as advancing knowledge in a specific field (Saunders, 2011). A well-defined research philosophy based on a consistent set of assumptions can help in underpinning the choice of methodology, research strategy, data collection and techniques, and analysis procedure (Saunders et al., 2015). Philosophical assumptions guide researchers to position their research in relation to different paradigms, such as positivism, interpretivism, critical realism, postmodernism, and pragmatism; this helps in choosing the appropriate methodology among various techniques (Collis & Hussey 2009). Especially, debates on epistemology and ontology often frame the choice between following either a positivist or interpretivist research philosophy (Saunders, 2011).

For positivists, the aim of social research is discovering of patterns and regularities in social reality using scientific methods (Denscombe, 1998). They think reality is separate from the observer. In general, positivists view the object (phenomenon) and subject (researcher) as two separate, independent things. A research

philosophy that reflects positivist principles is a stance of natural scientists, such that the researcher is independent and neither affects nor is affected by the subject of the research (Remenyi, Williams, Money, & Swartz, 1998). In contrast, interpretivism advocates that reality is not separate from the individuals who observe it. Interpretivism emphasizes conducting research among people rather than objects and understanding people in our society as social actors. People as actors play a role wherein they interpret phenomena in a specific way and then act in accordance with those interpretations. For example, people interpret their everyday roles in terms of the meanings they give to those roles. Similarly, people interpret others' roles in society in relation to their personal set of meanings and interpretations. In interpretivism's epistemology, the researcher adopts an empathic stance by entering into the social world to understand the subjects' perspective. Researchers who follow interpretivism think reality is reflected through culture, experiences, history, and goals (Weber, 2004). Two main intellectual traditions advocate interpretivism: Phenomenology refers to how humans make sense of the world around them, while symbolic interactionism means that we interpret the actions of others with whom we interact (Collis & Hussey, 2009; Saunders et al., 2015). Interpretivism may be useful for finding and developing knowledge in a detailed manner (Weber, 2004).

Another difference between positivism and interpretivism is the use of the research method. Positivist researchers often use a structured methodology, and their emphasis is on quantifiable observations and the use of statistical analysis (Gill & Johnson, 2002). For example, positivists observe the phenomena, leading to the production of credible data; they generate a research strategy to collect that data using field experiments and surveys and use existing theory to develop hypotheses. Following this, the hypotheses are tested, then confirmed or rejected; this leads to the development of further theory that may be tested in further research. In interpretivism, researchers use qualitative methods of research, such as ethnographic, phenomenon-graphic, ethno-methodological, and case studies. For example, to study values, beliefs, understandings, meanings, and perceptions of people, a qualitative study design is appropriate. In contrast, quantitative research is appropriate if a researcher is measuring the magnitude of variation in people's perceptions or beliefs (Kumar, 2011). To analyze and organize, and thus, draw conclusions from the data, positivists use a deductive research design. Inductive research design is appropriate for researchers following interpretivism. In an inductive design, researchers explore the variation and diversity in any aspect of social life, whereas in a deductive research design, researchers investigate the extent of variation and diversity.

Although the two philosophical positions of research involve two different types of research methods, the choice of method can also depend on the research interest of the researcher, including many other factors that directly or indirectly influence the researcher. These factors comprise social and work pressure, research training, and the preference types of insights in acquiring knowledge for the research work.

When pursuing a positivist epistemology, researchers use a deductive research design. The deductive process involves several steps (Sekaran, 2006). The use of a deductive study design requires the selection of quantitative method. The first step in the deductive process is deducing and formulating hypotheses or propositions from personal experiences or establishing the desire to solve an existing problem. Then, researchers operationalize theories and the hypotheses or propositions in concepts. For instance, operationalization can involve analyses and evaluation of concepts and theories. In the next step, the researchers select an appropriate methodology, such as sampling, research instruments, analysis methods, approaches to measuring and quantifying empirical observations, and the method of data collection. Simply, the objective of the second step of deduction is measuring the operationalized concepts and theories using the appropriate method and applying relevant techniques or tests to test the hypotheses. The last step of deduction involves confirmation or rejection of the theories and concepts (Lancaster, 2007). Accordingly, positivist research informs the methodology of this thesis; thus, it follows the determinism, empiricism, parsimony, and generality assumptions of positivism (Cohen, Manion, & Morrison, 2000).

Since we argue that sustainable consumption is shaped by cultural values; therefore understanding this is necessary for prediction and control of different factors influencing consumers' perceptions. Then, empirical evidence is required to support the propositions generated in light of the earlier literature findings. Following this, explanation of the phenomena is important. Finally, the results can be generalized to relate them to the world at large. Having explained the difference between positivism vs interpretivism, and their usefulness in research, this research adopts the positivist approach in all the essays. (See Table 4).

Table 4. Data Collection Methods, Analytical Approaches, and Epistemological Stances Adhered to in the Essays

Essays	Data collection method	Data analysis approach	Epistemological stance
Essay 1	Online and offline surveys of Finnish, Pakistani, and Turkish consumers	Structural equation modeling (SEM)	Positivistic
Essay 2	Hard laddering pen-pencil survey of Finnish and Pakistani consumers	Means-end-chain (MEC) method of analysis using MECAnalyst software	Positivistic
Essay 3	Questionnaire survey from	Partial least squares (PLS)-SEM	Positivistic

Essays	Data collection method	Data analysis approach	Epistemological stance
	Finnish and Pakistani consumers		
Essay 4	Questionnaire survey of Finnish and Pakistani consumers	PLS-SEM	Positivistic

3.2 Research approach and strategy of dissertation

In accordance with the positivist paradigm, this study follows a deductive research design to acquire research insights from earlier literature on cultural values and environmentally friendly products. As several research approaches are present in the literature for confirming the linkage between consumers' cultural values and their sustainable consumption behavior, and the vast body of knowledge in this research domain has foundations in positivistic and deductive methods, this study follows the same strategy of confirmatory research to test the formulated hypotheses. The research strategy of each essay is further explained as follows: In a pre-understanding acquisition phase, first, the direct effects of HI and VC on green product perceptions are observed (E1). The findings of E1 pave the foundation to help in E2 for exploring the direct role of HI and VC cultural values in organic food choice motivations. Following this, the indirect role of HI versus VC cultural values through consumers' regulatory focus orientations (E3) and environmental responsibility (E4) is examined to explain consumers' environmental behavior in more detail. In sum, all the essays in this dissertation examine and observe consumers' environmental behavior originating from their HI versus VC cultural values using rigorous empirical methods. Moreover, this thesis builds its theoretical foundation on the importance of the H/V IND-COL cultural typology in consumer research, examining consumers' environmental behavior across two countries, namely, Finland/HI and Pakistan/VC (see Figure 6 and Table 5).

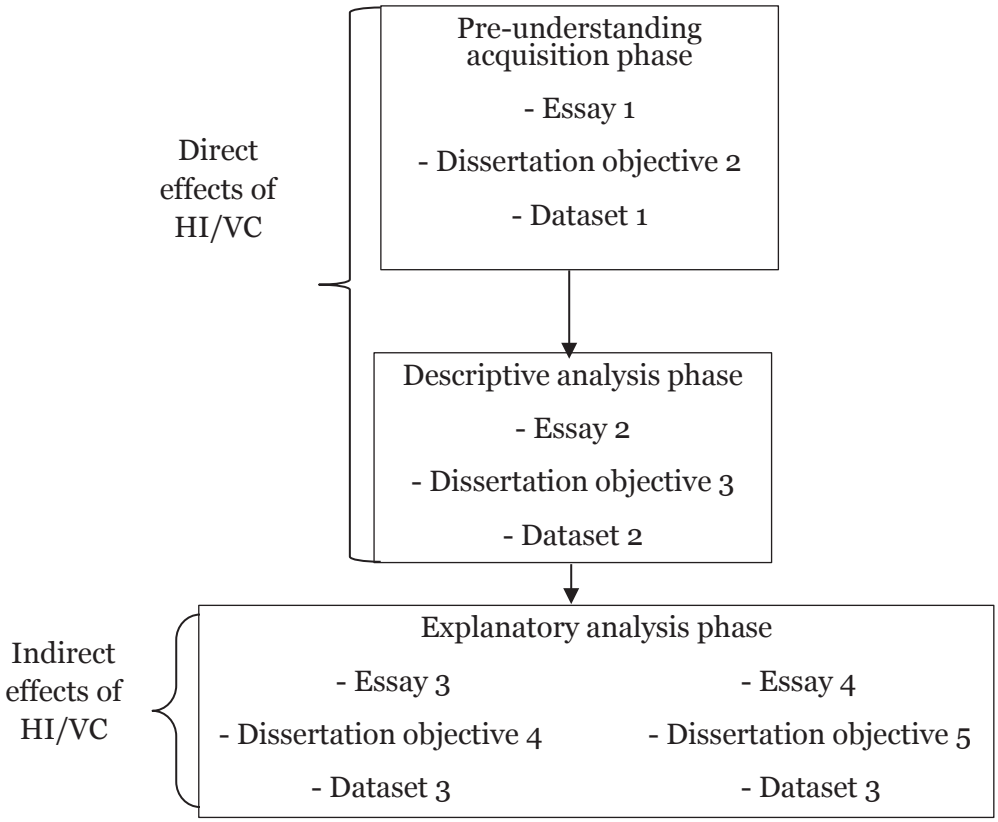

Figure 6. Research strategy of the dissertation.

Table 5. Finland/HI and Pakistan/VC (Hofstede's 1980)

	HI –	HI +
VC –		Finland: individualism 63, power distance 33
VC +	Pakistan: individualism 14, power distance 55	

3.3 Measurements, sampling, and data collection in individual essays

This section summarizes the research methodologies used in the essays of this dissertation.

3.3.1 Essay 1: Antecedents of green behavioral intentions: A cross-country study of Turkey, Finland, and Pakistan

The conceptual model of essay 1 comprises six relevant constructs. To measure these, scale items are adapted from earlier studies. To evaluate the face validity of the constructs, three professionals and four academicians were consulted. Except the demographic information of the respondents, all the constructs were measured using a 5-point Likert-type scale ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). Data were collected for this study in each country separately. First, from Turkey, 372 questionnaires were retrieved. Second, from Pakistani respondents, 200 responses are received, and finally, 255 respondents completed the questionnaires in Finland. Although we collected data from three countries in the pre-understanding part, data analysis and results obtained from only Finnish and Pakistani consumers represent the main part of this dissertation.

The demographic information and intercorrelation values of the constructs were obtained from frequency distributions and Pearson correlation tests, respectively, using the Statistical Program for Social Sciences (SPSS 20.0) software. Next, a two-step structure equation modeling (SEM) analysis, comprising covariance and confirmatory data analysis, was followed, as suggested by Anderson and Gerbing (1998). Models of each country and the overall model of the study were assessed using AMOS 7.0 for model fit indexes, such as chi-square (χ^2), the comparative fit index (CFI), the normed fit index (NFI), and the root mean square error of approximation (RMSEA). The data successfully achieved acceptable goodness of fit (GOF) values (see Table 6).

Table 6. Research Methodology (Essay 1)

Key decision-making areas	**Description of methodological choices**
Empirical research question(s)	What are the effects of green trust, green satisfaction, and green brand equity on consumers' green behavioral intentions in cultures that vary in terms or HI and VC?

Key decision-making areas	**Description of methodological choices**
Measurements	Green trust, green satisfaction, green brand equity, and three green behavioral intentions—purchase intention, word-of-mouth intentions, and willingness to pay Demographic variables (Age, gender, marital status, educational qualification, and income level)
Sample	Finland, Pakistan, and Turkey
Data collection procedures	Convenience sample; non-probability sampling technique
Data analysis	Statistical Program for Social Scientists (SPSS 20.0), and structure equation modeling (SEM) analysis using AMOS 7.0 software

3.3.2 Essay 2: Duties or self-reliance: Motivational patterns in sustainable food consumption in vertically collectivistic and horizontally individualistic cultures

In E2, data were collected using the paper-pencil hard-laddering interview technique. For revealing the basic Attributes, consequences, and values structures (ACV), the means-end-chain (MEC) method was applied for conducting the research. The interviews took place in urban areas, such as supermarkets, market squares, and organic/green shops.

In the first stage, to form the ACV chains, we asked the participants to rank the most important choice from the available list of product attributes (A; concrete and abstract features), consequences (C; functional and psychological motivations) and values (V; instrumental and terminal beliefs). The ACV list was produced from earlier studies. At the end of the session, consumers were asked to complete the questions on their demographic information. In total, 101 respondents filled out the questionnaires in Pakistan and 193 in Finland. The data were then coded, and the contents were analyzed using MECanalyst 1.1.0.0 application software. Table 7 shows the research methodology summary of E2.

Table 7. Research Methodology (Essay 2)

Key decision-making areas	**Description of methodological choices**
Empirical research question(s)	i. How do organic food motivation differ between HI and VC cultures? ii. Are organic food choice motivations shaped by the prevalence of the HI and VC culture life goals, and if yes, in what ways?
Measurements	Kahle's list of values (LOVs) and attributes, consequences, and values (ACVs) Demographic variables (age, gender, marital status, educational qualification, and income level)
Sample	Pakistan and Finland
Data collection procedures	Hard-laddering interviews and ACV lists
Data analysis	Means-end-chain (MEC) method using MECanalyst software

3.3.3 Essay 3: Differences in horizontally individualist and vertically collectivist consumers' environmental behavior: A regulatory focus perspective

The conceptual framework of E3 comprised six variables. The first part of the questionnaire included questions related to the variables, while the second part included questions about demographic characteristics of the respondents, such as their age, gender, marital status, education, and income level. The scale items were measured on a 5-point Likert-type scale from 1 ("Strongly disagree") to 5 ("Strongly agree"). In total, 179 useable questionnaires were received from Pakistani respondents and 207 from Finnish respondents.

To determine the demographic information and test the interrelation between the variables, the collected data were examined using SPSS 20.0 software. Moreover,

the partial least squares (PLS)-SEM technique was applied to check the hypothesized relationship of the conceptual model using the SmartPLS (v. 3.2.6) software. For model fit analysis, a two-step SEM analysis approach was separately performed on the data (Anderson & Gerbing, 1999). For the reliability and convergent validity of the data, composite reliability (CR) and average variance extracted (AVE) tests were performed. Moreover, the square root of the AVE was computed to ensure adequate discriminant validity. For the GOF indexes for the model, the amount of variance (R^2) formed by independent variables was determined. In addition, to measure the computation of the cross-validated redundancy measures (Q^2), we determined this by using a blindfolding command (see Table 8).

Table 8. Research Methodology (Essay 3)

Key decision-making areas	**Description of methodological choices**
Empirical research question(s)	i. Is there any difference in the effect of HI versus VC cultural values on consumers' promotion and prevention-focused orientations? ii. What is the effect of promotion and prevention focused orientations on consumers' environmental behavior (i.e., environmental attitude and purchase intentions)?
Measurements	Horizontal individualism, vertical collectivism, regulatory focus orientations (e.g., promotion-focus versus prevention-focus), environmental attitude, and purchase intention and demographic variables (age, gender, marital status, educational qualification, and income level)
Sample	Finland and Pakistan
Data collection procedures	Convenience sample non-probability sampling technique.
Data analysis	Statistical Program for Social Scientists (SPSS 20.0), and partial least square (PLS) SmartPLS software

3.3.4 Essay 4: Uncovering the role of horizontal individualism and vertical collectivism in consumers' environmentally responsible behavior

The questionnaire included questions to measure the independent, mediating, and dependent variables, as well as the respondents' demographic characteristics (see Table 9). The measurement scales were adopted from earlier studies. All the scale items of this study are measured on a 5-point Likert-type scale from 1 ("Strongly disagree") to 5 ("Strongly agree").

The data were collected in two stages. First, in Pakistan, 172 valid responses were received, while in Finland, 193 valid responses were received from the respondents. Following this, the demographic information and intercorrelation values of the constructs were obtained from frequency distributions and Pearson correlation tests, respectively, using SPSS 20.0 software.

In the second phase, the SEM technique was applied using SmartPLS (v 3.2.6). The software served two purposes. First, to check the reliability and validity, the CR and AVE for convergent validity were computed; then, the square root of the AVEs were calculated. Second, the hypothesized relationships were examined using SEM to generate measurement loadings and structural model analysis for the model fit purpose. In the next step, for GOF indexes for the model and amount of variance (R^2) formed by the independent variables was calculated. In addition, to measure the computation of the cross-validated redundancy measures (Q^2), we ran the calculation using the blindfolding command (see Table 9).

Table 9. Research Methodology (Essay 4)

Key decision-making areas	**Description of methodological choices**
Empirical research question(s)	i. Is there any influence of HI and VC cultures values on consumers' environmental responsibility? ii. Is there any mediating role of environmental responsibility between HI and VC cultural values and environmental behavior (i.e., environmental attitude and purchase intentions)?
Measurements	Horizontal individualism, vertical collectivism, environmental responsibility, environmental attitude, purchase intention, and demographic

Key decision-making areas	Description of methodological choices
	variables (age, gender, marital status, educational qualification, and income level)
Sample	Finland and Pakistan
Data collection procedures	Nonprobability convenience sampling technique
Data analysis	Statistical Program for Social Scientists (SPSS 20.0) and partial least squares (PLS) SmartPLS software 3.2.6

3.4 Validity and reliability of the research

Well-conducted, quality studies are an important part of research rigor. For instance, following the procedures of the research alone is not sufficient to produce reliable results (Murphy & Dingwall, 2007). Rigor is the extent to which a researcher keeps in mind the quality of the studies. Validity and reliability help a researcher to achieve research rigor (Heale & Twycross, 2015); therefore, these two elements demonstrates and communicates the trustworthiness of the research findings (Roberts, Priest, & Traynor, 2006). It is important to consider the significance of the validity and reliability of the data, tools, and instruments to uphold the research quality and trustworthiness. Accordingly, the present dissertation considers validity and reliability as important aspects of the research conducted in individual essays, where the validity and reliability procedures were carefully followed.

In quantitative studies, validity refers to the extent to which a concept is accurately measured. Validity has two further sub-dimensions, namely, external validity and internal validity. External validity refers to the ability to apply the findings of the study with confidence to other people or situations, and it ensures that the conditions under which the study has been carried out represent the time and situation to which the results relate (Calder, Phillips, & Tybout, 1982). The study sample must be representative of the population at the time of the research was conducted. Accordingly, the representative sample of people with reference to variables like their age, gender, and so on should be drawn from that population of interest. Although care has been taken to uphold the external validity in this research, on average, in most of the data collected in this study, gender and

education levels are overrepresented in both the Finnish and Pakistani populations. Specifically, the sample is skewed toward younger people and those with bachelor's degrees. It should be noted that, in consumer research, samples of student consumers are widely used as a respondent source (Ashraf & Merunka, 2016). This study does not make claims about a population, but rather, it tests new theoretical ideas regarding sustainable consumption motives phenomenon embedded in consumers' HI versus VC cultural values, using robust research methods.

Internal validity refers to the extent to which a research study has been correctly performed. The effects observed in the dependent variable are due to the manipulation of the independent variables and not other factors, which proves the internal validity of this thesis. Internal validity has three sub-dimensions (Punch, 1998). First, content validity relates to the relevance of the questionnaire to the intended settings. This validity can be achieved if a pilot study is conducted with people who are similar to the intended respondents of the research. Second, criterion-related validity involves comparing the questionnaire with the same or similar validated measures of the same concept. Third, construct validity that relates to demonstrating the relationship between the concepts measuring a phenomenon, for example, the relationship of the independent variables with the dependent variable. In quantitative studies, construct validity can be determined using the factor analysis statistical procedure. The content validity of measures in this study was achieved by pretesting the questionnaire among the Finnish and Pakistani respondents individually. For criterion validity, the questionnaire was compared with similar questionnaires. Since the questionnaires in all the essays were adopted from earlier studies, the criterion validity of the studies was not a problem. Moreover, the correlation tests using SPSS 20.0 and the discriminate validity test demonstrated the robustness of the criterion validity. Finally, to confirm the construct validity we followed convergence, homogeneity, and theory evidence criteria. For convergence, we used the convergent validity test of the instrument in AMOS 7.0 and SmartPLS 3.2.6 on the given constructs. The homogeneity and theory evidence was not a problem because the questionnaires successfully measured each construct, and they were adopted from earlier research with similar theoretical arguments and evidence.

Reliability refers to the accuracy of an instrument. It refers to the extent to which a research instrument gives same results repeatedly with different populations. In quantitative research, reliability can be tested in different ways (Heale & Twycross, 2015). For this purpose, the internal consistency of the measurement instruments/tools needs to be assessed. For example, this can be done by evaluating homogeneity or internal consistency, which refers to the extent to which all items in the scale measure the same construct. The stability of the instrument can be determined by assessing the constancy of the instrument with repeated testing. Moreover, the equivalence consistency of the instrument among the responses of multiple users of an instrument can be tested. In quantitative research, typically, the Cronbach's alpha coefficient statistical procedure is used

for checking the internal consistency of the measures. A value of alpha closer to 1.0 is considered to have higher internal consistency (Bonett & Wright, 2015). Researchers also use the composite reliability (CR) test of statistics to measure the instruments' reliability (Fornell & Larcker, 1981). CR considers the varying factor loadings of the items of the scale measuring a construct. Accordingly, CR values were used to measure the internal consistency of the instruments employed in the essays of this dissertation. The values of CR of the instruments obtained were reasonable thus indicated acceptable reliability.

4 OVERVIEW OF THE ESSAYS

This dissertation consists of four individual essays. The present chapter presents an overview and summarizes the main ideas, theoretical frameworks used, and findings and results of the essays. Each essay in this work has unique interpretations regarding sustainable consumption motives that are ingrained in consumers' horizontal individualism and vertical collectivism cultural values. Accordingly, each essay contributes both theoretically and practically to the need for understanding the sustainable consumption cultural difference phenomenon.

4.1 Essay 1: Antecedents of green behavioral intentions: A cross-country study of Turkey, Finland, and Pakistan

As a pre-understanding acquisition, E1 focused on examining whether consumers' green products perceptions differ in cultures with varying levels of VC and HI (Finland, Pakistan, and Turkey). In this essay, initial evidence for the role of cultural variation in sustainable consumption was sought. Accordingly, the problem was identified and hypotheses were devised from earlier research on the topic. The conceptual framework showed the effect of consumers' green satisfaction on their green trust and the brand equity. Further, the effect of green trust and green brand equity on consumers' green behavioral intentions (word-of-mouth intentions, purchase intentions, and willingness to pay premium) was postulated. To test the hypothesized framework, in this work, we used the theory of reasoned action (TRA; Ajzen & Fishbein, 1980). The TRA model focuses on the motivations of individuals as determinants of their probable engagement in specific behavior.

This study is carried out in three separate countries, namely, Turkey, Finland, and Pakistan. The results demonstrate that Turkish consumers' green satisfaction contributes to the formation of their green trust and green brand equity. Further, their green trust positively influences their green brand equity perceptions. Consequently, trust and brand equity positively influence green behavioral intentions. In other words, Turkish consumers are satisfied with green white brands, consider green white brands trustworthy, and have positive green brand equity perceptions towards green brands. Further, they are not only willing to pay premium but also spread positive word of mouth and show positive purchase intentions regarding green white brands. Concerning the results obtained from the Finnish sample, except for the insignificant effect of green trust on willingness to pay, the hypotheses were accepted. This means that, although Finnish consumers are satisfied with green white products, consider green brands trustworthy, and have positive green brand equity perceptions, their trust perceptions fail to influence their willingness to pay premium. In other words, Finnish consumers are not comfortable paying premium for green white products. Regarding the results

from the Pakistani sample data, we found that the brand trust influence on consumers' willingness to pay premium and word-of-mouth intentions was insignificant; however, the remaining hypotheses were significantly positive. This means that Pakistani consumers are reluctant to pay premium and their trust in white products is not positively related to their word-of-mouth intentions.

The empirical findings of this essay clearly show the importance of the interrelationships between green satisfaction, green trust, and green brand equity factors, and consequently, the formation of consumers' purchase intentions due to green trust and green brand equity. Importantly, Finnish and Pakistani consumers exhibited reluctance in terms of their willingness to pay premium and word-of-mouth intentions, respectively. To note here, the results of Finnish and Pakistani data of this study were taken as a pre-understanding acquisition phase for the remaining essays, and they are further discussed in the discussion chapter (see Table 10).

Table 10. Essay 1 Summary

Key content areas	**Description of outcome**
Conceptual rationale	Pre-understanding consumers' green white product perceptions in Pakistan (vertical collectivistic) and Finland (horizontal individualistic) Theory of reasoned action (TRA) used for examining consumers' green products' choice
Methodological solutions	Opposing the conventional using of only one construct to measure behavioral intentions of consumers, in this essay, three different concepts—purchase intentions, word-of-mouth intentions, and willingness to pay premium—were taken to measure consumers' green behavioral intentions in more detail
Empirical findings	The most effective customer-based green brand equity perceptions across three countries were found The results revealed that consumers' behavioral intentions vary for different reasons across different countries
Emerging new understanding	There can be a role of culture in consumers' green brand perceptions and behavioral intentions The potential disconnection between green brand perceptions and behavioral intentions can be used for further theory and

Key content areas	Description of outcome
	practice in cross-cultural context, such as in VC and HI cultures

4.2 Essay 2: Duties or self-reliance: Motivational patterns in sustainable food consumption in vertically collectivistic and horizontally individualistic cultures

The important component of the second essay centered on finding the role of HI and VC cultural values shaping the meanings attached to consumers' organic food choice motivation in Finland and Pakistan (Triandis, 1995; Triandis & Gelfand, 1998). This essay discovered different motives linked to consumers' life goals, as measured by Kahle et al.'s (1986) LOV originating from HI and VC cultural values. To do this, two questions were devised: How do organic food motivations differ between HI and VC cultures? Are organic food choice motivations shaped by the prevalence of the HI and VC culture life goals, and if so, in what ways?

The data revealed unique organic food attributes, consequences, and value chains from each country. Organic food choice motivations both diverged and converged in both countries. For instance, we extracted an ACV chain of eight attributes. Four attributes, namely, "environmentally friendly," "natural," "chemical free" and "healthy" are common in both countries, while "price" and "support for farmers" are significant in Finland. At the consequences level of the ACV chain, five consequences—"it is a healthy product," "consuming quality food," "regulates my health and that of my family," "makes me feel good," and "it is genuine"—are common in both countries. In contrast, two consequences—"It is nutritious" in the Pakistani sample and "It helps sustain local agriculture" in the Finnish sample—are unique. Four out of five values are common to both countries, whereas "It provides me emotional fulfillment" is unique to Finland. The remaining four values that may motivate consumers to choose organic food products in both countries are as follows: "It provides me emotional fulfillment," "It enhances my quality of life and security," "It provides fun, pleasure, and enjoyment," "I get a sense of fulfillment and accomplishment," and "It gives me peace of mind and self-respect" (see Table 11).

The results further show that ACV chains are characterized by LOV and HI- and VC-culture values. For the most part, except the ethically driven chain in Finnish data, there are similarities in the ACV chains in both countries. If we look at a specific level, the value "*It enhances my quality of life and security"* in Pakistan and the HI value, "It provides fun, pleasure and enjoyment" in Finland are consistent with our research assumption, where organic food motivations are

influenced by the chosen cultural values. At the A-C level, consumers in Finland link price to health; however, Pakistani consumers linked taste to healthiness. These two aspects are homogeneous individualistic motives for sustainable food consumption. This can be a reason that, for Pakistani consumers, consuming organic food may be conspicuous and Finns may perceive that the high price signals the high quality of organic food, and thus, that it is better for health (First & Brozina, 2009; Griskevicius et al., 2010). The responses of consumers are largely unified, and therefore, it can be said that they pursue both individualist versus collectivist motives equally in these two countries (Schrank & Running, 2016). However, for the values at the A-C level, the data show HI versus VC congruency, which are not straightforwardly individualist or collectivist (Baumann et al, 2017). The existence of this congruency as symbolizing the HI versus VC association is theoretically, practically and societally important to be acknowledged.

Table 11. Essay 2 Summary

Key content areas	**Description of outcome**
Conceptual rationale	The rationale behind essay 2 is that organic food may appeal to HI- versus VC-specific food choice motivations; therefore the application of the H/V IND-COL cultural typology is appropriate in understanding and capturing organic food choice motivations
Methodological solutions	H/V IND-COL organic food choice motives can be uncovered using means-end chain (MEC) with the help of Kahle's list of values (LOV)
Empirical findings	The MEC method substantiated the existence of a close relationship between the consumer's choice and the HI/VC cultural values consumers seek to satisfy Organic food choice motivations both diverge and converge in HI and VC countries; consumers choose organic food for HI- and VC-specific reasons in both countries
Emerging new understanding	HI and VC consumers choose organic food for HI- and VC-congruent motives Marketers may use the findings from essay 2 to devise their green customer segmentation and marketing strategies wisely instead of relying on outdated IND- versus COL-congruent research findings for advertising and marketing strategies

4.3 Essay 3: Differences in horizontally individualist and vertically collectivist consumers' environmental behavior: A regulatory focus perspective

Essay 3 focused on determining consumers' regulatory focus difference in terms of their cultural values—HI in Finland and VC in Pakistan—in their attitudes and purchase intentions for environmentally friendly products (see Table 12). Based on an extensive literature review, Essay 3 focused on the direct influence of HI and VC cultural values on consumers' attitudes; however, it did not focus on the mediation role of the regulatory focus between HI and VC cultural values and consumers' environmental attitudes. Accordingly, the hypotheses were drawn that HI versus VC values influence RFT orientations (HI-promotion focused and VC-prevention focused), and consequently, influence the environmental attitude and purchase intention of consumers in Finland and Pakistan, respectively. For examining the hypothesized framework of this study, an empirical investigation was conducted in the cities of Islamabad and Rawalpindi in Pakistan and Helsinki and Vaasa in Finland.

The results of this study significantly contribute to the research on understanding the RFT orientation difference in relation to consumers' environmental behavior in the cross-cultural context, that is, HI versus VC cultures. This essay was positioned as the first to conduct such research, revealing interesting and theory-based evidence related to the topic. We were able to find considerable evidence that consumers in Finland/HI are promotion oriented, whereas in Pakistan/VC, consumers are prevention oriented. Accordingly, their environmental attitude is influenced by their specific RFT orientations. Likewise, their purchase intentions are positively influenced by their environmental attitudes.

The interrelationships of HI versus VC, regulatory focus, environmental attitude, and purchase intentions are likely to help researchers and can give important theoretical foundations to understand consumers' environmental behavior across cultures. For instance, unlike conventional products, environmentally friendly products possess attributes that may regulate consumers' emotions and reasons concerning how and why to consume these products. From the findings, it can be concluded that VC-prevention-focused consumers buy environmentally friendly products as a preventive measure, associating environmental benefits with a prevention-focused orientation. On the other hand, HI-promotion-focused consumers are more likely to buy environmentally friendly products that promote and regulate their health so they may achieve the gain of feeling good.

The findings further imply that consumers in VC-prevention-focused cultures consider consuming environmentally friendly products as a means to cope with negative outcomes, and the HI-promotion-focused consumers consume the same products to experience cheerfulness and happiness in helping to protect the environment. Similarly, these arguments are relevant in the present context, and

one could expect these interventions to reflect fruitful theoretical possibilities and provide new avenues of research and practice.

Table 12. Essay 3 Summary

Key content areas	**Description of outcome**
Conceptual rationale	Prevention versus promotion focus orientation of consumers varies across HI versus VC cultures, and these orientations resemble the structure of HI versus VC cultural values; therefore, when primed for environmental products, consumers will show HI-promotion-focused and VC-prevention-focused environmental behavior in Finland and Pakistan, respectively
Methodological solutions	Because the goal is predicting the influence of key cultural variables on the RFT orientations of consumers, and consequently, the influence of RFT on consumers' environmental attitudes and purchase intentions, PLS-SEM is useful for analyzing the hypothesized relationships
Empirical findings	Results of essay 3 show prevention-congruent environmental behavior (associating environmental benefits with prevention-focused orientation) in Pakistan/VC, and in Finland/HI, consumers' environmental behavior is promotion oriented (buying environmentally friendly products that promote and regulate their health so they may achieve the gain of feeling good)
Emerging new understanding	Findings indicate that the H/V IND-COL typology may help in understanding the environmental behavior of a consumer with prevention-focused orientation in VC cultures and promotion-focused oriented environmental behavior in HI cultures The findings may help green companies to serve the HI versus VC consumer segments differently, such as by using HI and VC culturally specific marketing strategies; for example, to influence consumers' purchase patterns, companies can use HI- and VC-congruent themes and messages in green advertisings

4.4 Essay 4: Uncovering the role of horizontal individualism and vertical collectivism in consumers' environmental responsible behavior

This essay brings together core H/V IND-COL specifically HI versus VC cultural values and the environmental responsibility of consumers to analyze their environmental attitude and purchase intentions (see Table 13). Moreover, this study examines the mediating role of the environmental responsibility variable between the relationship of consumers' HI and VC cultural values and their environmental attitudes and purchase intentions. To predict the possible difference in consumers' environmental responsibility, the theoretical grounding of this essay is based on the theory of planned behavior (TPB) (Ajzen, 1991) and H/V IND-COL cultural values.

The results of this essay indicate that the influence of consumers' HI and VC values on their environmental attitude has an insignificant but positive effect on their environmental responsibility. However, consistent with our hypotheses, the influence of consumers' environmental attitudes on their purchase intentions is positive. In addition, environmental responsibility positively influences consumers' environmental attitudes in both countries. Interestingly, the mediating variable role of environmental responsibility between HI and VC and environmental attitude is also positive. The findings of this essay demonstrate that consumers in both countries have a favorable inclination toward environment and feel responsible for protecting it. The insignificant influence of HI versus VC cultural values on consumers' attitudes toward the environment, as well as the indirect role of HI versus VC on environmental attitudes through environmental responsibility, generate research and practice insights for promoting environmental behavior across different cultures.

Table 13. Essay 4 Summary

Key content areas	**Description of outcome**
Conceptual rationale	Consumers in different countries structured as IND and COL may hold different opinions and perceptions regarding their environmental responsibility Consumers' environmental responsibility act as a mediator in the relationship between consumers' HI versus VC cultural values and attitude and purchase intentions relationship
Methodological solutions	Because the goal is to predict the influence of key cultural variables, essay 4 applied the PLS-SEM methodology to test the hypothesized framework substantiated by statistical tests, such as direct and indirect effects using two-factor SEM analysis

Key content areas	**Description of outcome**
Empirical findings	Environmental responsibility plays the full role of a mediator between Finland/HI and Pakistan/VC and the environmental attitude and purchase intention relationship
Emerging new understanding	The findings reveal that HI and VC consumers feel responsibility toward the environment and the mediating role of environmental responsibility can further enhance their environmental attitude and purchase intention of green products The findings indicate that consumers' attitude and purchase intentions toward green products can be better understood and judged by looking into their responsibility toward the environment in HI versus VC cultures This essay generates novel knowledge for theory and marketing practice to consider the role of environmental responsibility in HI versus VC cultures to understand consumers' environmental psychology across IND and COL cultures better

5 DISCUSSION AND CONCLUSIONS

This dissertation work examined the potential variation in cultural values in relation to consumers' sustainable consumption behavior, with a full spectrum for further theory development and foregrounding a practice-based framework aiming to achieve sustainable consumption and production goals. This final chapter discusses theoretical and managerial/practical implications of the results, as well as the limitations and future research recommendations of this dissertation.

5.1 Theoretical implications

In solving environmental problems, research on predicting consumers' sustainable consumption as a collective and individual responsibility has grown consistently in recent decades (Morren & Grinstein, 2016). Earlier research took the view that sustainable consumption either depends on consumers' individual or collective motives in IND versus COL cultures (Grebitus & Dumortier, 2015; Kim & Choi, 2005; Milfont et al., 2006; Soyez, 2012). However, researchers have argued that sustainable consumption is not an economic-rational behavior (Dam & Trijp, 2016). For instance, sustainable products possess egoistic/individual, altruistic/collective, and biosphere/environmental characteristics (Birch et al., 2018). Accordingly, the goal of the present dissertation was to build on the limitations of earlier research. This work took its departure from the pro-self and pro-others sustainable consumption assumption, concluding that consumers can choose sustainable products' for either or both of these, as well as other motives, depending on the features of green products fulfilling their consumption motives in IND versus COL cultures. Accordingly, this thesis offers significant theoretical implications by extending current research knowledge to better understand individual versus collective sustainable consumption ambiguity across cultures.

The main theoretical contribution of this dissertation is the application of H/V IND-COL cultural values compared with other applied cultural frameworks that produce partial perspectives of consumers on sustainable consumption across cultures (De-Groot & Steg, 2008; Gelissen, 2007; Nair & Little, 2016; Oreg & Katz-Gerro, 2007; Park et al., 2007; Soyez, 2012; Yaprak, 2008). This dissertation demonstrates that the H/V IND-COL cultural typology is prominently well suited to explaining cross-cultural sustainable consumption (Cho et al., 2013; Gupta et al., 2019; Price et al., 2014). The theoretical contribution of this thesis can be further translated into two separate sub-contributions. First, to overcome the barriers to environmental behavior (Morren & Grinstein, 2016), the H/V IND-COL cultural typology proved helpful in understanding sustainable consumption behavior differences better than that based on IND versus COL dichotomous research assumptions (Howell, 2013; Laroche et al., 2001; Liobikiene et al., 2016; McCarty & Shrum, 2001; Park et al., 2007). Second, compared with existing

cultural frameworks that have already been applied, this study introduced and successfully applied theoretically and statistically sound H/V IND-COL cultural dimensions in sustainable consumption research (Hofstede, 1980; Schwartz, 1992; Shavitt & Barnes, 2019; Triandis & Gelfand, 1998). Based on the findings, we present the discussion below for existing and future academic debate and enquiry.

Under the two main contributions above, the next section presents and discusses the theoretical implications of this dissertation separately through the four closely related articles. The first two essays, E1 and E2, answer proposition 1, and the latter two, E3 and E4, relate to proposition 2 of the dissertation. E1 established that green brand trust influenced the green behavioral intentions of consumers differently in Pakistan and Finland. E2 concluded that consumers' organic food motives partly connected to their HI and VC cultural values and life goals. In E3, which examined consumers' environmentally friendly behavior, it was established that the self-regulating goals of consumers, such as a promotion-focused orientation, matches the HI cultural value characteristics in Finland, whereas a prevention-focused orientation is congruent with VC cultural values characteristics in Pakistan, and consequently, these attributes are positively related to consumers' environmental attitudes. Finally, E4 showed that environmental responsibility mediates the relationship between consumers' HI versus VC cultural values and environmental behavior.

While discussing the findings of E1, they may indicate that consumers' willingness to pay premium depends on the perceived risks or benefits associated with ecological products to support human health and the environment (Moon & Balasubramanian, 2005). Consumers may refrain from positive word of mouth concerning the green brands because of greenwashing (Chen, Lin, & Chang, 2014). Therefore, for Finnish and Pakistani consumers, trust may be a crucial factor for green brands to depend on. Consumers may also put more trust in familiar products than in green alternatives, which is an important challenge for researchers, as well as marketers of green products (Pickett-Baker & Ozaki, 2008).

The results of E1 further imply that word-of-mouth intentions and willingness to pay more vary across different countries and cultures (Narula & Desore, 2016; Zhang, Li, Cao, & Huang, 2018). Tam and Chan (2017) noted that the association between environmental concerns and behavior is weaker in collectivistic societies because they are high on distrust beliefs, whereas individualistic societies have lower trust orientations, so the association is stronger. In Finland, more weight is placed on personal attributes, such as attitude and preferences (individualistic), while in Pakistan, fitting in with the group and complying with social norms (collectivistic) are emphasized; therefore, the trust–behavioral intentions association is also different in these cultures (Eom et al., 2016). This can occur because how people relate to the natural environment is culturally patterned (Milfont & Schultz, 2016); therefore, these cultural values play a crucial role in determining consumers' behavioral intentions toward green products in Finland and Pakistan. For instance, Pakistani consumers high in collectivism and Finnish

consumers high in individualism (Hofstede, 1980) may associate different meanings with the items when they choose green products. In this situation, individualism/collectivism cultural values (Hofstede's 1980) may have an essential role in the formation of the green brand trust–behavioral intentions association (Erdem, Swait, & Valenzuela, 2006).

E1 indicates that the potential disconnection of consumers' trust with their word-of-mouth intentions and willingness to pay premium can also be different in Pakistan because green products may not fulfil their vertically collectivistic needs, and thus, they fail to serve the purposes that are compatible with their cultural values. In contrast, in Finland, which is a horizontally individualistic society, green brands may not fulfil HI-compatible needs or reasons for using green products, such as providing independence and individual gratification, so Finns will not want to pay more; consequently, green white brands will fail to win their trust. The difference of this phenomenon in individual versus collectivistic cultures points to the need for further inquiry into cross-cultural consumer psychology concepts for understanding consumers' responses to environmental issues. Accordingly, this dissertation suggests that, culture-specific beliefs and reasons to buy green products, the behavioral reasons theory may be useful in tandem with the H/V IND-COL cultural values typology (Park, Cho, Johnson, & Yurchisin, 2017; Westaby, 2000) in future research on the topic.

The second essay (E2) of this thesis concluded that consumers' motives for choosing organic food products are different in accordance with their HI and VC cultural values (Triandis & Gelfand, 1988). The results of E2 supported the second objective of this thesis, showing that the end states consumers want to attain when buying organic food products are both individual and collective; furthermore, there are both social and environmental motives in IND and COL cultures. The similarity in the attributes and consequence chains between Pakistan and Finland justify the earlier research suggestion that, based on a relational perspective of caring for each other in individualistic and collectivistic cultures, consumers' environmental actions can be similar and cannot be straightforward IND or COL (Baumann et al., 2017; Schrank & Running, 2016; van Zomeren, 2014).

In light of the findings from E2, this thesis establishes two theoretical arguments. First, one may conclude that it is untrue that sustainable consumption is based on pro-self or pro-other reasons in individualistic and collective societies. For instance, Finnish and Pakistani consumers associate meanings that represent their HI versus VC cultural characteristics with choosing organic food products. Second, the findings further elaborate that consumers choose organic food for sustaining local agriculture and environmental protection motives in HI versus VC cultures. This means that consumers in HI and VC cultures are willing to take responsibility for the environmental impact of their purchases (Gifford & Nilsson, 2014; Quazi et al., 2016). By buying these products, they contribute to minimizing the hazardous effects on people and maximizing the long-term benefits for the environment and societies (Autio et al., 2009; Webb et al., 2008).

Consumers' reactions to the attributes associated with sustainable products can also differ depending on matching one's regulatory-focused orientation (Bullard & Manchanda, 2013). Based on findings of E3, the current thesis contributes to and extends existing knowledge about how regulatory focused motivation relates to environmental behavior (Chen et al., 2015; Miniero et al., 2014) across different cultures (Kareklas et al., 2012; Onwezen et al., 2014). For instance, this thesis successfully identified a promotion-focused regulatory fit in Finland/HI and prevention-focused regulatory fit in Pakistan/VC (Bu et al., 2013; Shavitt et al., 2009). Assuming the regulatory focus goals of individuals in individualistic or collectivistic cultures are promotion or prevention focused only in determining environmental behavior may be contextually and methodologically desirable, but in general, such findings may limit the specificity of relevant consumer goals that are ingrained in their horizontal and vertical cultural characteristics. Therefore, this dissertation negates the assumption that promotion-focused individuals belong to individualistic/independent cultures while prevention-focused individuals are from collectivist/interdependent cultures (Chen et al., 2015; Chen et al., 2005; Kareklas et al., 2012; Lee et al., 2000), and that this interplay seems to be strong within and across cultures characterized as individualistic or collectivistic (Chen et al., 2005). Although this line of research has significant implications for sustainable consumer research, this thesis extends the current knowledge by showing that a regulatory focus orientation can fit the H/V IND-COL cultural typology, specifically, with HI versus VC cultural values.

The results of E3 demonstrate that the features of environmentally friendly products may fulfil HI-promotion-focused purposes of consumers in Finland, whereas in Pakistan, the same products fulfil VC-prevention-focused purposes. Unlike conventional products, the diverse positive features of green products may increase the likelihood of consuming these products for several regulatory goals. Considering the view that environmentally friendly behavior results in good feelings in the consumer in an HI versus VC compatible goal pursuit strategy (Higgins, 2012), this dissertation concludes that HI-culture consumers buy environmentally friendly products to achieve gains like a healthy life, an ideal state of mind, satisfaction, and aspirations. HI consumers may hope that, after achievement of such gains, their actions will contribute to protecting the environment. However, VC consumers may buy these products to prevent problems caused by environmental damage, pollution, and their consumption patterns. In the view of VC consumers, green product purchases may save them and their loved ones from such losses. Demonstrating the regulatory fit effect in HI and VC cultures, this study concludes that consumers in these cultures rely on their regulatory focus as a filter, constructing their green product preferences in relation to their cultural values.

Given the green product features serving different consumption goals, the strategy of goal attainment being reluctant or eager as a green consumer in VC or HI cultures may depend on how green products features serve or fulfil their regulatory goals. Aaker and Lee (2006) demonstrated that, among people who experience

regulatory fit, their attitudes toward a product—whether negative or positive—become stronger, thereby strengthening their purchase decisions and judgements. Accordingly, in the context of environmental products, HI versus VC cultural values strengthened consumers' promotion-oriented judgements in Finland and prevention-oriented judgements in Pakistan.

For further theory development, this thesis puts forward its findings that the stimuli/green products address consumers' HI versus VC cultural dispositions, indiscriminately activating their promotion-focused and prevention-focused orientations, and this whole process is directionally opposite to the effect of the broad cultural values of IND versus COL on green product evaluations through consumers' regulatory focus. These issues may require additional inquiry for meeting the full potential of regulatory fit in sustainable consumption research across H/V IND-COL cultures. For instance, consumers may achieve physical and psychological wellbeing from using environmental products differently in H/V IND-COL cultures, and their RFT orientation may help them achieve those benefits more easily. By doing this, the condition of consumers' physical shape, mental health, and emotional status may improve substantially. The existence of H/V IND-COL-RFT congruency underlies different environmental behaviors across IND versus COL cultures, thereby opening new avenues of research to go further and test this phenomenon, incorporating other psychological models like the multi-psychological model of wellbeing (Ryff & Keyes, 1995).

This thesis goes further in solving the inconsistency of sustainable consumption across cultures (E4). Consistent with the suggestions of earlier studies, this dissertation highlights the role of culture in the importance of environmental responsibility (Dagher & Itani, 2014; Schultz, 2002), especially in individualistic versus collectivistic cultures (Hanson-Ramussen & Lauver, 2018). For instance, the cultural values of HI versus VC positively influence consumers' environmental responsibility and purchase intentions. However, differing from the past findings, the cultural values have not predicted consumers' environmental attitude (Paco & Rodrigues, 2016; Zabel, 2005). These findings may suggest key insights into environmental action across cultures. For instance, HI versus VC consumers' segments are committed to solving environmental problems in terms of their lifestyle and purchase changes in a responsible way (Follows & Jobber, 2000; Kumar & Ghodeswar, 2015). Moreover, HI and VC consumers feel equally responsible for protecting the environment, and their environmental responsibility is deeply rooted in HI and VC cultural values, which indirectly shape their environmental behavior. In this situation, beyond the individual and collective levels, HI versus VC cultural values may further clarify the understandings of existing research about consumers' responsibility for action against minimizing environmental damage (Clump, Brandel, & Sharpe, 2002; Ramanaiah et al., 2000; Yu et al., 2017).

One may say that vertical collectivist and horizontal individualistic consumers' environmental behaviors strengthen due to knowledge that their unsustainable

activities harm the environment. This argument is consistent with earlier research finding that VC oriented consumers are concerned about the environment (Waylen et al., 2012) and HI-oriented consumers favor nutritional practices (Torres & Perez-Nebra, 2007). The implication is that, for individuals in these cultures, when evaluating whether they are responsible for protecting the environment, their sense of responsibility activates, indirectly driving their environmental attitudes and intentions. Providing theoretically interesting perspectives to core understandings of cross-cultural sustainable consumption research, HI and VC cultural values may facilitate the prerequisite conditions for this relationship that can explain consumers' stance on environmental attitude, and purchase intentions via environmental responsibility (Miniero et al., 2014).

Regarding the insignificant influence of HI and VC on environmental attitudes, this may also have theoretical implications. For instance, the structure of environmental attitude is a complex mix of components; therefore, HI and VC consumers may face difficulty in interpreting their environmental attitudes. Such consumers may avoid investing time and effort in green consumption activities. As Milfont and Duckitt (2010) state, an environmental attitude is not straightforward in nature, but rather, it is multidimensional and comprises cognitive, affective, and behavioral components. Being green may require consumers to align their existing habits and lifestyle with those components. Larson and Kinsey (2019) further highlight that environmental attitudes of consumers from countries with distinctive power distance, individualism, or indulgent cultures tend to differ from those of consumers in other countries.

Contributing to the current research, this dissertation suggests that the environmental attitude is not unidimensional; instead, it may comprise multidimensional factors, and as a result, it may be distinctively connected to HI versus VC cultural values of consumers and their needs. Because horizontal and vertical cultural values represent different characteristics of consumers in IND versus COL cultures (Shavitt et al., 2006), this dissertation points toward further inquiry on the multidimensional structure of environmental attitudes through the lens of motivational theories. Self-determination theories can help solve this paradox. For instance, the basic psychological needs theory posits that the motivation and behavior of consumers is shaped by the satisfaction of self-determined needs for autonomy, competence, and relatedness (Ryan & Deci, 2000); thus, it may better capture consumers' environmental attitude differences along with H/V IND-COL cultural values across cultures.

5.2 Practical implications

The main aim of this dissertation was filling a number of research gaps related to how differences in cultural values play a role in the sustainable consumption choices of consumers across cultures. This thesis employs the H/V IND-COL cultural values perspective for answering the question of how consumers'

psychological bases of their environmental behavior vary across HI/Finnish and Pakistani/VC cultures. Leveraging the connection between consumers' HI versus VC cultural-values, environmental behavior, and consumer psychology, this study offers significant practical implications.

This study identified two types of consumers, those who choose environmentally friendly products for HI-culture-compatible reasons, such as being unique and self-reliant, and consumers preferring environmentally friendly products for VC-culture-congruent motives, such as in-group status and submission to groups. This dissertation concludes that, unlike the dominant cross-cultural sustainable consumption research's assumption, which views consumers' sustainable consumption motives as individualistic or collectivistic (Laroche et al., 2001; McCarty & Shrum, 2001; Park et al., 2007; Soyez, 2012), considering HI- versus VC-congruent sustainable behavior may be a prerequisite for the development of successful cross-cultural green marketing and advertising strategies (Cho et al., 2013). Companies involved in production and manufacturing of environmentally friendly products in Finland and Pakistan may adopt the practical implications given below for successful green product positioning and consumer segmentation strategies.

Based on the findings of E1, this thesis provides reasons to understand how green white goods manufacturers in Finland and Pakistan should pay attention to the upturn in consumers' perceptions of green brands' performance and reputations. In recent years, consumers' environmental demand for sustainable products has been gradually increasing, and customers are making purchase decisions based on their sense of feeling right and wrong in protecting the environment. Green brands symbolize the values of a company because they give meaning to a product as different and unique, supported by claims to protect the environment. In this situation, green products must go above and beyond to provide something that is true in the eyes of such cautious and conscious consumers.

The results of E1 further suggest to companies that, in this volatile era of social media, consumers hear the latest insights and share their consumption experiences with peers and other people at the national level and beyond national boundaries. The purchase decisions of such consumers may be highly influenced by their social network interactions. These consumers are not easy to mislead in terms of fake claims of commitments to the environment. In this regard, in using social media marketing and advertising, especially in the cross-cultural context, both local and international green brands must reassure such consumers that they are going beyond talking the talk, and in fact, are walking the walk (Minton et al., 2012). They can do this by elucidating how green companies align with the cause of environmental protection and what approaches they have adopted for contributing to such issues; looking to the future, they must assume responsibility for environmental protection and sustainability. One way of winning consumers' trust in HI versus VC cultures is by using green ads to influence their attitudes toward green products. The message themes and frames must not be based on

falsehood, but instead, they must communicate the commitment of green brands toward protecting the environment. In this situation, the companies' green ads should not run ahead of their product performances. Accordingly, presenting the trustworthiness of a green product to consumers may increase the green brand credibility. Authentically integrating sustainability into green brands will diminish consumers' skepticism (Mohr, Eroglu, & Ellen, 1998), which may lead to high recognition in terms of positive green word of mouth, willingness to pay premium, and purchase intentions.

Conversely, the environmental narrative cannot be successful if marketers ignore culturally relevant responses to their green brands. Companies may build their brand equities by imbuing cultural characteristics into their green brand extensions (Allen et al., 2008; Torelli et al., 2010). A green brand extension serving culturally specific needs may be perceived by consumers as being more trustworthy than a generic equivalent. For instance, most consumers may buy green brands to acquire associated cultural benefits and goals, such as achieving self/individual and family/collective benefits. Therefore, when deciding to buy green products, consumers may face a struggle between their self-versus-collective interests (Tam & Chan, 2018). This thesis further concludes that the representation of consumers' green goals are different in societies with high power distance and hierarchy (vertical collectivism) and high equality and uniqueness (horizontal individualism) (Shavitt & Barnes, 2019). The translation of such consumers' attitudes into actual green behavior may not depend on pre-existing patterns of pro-self or pro-others green consumption, but instead, may rest on how green products serve their HI and VC culturally congruent needs and goals. In this situation, green companies should not rely on IND versus COL green marketing and advertising strategies; instead, they should use HI- and VC-congruent green marketing and advertising strategies to translate their attitudes to real green purchase behavior (Antonetti & Maklan, 2015; Griskevicius et al., 2010). Marketers' ability to make green brands conveying the distinct HI and VC needs of consumers may appeal to them better. Accordingly, companies may achieve an edge over competitors if their green products appeal to consumers' HI- versus VC-specific needs.

The second practical implication of the thesis emerges from E2. Building on the arguments of how to spread organic food consumption globally, this thesis identified a number of motives driving organic food choices of consumers of Finland/HI and Pakistan/VC that may help marketers in several ways. For instance, the key challenges to marketers when marketing organic food products these days are how to design strategies and policy measures across cultures (Nasir & Karakaya, 2014). Utilizing the findings from E2, one approach that is regarded to deliver effective consumer response to organic food is the use of culturally adapted advertising by marketers (Hornikx & O'Keefe, 2009). In the case of Finland, advertising appeals communicating the health, environmental, and social consciousness benefits, as well as justifying the price as an indicator of the good quality of organic food and helping the local farmers to grow food that is more

organic, can be vital for the success of sustainable brands. In the case of Pakistan, green advertising appealing to consumers may suggest that organic food not only tastes good but also is good for health, and the environmental friendliness of organic food carries healthy living and satisfaction of life to one's family; such strategies may be more persuasive for these consumers.

Expanding beyond marketing strategies using fundamental classifications of individualism versus collectivism, HI- versus VC-specific organic food motives may help marketers to segment consumers according to how hierarchy and power values pattern sustainable consumption (Shavitt & Barnes, 2019). Producers and marketers of those products may inform consumers by instilling self-expression and uniqueness messages in HI cultures and more VC messages reflecting their power and status cultural orientations (Torelli et al., 2012). HI versus VC consumers are segments that are being addressed poorly by firms using IND-COL marketing and advertising strategies. As organic food is different from general food, the branding effects of these products on consumers are different from those of conventional food products (Ryan & Casidy, 2018). When conveying personalized view of their products as per HI versus VC cultural values of consumers, organic food brands may reap positive benefits in terms of the market share, product diffusion and adoption, and competitive advantage. The HI- versus VC-specific green advertising may yield a positive response to organic products to be purchased and consumed for reasons like being unique and trendy in Finland or respected and highly admired by others in Pakistan. Organic brands should also consider using a medium and source to advertise the associated benefits of organic food by marketers in HI and VC countries, which may receive different response from consumers. In addition, promoting organic products on social media using celebrity advertising, such as social media influencers with HI- and VC-congruent cultural values, may have a different impact on consumers' intention to buy organic products than conventional media and sources.

It was found that HI/Finnish consumers experience a promotion regulatory fit, whereas Pakistani/VC consumers are prevention oriented (E3). These findings demonstrate the necessity of creating advertising and marketing strategies matching the HI versus VC cultural value–based regulatory fits of the consumers (Pula et al., 2014). For instance, marketers may develop advertising appeals indicative of HI cultural characteristics and promotion-regulatory focus orientation in Finland. Marketers may use HI-promotion-focused green messages to convince Finns to be unique and self-reliant, thereby achieving the promotion-focused goals of an ideal self, aspirations, and achievements in terms of buying and consuming environmentally friendly products. By doing this, marketers may convince HI consumers that buying green products will help in achieving gains related to health and healthy lifestyles. In addition, messages communicating the positive effects of their sustainable consumption may help achieve gains and accomplishments of protecting the environment. Messages ingrained in the promotion-focused orientations of HI consumers will be perceived more easily and

have a stronger effect on consumers' environmental attitudes and purchase intentions.

In Pakistan/VC, prevention-focused messages may positively trigger consumers' intentions to buy green products. VC consumers may feel a moral duty to protect the environment for the sake of protecting their families from environmental effects (Miniero et al., 2014). Advertisements that contain messages portraying the advantages of green products in preventing losses to the families and the loved ones may be more appealing to consumers in Pakistan. Pakistanis may respond positively to messages depicting them as change agents and opinion leaders, so others will follow their example. Using their positive image, such consumers may positively demonstrate to others that how sustainable consumption will help them prevent environmental problems for people, the community, and their loved ones. Certain messages can be effective for influencing consumers' intentions to buy environmentally friendly products, such as messages stating that individuals should avoid eating food grown using toxic chemicals and genetic modification, promoting community environmental programs, showing that littering has adverse effects on people's health, and clarifying the financial benefits of reducing, recycling, and reusing for families.

This thesis observed that HI versus VC has no effect on environmental attitudes; however, the mediating effect of environmental responsibility was found to be positive (Fraj & Martinez, 2007; Paco & Rodrigues, 2016) in the relationship between HI/VC and environmental attitudes (E4). It may be that HI and VC cultural consumers have not shown positive environmental attitudes because of the following: a) they find it difficult to change their learned habitual patterns of consumption or b) they do not see any visible benefit to confer to the environment when becoming a pro-environmentalist. In this regard, it is important for green marketers to understand why it is not easy for consumers to be green, and thus, why it is difficult to accommodate this behavior into their existing learned consumption patterns and commitments. Another important factor can be that going green may open new spaces of action, which may seem unfamiliar to consumers when it comes to becoming a competent pro-environmental consumer.

When introducing green products in HI versus VC cultures, marketers should use advertising appeals showing that it is easy to be green and environmentally friendly products possess attributes that are useful for the health of consumers and their families, and certainly to the environment and the planet. Marketers should not try to influence consumers by just highlighting the economic benefits, but instead, they should use environmental and ethical claims to influence consumers' willingness to buy environmentally friendly products. Consumers' social environment affects their consumption patterns. To attract consumers, marketers may use social identification in green advertisements in VC cultures (Bartels & Reinders, 2010). Regarding Finland/HI, marketers need to embed HI-congruent content in green advertising, such as using uniqueness and self-reliance appeals and social representation appeals (Backstrom, Pirttila-Backman, & Turila, 2003).

5.3 Limitations and future research

Despite the theoretical and practical implications of this thesis, a number of limitations are also identified that may offer avenues for future research. For example, consumers' motives to choose environmentally friendly products may depend on many factors, and sustainable consumption decision making represents a complex set of cognitive and affective factors. Therefore, one cannot overgeneralize the results of the quantitative method to all populations (E1, E2, E3, and E4). In this case, the application of a qualitative method or mixed-method approach cannot be ignored.

The data collection technique and sample sizes in the individual essays of this thesis may also prevent us from generalizing the results on consumers' environmental attitudes and behaviors to the overall population (Larson & Kinsey, 2019). To address this limitation, future studies can collect data using different method such as random sampling technique; as well choose larger sample sizes, which would give a strong basis to generalize the results. Another limitation is that the hypotheses in the essays were tested with cross-sectional survey data, which cannot determine the dynamic change (if any) of the selected variables in the different stages. Therefore, future studies can collect longitudinal data to address this limitation. Another limitation of this thesis is not establishing measurement invariance across samples (E1, E3 and E4). Researchers may use multi-group modelling strategies such as multiple-group confirmatory factor analysis (MGCFA) in future studies (Kim, Cao, Wang, & Nguyen, 2017).

The selection of countries can also be a limitation of this thesis. For instance, the countries under study are different with respect to size, economic development, literacy, geographical location, and diversity of the populations. Controlling for such factors, future studies can choose more than two countries characterized as VC and HI for examining the motives of sustainable consumption in more detail. It may help to know the cultural values' uniformity or difference, which can facilitate understanding consumers' reasons for choosing sustainable products better. The statistical methods for testing and analyzing data were also different in every essay of this thesis. Covariance-based (CB)-SEM was applied in E1 because the goal was to test the TRA together with green brand factors and green behavioral intentions. In E2, the goals were exploratory; therefore, hard laddering and MECanalyst software were used for analyzing the data. Future studies may use soft laddering to collect data (Russel et al., 2004). In E3 and E4, PLS-SEM was used because the goal was to predict the influence of key target variables on consumers' environmental attitudes and purchase intentions (Hair, Ringle, & Sarstedt, 2011). Future studies may incorporate either CB-SEM or PLS-SEM, depending on the context and goals of the research studies.

Since sustainable consumption decision making is complex and involves a variety of sustainable behaviors (Moisander, 2007; Thogersen & Olander, 2003), there may be several other factors responsible for direct, mediating, moderating, or

indirect influence on green brand perceptions and behavioral intentions of consumers (E1). The factors may be social, environmental, technological, and behavioral, and they may be less or more important to consumers. Future research may examine the role of such factors. Another limitation is concerned with assuming the selected countries have VC (Pakistan) and HI (Finland) cultures (E2, E3, and E4). Although VC is associated with Pakistan (Imam, 2013) and HI with Finland (Khatri et al., 2005), more observations are required to be collected, including actual measurements of VC/HC, and HI/VI orientations.

The sociodemographic profiles of the Pakistani and Finnish samples also vary, which can be a limitation (E2, E3, and E4). These factors can have a pivotal role in determining consumers' organic food attitudes and purchase behavior (Bravo, Cordts, Schulze, & Spiller, 2013). Future studies may carry out research controlling for consumers' demographic differences, considering whether there is any variance in consumers' purchasing of green products across cultures. Since everyone is experiencing the consequences of environmental damage, regardless of gender, age, income, and education difference, and environmental damage has been occurring for many decades, an important future research avenue can be examining individuals' connection to nature and responsibility for the environment from the perspective of consumers' socio-demographics and generational differences across H/V IND-COL cultures.

One may say that the results have been more efficiently explained by the differences in the level of incomes than cultural life values (E2). Earlier research produced evidence supporting the influence of cultural values on consumers' organic and functional food choices more than their income levels (Mullie et al., 2009; Ruiz de Maya, Lopez-Lopes, & Munuera, 2011). Prior food knowledge or familiarity varied in both samples, as this aspect was not controlled for, which can be a limitation and affect the findings (E2). Although, at the beginning of the investigations, similar information about the definition of organic foods was given to the respondents in both countries, familiarity with the product may have influenced the consumers' product perceptions (Fischer & Frewer, 2009). Researchers may check the potential bias, if any, in similar research on the topic in the future.

Another limitation may have been using the selected methodological approach (E2), which typically triggers conscious processing in study participants but may not reveal socially disapproved of motivations, such as status and impression making (Rucker, Galinsky, & Dubois, 2012). Future studies may follow the methodological triangulation principles in addressing this limitation. The results were produced using only one form of sustainable food consumption, which can also be a limitation to the findings of this thesis (E2). To address these limitations, reflecting on other forms of consumption, such as fair trade (Kimura et al., 2012), local foods (Memery et al., 2015), consuming less (Brooks and Wilson, 2015), green consumption on social media (Bedard & Tolmie, 2018), or ethical consumption in

the digital realm (Humphery & Jordan, 2018) in various cultures remains another open future research avenue.

Consumers may also consume environmentally friendly products to achieve different goals in terms of associated prevention versus promotion benefits across different cultures (E3). Accordingly, regulatory focus conditions, if manipulated using other green or non-green products, may produce different results (E3). The insignificant influence of HI versus VC on environmental attitude generates an opportunity for future research (E4). For instance, consumers' perceived effectiveness (Wesley, Lee, & Kim, 2012) may play an important role in building consumers' attitudes toward environmentally friendly products. Future research may also examine the influence of peers on consumers' green decision-making (Lee, 2008). How can peers pressure consumers into green actions that they do not normally engage in? Are they encouraged to buy green or not?

Further research can examine differences in the sustainability goals of consumers, especially in countries characterized by values like VI that is high on competitiveness and HC that is high on interdependence. Alternatively, due to the associated benefits of green products for the planet and social and human wellbeing, would consumers in these cultures consider such products for similar purposes? Another future research suggestion can be that consumers with HI versus VC cultural values may react differently in terms of their green trust and green behavioral intentions in relation to green product performance because of the unethical conduct of companies, such as greenwashing (Dutta & Pullig, 2011; E1). In this regard, future studies may investigate the reaction of consumers toward greenwashing practices of companies through the lens of H/V IND-COL cultural values (Jian, Zhou, & Zhou, 2019; Torelli et al., 2010).

Living in an era of digital disruption and technological advancement, environmental crises are of high importance for companies and policymakers. How consumers personally perceive their actions and purchase patterns in terms of their rights and responsibilities to stop further damage to the environment is of high importance. In this situation, green companies need to revisit and redefine their marketing strategies, as well as their business models, to cater to the needs of technologically modern, well-educated consumers.

One cannot make a strategy and policy in isolation; the concepts of a circular and sharing economy have changed today's consumption and production models. Artificial intelligence, robotics, mobile applications, and the internet of things (IoT) are new trends that give consumers control over their consumption choices. In this regard, green products and services may generate different consumer response across H/V IND-COL cultures. From the direction of this perspective, future research may be conducted on cues that raise consumers' concerns, influencing their green purchase intentions and motivating them to save the planet and its species (Antonetti & Maklan, 2015). Overall, predicting sustainable behaviors across H/V IND-COL cultures is in its infancy (Cho et al., 2013; Gupta

et al., 2019), so further inquiry is needed that adopts the lens of consumer psychology. This will help delineate cross-cultural discrepancies in consumers' sustainable consumption, helping to achieve sustainable development goals of production and consumption successfully.

References

Aaker, J.L. and Lee, A.Y. (2001). 'I' seek pleasures and 'we' avoid pains: the role of self-regulatory goals in information processing and persuasion, *Journal of Consumer Research*, 28(1), 33–49.

Aaker, J.L. and Lee, A.Y. (2006). Understanding regulatory fit, *Journal of Marketing Research*, 43(1), 15–19.

Adger, W. N., Barnett, J., Brown, K., Marshall, N., & O'brien, K. (2013). Cultural dimensions of climate change impacts and adaptation. *Nature Climate Change*, *3*(2), 112.

Aertsens, J., Verbeke, W., Mondelaers, K. and Van Huylenbroeck, G., (2009). Personal determinants of organic food consumption: a review. *British Food Journal*, 111(10). 1140-1167.

Ajzen, I. & Fishbein, M. (1980). Understanding Attitudes and Predicting Social Behavior. Prentice-Hall, Englewood Cliffs, NJ.

Ajzen, I. (1991). The theory of planned behavior, *Organizational Behavior and Human Decision Processes*, 50(2), 179–211

Albino, V., Balice, A., & Dangelico, R. M. (2009). Environmental strategies and green product development: an overview on sustainability-driven companies. *Business Strategy and the Environment*, *18*(2), 83-96.

Allen, M. W., Gupta, R., & Monnier, A. (2008). The interactive effect of cultural symbols and human values on taste evaluation. *Journal of Consumer Research*, *35*(2), 294-308.

Al-Swidi, A., Huque S.M.R., Hafeez, M.H. and Shariff, N.M.M. (2014). The role of subjective norms in theory of planned behavior in the context of organic food consumption. *British Food Journal,* 116(10), 1561-1580.

Anderson, J.C. and Gerbing, D.W. (1988). Structural equation modeling in practice: a review and recommended two-step approach, *Psychological Bulletin*, 103(3), 411–423.

Ando, K., Ohnuma, S., Blöbaum, A., Matthies, E., & Sugiura, J. (2010). Determinants of individual and collective pro-environmental behaviors: Comparing Germany and Japan. *Journal of Environmental Information Science*, *38*(5), 21-32.

Antonetti, P., & Maklan, S. (2015). How Categorisation Shapes the Attitude–Behavior Gap in Responsible Consumption. *International Journal of Market Research*, *57*(1), 51-72.

Arli, D., Tan, L. P., Tjiptono, F., & Yang, L. (2018). Exploring consumers' purchase intention towards green products in an emerging market: The role of consumers' perceived readiness. *International Journal of Consumer Studies*, *42*(4), 389-401.

Arpaci, I., (2017). Culture and nomophobia: The role of vertical versus horizontal collectivism in predicting nomophobia. *Information Development*, 35(1), 96-106.

Ashraf, A.R., Razzaque, M.A. and Thongpapanl, N.T. (2016). The role of customer regulatory orientation and fit in online shopping across cultural contexts, *Journal of Business Research*, 69(12), 6040–6047.

Ashraf, R., & Merunka, D. (2017). The use and misuse of student samples: An empirical investigation of European marketing research. *Journal of Consumer Behavior*, *16*(4), 295-308.

Aslihan Nasir, V., & Karakaya, F. (2014). Consumer segments in organic foods market. *Journal of Consumer Marketing*, *31*(4), 263-277.

Autio, M., Heiskanen, E., & Heinonen, V. (2009). Narratives of 'green'consumers—the antihero, the environmental hero and the anarchist. *Journal of Consumer Behavior: An International Research Review*, *8*(1), 40-53.

Avnet, T. and Higgins, E.T. (2006). How regulatory fit affects value in consumer choices and opinions, *Journal of Marketing Research*, 43(1), 1-10.

Bäckström, A., Pirttilä-Backman, A. M., & Tuorila, H. (2003). Dimensions of novelty: a social representation approach to new foods. *Appetite*, *40*(3), 299-307.

Barbarossa, C., & Pastore, A. (2015). Why environmentally conscious consumers do not purchase green products: a cognitive mapping approach. *Qualitative Market Research: An International Journal*, *18*(2), 188-209.

Barbarossa, C., Beckmann, S. C., De Pelsmacker, P., Moons, I., & Gwozdz, W. (2015). A self-identity based model of electric car adoption intention: a cross-cultural comparative study. *Journal of Environmental Psychology*, *42*, 149-160.

Barbarossa, C., De Pelsmacker, P., & Moons, I. (2017). Personal values, green self-identity and electric car adoption. *Ecological Economics*, *140*, 190-200.

Bartels, J., & Reinders, M. J. (2010). Social identification, social representations, and consumer innovativeness in an organic food context: A cross-national comparison. *Food Quality and Preference*, *21*(4), 347-352.

Baumann, S., Engman, A., Huddart-Kennedy, E., & Johnston, J. (2017). Organic vs. local: Comparing individualist and collectivist motivations for "ethical" food consumption. *Canadian Food Studies/La Revue canadienne des études sur l'alimentation*, *4*(1), 68-86.

Bedard, S. A. N., & Tolmie, C. R. (2018). Millennials' green consumption behavior: Exploring the role of social media. *Corporate Social Responsibility and Environmental Management*, *25*(6), 1388-1396.

Bennett, P. D., & American Marketing Association. (1995). Dictionary of marketing terms.

Beugelsdijk, S., Kostova, T., & Roth, K. (2017). An overview of Hofstede-inspired country-level culture research in international business since 2006. *Journal of International Business Studies*, 48(1), 30-47.

Bhatnagar, N. and McKay-Nesbitt, J. (2016). Pro-environment advertising messages: the role of regulatory focus, *International Journal of Advertising*, 35(1), 4-22.

Birch, D., Memery, J. and Kanakaratne, M.D.S., (2018). The mindful consumer: Balancing egoistic and altruistic motivations to purchase local food. *Journal of Retailing and Consumer Services*, 40, 221-228.

Black, I. R., & Cherrier, H. (2010). Anti-consumption as part of living a sustainable lifestyle: daily practices, contextual motivations and subjective values. *Journal of Consumer Behavior*, *9*(6), 437-453.

Bonera, M., Corvi, E., Codini, A., & Ma, R. (2017). Does Nationality Matter in Eco-Behavior? *Sustainability*, *9*(10), 1694.

Bonett, D. G., & Wright, T. A. (2015). Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning. *Journal of Organizational Behavior*, 36(1), 3–15.

Bravo, C. P., Cordts, A., Schulze, B., & Spiller, A. (2013). Assessing determinants of organic food consumption using data from the German National Nutrition Survey II. *Food quality and Preference*, 28(1), 60-70.

Brooks, J. S., & Wilson, C. (2015). The influence of contextual cues on the perceived status of consumption-reducing behavior. *Ecological Economics*, *117*, 108-117.

Bu, K., Kim, D. and Son, J. (2013). Is the culture-emotion fit always important? Self-regulatory emotions in ethnic food consumption, *Journal of Business Research*, 66(8), 983–988.

Bullard, O., & Manchanda, R. V. (2013). Do sustainable products make us prevention focused?, *Marketing Letters*, *24*(2), 177-189.

Calder, B. J., Phillips, L. W., & Tybout, A. M. (1982). The concept of external validity. *Journal of Consumer Research*, *9*(3), 240-244.

Carrington, M. J., Neville, B. A., & Whitwell, G. J. (2010). Why ethical consumers don't walk their talk: Towards a framework for understanding the gap between the ethical purchase intentions and actual buying behavior of ethically minded consumers. *Journal of Business Ethics*, *97*(1), 139-158.

Ceglia, D., de Oliveira Lima, S. H., & Leocádio, Á. L. (2015). An alternative theoretical discussion on cross-cultural sustainable consumption. *Sustainable Development*, 23(6), 414-424.

Chan, R. Y., & Lau, L. B. (2002). Explaining green purchasing behavior: A cross-cultural study on American and Chinese consumers. *Journal of International Consumer Marketing*, *14*(2-3), 9-40.

Cheah, I., & Phau, I. (2011). Attitudes towards environmentally friendly products: The influence of ecoliteracy, interpersonal influence and value orientation. *Marketing Intelligence & Planning*, *29*(5), 452-472.

Chen, C. C., Chen, C. W., & Tung, Y. C. (2018). Exploring the consumer behavior of intention to purchase green products in Belt and Road Countries: an empirical analysis. *Sustainability*, *10*(3), 854.

Chen, F. F., & West, S. G. (2008). Measuring individualism and collectivism: The importance of considering differential components, reference groups, and measurement invariance. *Journal of Research in Personality*, 42(2), 259-294.

Chen, H., Ng, S. and Rao, A.R. (2005). Cultural differences in consumer impatience, *Journal of Marketing Research,* 42(3), 291–301.

Chen, N.H., Lee, C.H. and Huang, C.T. (2015). Why buy organic rice? Genetic algorithm-based fuzzy association mining rules for means-end chain data, *International Journal of Consumer Studies*, 39(6), 692–707.

Chen, Y. S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business ethics*, *93*(2), 307-319.

Chen, Y. S., Lin, C. L., & Chang, C. H. (2014). The influence of greenwash on green word-of-mouth (green WOM): The mediation effects of green perceived quality and green satisfaction. *Quality & Quantity*, *48*(5), 2411-2425.

Chen, Y.-S. & Chang, C.-H. (2012). Enhance green purchase intentions: the roles of green perceived value, green perceived risk, and green trust, *Management Decision*, 50, 502–520.

Chen, Y.-S. (2010). The drivers of green brand equity: green brand image, green satisfaction, and green trust, *Journal of Business Ethics*, 93, 307–319.

Cheung, M. F., & To, W. M. (2019). An extended model of value-attitude-behavior to explain Chinese consumers' green purchase behavior. *Journal of Retailing and Consumer Services*, *50*, 145-153.

Chitturi, R., Raghunathan, R., & Mahajan, V. (2008). Delight by design: The role of hedonic versus utilitarian benefits. *Journal of Marketing*, *72*(3), 48-63.

Cho, Y.N., Thyroff, A., Rapert, M.I., Park, S.Y. and Lee, H.J., (2013). To be or not to be green: Exploring individualism and collectivism as antecedents of environmental behavior. *Journal of Business Research*, 66(8), 1052-1059.

Chryssohoidis, G.M. and Krystallis, A. (2005). Organic consumers' personal values research: Testing and validating the list of values (LOV) scale and implementing a value-based segmentation task. *Food Quality and Preference*, 16(7), 585-599.

Cleveland, M., & Chang, W. (2009). Migration and materialism: The roles of ethnic identity, religiosity, and generation. *Journal of Business Research*, *62*(10), 963-971.

Cleveland, M., & Laroche, M. (2007). Acculturaton to the global consumer culture: Scale development and research paradigm. *Journal of Business Research*, *60*(3), 249-259.

Clump, M. A., Brandel, J. M., & Sharpe, P. J. (2002). Differences in environmental responsibility between materialistic groups. *Psychologia*, *45*(3), 155-161.

Cohen, L., Manion, L., & Morrison, K. (2000). Research methods in education 5th edition. *London, Routledge Falmer*

Collis, J., & Hussey, R. (2013). *Business research: A practical guide for undergraduate and postgraduate students*. Macmillan International Higher Education.

Cooper, C. R., & Schindler, P. S. (2008). Business research methods (10th Ed.). Boston: McGraw-Hill.

Cordano, M., Welcomer, S., Scherer, R., Pradenas, L., & Parada, V. (2010). Understanding cultural differences in the antecedents of pro-environmental behavior: A comparative analysis of business students in the United States and Chile. *The Journal of Environmental Education*, *41*(4), 224-238.

Costa Pinto, D., Nique, W. M., Maurer Herter, M., & Borges, A. (2016). Green consumers and their identities: how identities change the motivation for green consumption. *International Journal of Consumer Studies*, *40*(6), 742-753.

Creswell, J. (2003). Research design: qualitative, quantitative, and mixed methods approaches (2nd ed.). Thousand Oaks, CA: Sage

Croucher, S., Galy-Badenas, F., Jäntti, P., Carlson, E., & Cheng, Z. (2016). A test of the relationship between argumentativeness, individualism/collectivism, and conflict style preference in the United States and Finland. Communication Research Reports, 33(2), 128-136.

Dagher, G. K., & Itani, O. (2014). Factors influencing green purchasing behavior: Empirical evidence from the Lebanese consumers. *Journal of Consumer Behavior*, *13*(3), 188-195.

Dagher, G., & Itani, O. (2012). The influence of environmental attitude, environmental concern and social influence on green purchasing behavior. *Review of Business Research*, *12*(2), 104-111.

Davari, A., & Strutton, D. (2014). Marketing mix strategies for closing the gap between green consumers' pro-environmental beliefs and behaviors. *Journal of Strategic Marketing*, *22*(7), 563-586.

Davies, I. A., & Gutsche, S. (2016). Consumer motivations for mainstream “ethical” consumption. *European Journal of Marketing*, *50*(7/8), 1326-1347.

De Barcellos, M. D., Bossle, M., Perin, M. G., & Vieira, L. (2015). Consumption of Eco-Innovative Food: How Values and Attitudes Drive Consumers’ Purchase of Organics?. *Revista Brasileira de Marketing*, *14*(1).

De Cock, C., & Land, C. (2006). Organization/literature: Exploring the seam. *Organization Studies*, *27*(4), 517-535.

De Groot, J. I., & Steg, L. (2007). Value orientations and environmental beliefs in five countries: Validity of an instrument to measure egoistic, altruistic and biospheric value orientations. *Journal of Cross-Cultural Psychology*, *38*(3), 318-332.

De Groot, J. I., & Steg, L. (2010). Relationships between value orientations, self-determined motivational types and pro-environmental behavioral intentions. *Journal of Environmental Psychology*, *30*(4), 368-378.

De Groot, J.I. and Steg, L., (2008). Value orientations to explain beliefs related to environmental significant behavior: How to measure egoistic, altruistic, and biospheric value orientations. *Environment and Behavior*, *40*(3), 330-354.

De Mooij, M. and Hofstede, G. (2011). Cross-cultural consumer behavior: A review of research findings. *Journal of International Consumer Marketing*, 23(3-4), 181-192.

Denscombe, M. (1998). The good research guide. Buckingham.

Dermody, J., Hanmer-Lloyd, S., Koenig-Lewis, N., & Zhao, A. L. (2015). Advancing sustainable consumption in the UK and China: the mediating effect of pro-environmental self-identity. *Journal of Marketing Management*, *31*(13-14), 1472-1502.

Devi Juwaheer, T., Pudaruth, S., & Monique Emmanuelle Noyaux, M. (2012). Analysing the impact of green marketing strategies on consumer purchasing patterns in Mauritius. *World Journal of Entrepreneurship, Management and Sustainable Development*, *8*(1), 36-59.

do Paço, A., Alves, H., Shiel, C., & Filho, W. L. (2013). Development of a green consumer behavior model. *International Journal of Consumer Studies*, *37*(4), 414-421.

D'Souza, C., Taghian, M., & Khosla, R. (2007). Examination of environmental beliefs and its impact on the influence of price, quality and demographic characteristics with respect to green purchase intention. *Journal of Targeting, Measurement and Analysis for Marketing*, *15*(2), 69-78.

Duclos, R., & Barasch, A. (2014). Prosocial behavior in intergroup relations: How donor self-construal and recipient group-membership shape generosity. *Journal of Consumer Research*, *41*(1), 93-108.

Dunlap, R., Van Liere, K., Mertig, A. & Howell, R. (1992). Measuring endorsement of an ecological worldview: a revised NEP scale. Paper presented in the Annual Meeting of the Rural Sociology Society, PA.

Dutta, S., & Pullig, C. (2011). Effectiveness of corporate responses to brand crises: The role of crisis type and response strategies. *Journal of Business Research*, *64*(12), 1281-1287.

Eden, S.E. (1993) Individual environmental responsibility and its role in public environmentalism. *Environment and Planning*, *25*, 1743-1758.

Elgin, D. (1994). Building a Sustainable Species-Civilization – a challenge of culture and consciousness, in McKenzie-Mohr, D. and Marien, M., ed., (1994) Futures, Special issue, Visions of Sustainability, 26(2), California: Cambridge Millennium Project.

Eom, K., Kim, H. S., Sherman, D. K., & Ishii, K. (2016). Cultural variability in the link between environmental concern and support for environmental action. *Psychological Science*, *27*(10), 1331-1339.

Erdem, T., Swait, J., & Valenzuela, A. (2006). Brands as signals: a cross-country validation study. *Journal of Marketing*, *70*(1), 34-49.

EU, 2001. (European Union), Integrated Product Policy, Green Paper on Integrated Product Policy, Commission of the European Communities, COM 2001, 68 final, Brussels.

First, I. & Brozina, S., (2009). Cultural influences on motives for organic food consumption. *EuroMed Journal of Business*, 4(2), 185-199.

Fischer, A.R.H. & Frewer, L. (2009). Consumer familiarity with foods and the perception of risks and benefits. *Appetite,* 20(8), 576-585.

Fiske, A. P. (1992). The four elementary forms of sociality: framework for a unified theory of social relations. *Psychological Review*, 99(4). 689.

Follows, Scott B. & David Jobber (2000). Environmentally responsible purchase behavior: a test of a consumer model, *European Journal of Marketing*, *34*(5/6), 723-46.

Fornell, C. & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research,* 18(1), 39-50.

Fowler III, A. R., & Close, A. G. (2012). It ain't easy being green: Macro, meso, and micro green advertising agendas. *Journal of Advertising*, *41*(4), 119-132.

Fraj, E., & Martinez, E. (2007). Ecological consumer behavior: an empirical analysis. *International Journal of Consumer Studies*, *31*(1), 26-33.

Fritsche, I., & Häfner, K. (2012). The malicious effects of existential threat on motivation to protect the natural environment and the role of environmental identity as a moderator. *Environment and Behavior*, *44*(4), 570-590.

Gandhi, M., & Kaushik, N. (2016). Socially responsive consumption behavior–an Indian perspective. *Social Responsibility Journal*, *12*(1), 85-102.

Garbarino, E., Lee, J., & Soutar, G. (2010). Materialism and Cultural Orientation: The Role of Vertical-Horizontal Individualism within and across Cultures. In *Materialism and Cultural Orientation: The Role of Vertical-Horizontal Individualism within and across Cultures* (pp. 1-7). University of Canterbury.

Gatersleben, B., White, E., Abrahamse, W., Jackson, T., & Uzzell, D. (2012). Values and sustainable lifestyles. In *Transforming Markets in the Built Environment* (pp. 37-50). Routledge.

Geeroms, N., Verbeke, W. and Van Kenhove, P. (2008). Consumers' health-related motive orientations and ready meal consumption behavior, *Appetite*, 51(3), 704-712.

Gelissen, J., (2007). Explaining popular support for environmental protection, *Environmental Behavior*, 39(3), 392–415

Gentina, E., & Singh, P. (2015). How national culture and parental style affect the process of adolescents' ecological resocialization. *Sustainability*, *7*(6), 7581-7603.

Gifford, R. & Nilsson, A., (2014). Personal and social factors that influence pro-environmental concern and behavior: A review. *International Journal of Psychology*, *49*(3), 141-157.

Gill, J., & Johnson, P. (2002). *Research methods for managers*. Sage.

Gleim, M., & J. Lawson, S. (2014). Spanning the gap: an examination of the factors leading to the green gap. *Journal of Consumer Marketing*, *31*(6/7), 503-514.

González, E. M., Felix, R., Carrete, L., Centeno, E., & Castaño, R. (2015). Green shades: a segmentation approach based on ecological consumer behavior in an emerging economy. *Journal of Marketing Theory and Practice*, *23*(3), 287-302.

Gouvea, R., Kassicieh, S., & Montoya, M. J. (2013). Using the quadruple helix to design strategies for the green economy. *Technological Forecasting and Social Change*, *80*(2), 221-230.

Grebitus, C., & Dumortier, J. (2016). Effects of Values and Personality on Demand for Organic Produce, *Agribusiness*, 32(2), 189-202.

Griskevicius, V., Tybur, J.M. and Van den Bergh, B., (2010). Going green to be seen: status, reputation, and conspicuous conservation. *Journal of Personality and Social Psychology*, 98(3). 392.

Groening, C., Sarkis, J., & Zhu, Q. (2018). Green marketing consumer-level theory review: A compendium of applied theories and further research directions. *Journal of Cleaner Production*, *172*, 1848-1866.

Grubor, A., & Milovanov, O. (2017). Brand strategies in the era of sustainability. *Interdisciplinary Description of Complex Systems: INDECS*, *15*(1), 78-88.

Grunert, K. G., & Valli, C. (2001). Designer-made meat and dairy products: consumer-led product development. *Livestock Production Science*, 72(1-2). 83-98.

Grunert, K.G., Lähteenmäki, L., Boztug, Y., Martinsdóttir, E., Ueland, Ø, Åström, A. and Lampila, P. (2009) 'Perception of health claims among Nordic consumers', Journal of Consumer Policy, Vol. 32, No. 3, pp.269–287.

Guerber, A., Rajagoplan, A., & Anand, V. (2016). The influence of national culture on the rationalization of corruption. In *Crime and Corruption in Organizations* (pp. 163-180). Routledge.

Gupta, S. and Ogden, D.T., (2009). To buy or not to buy? A social dilemma perspective on green buying. *Journal of Consumer Marketing*, *26*(6), 376-391.

Gupta, S., Wencke, G., & Gentry, J. (2019). The Role of Style versus Fashion Orientation on Sustainable Apparel Consumption. *Journal of Macromarketing*, 39(2), 188-207.

Gutman, J. (1982). A means-end chain model based on consumer categorization processes. *Journal of Marketing*, 46(2). 60-72.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, *19*(2), 139-152.

Hall, E.T. (1959). *The Silent Language*, New York: Doubleday

Han, H. (2015). Travelers' pro-environmental behavior in a green lodging context: Converging value-belief-norm theory and the theory of planned behavior. *Tourism Management*, *47*, 164-177.

Hansen, T., Risborg, M. S., & Steen, C. D. (2012). Understanding consumer purchase of free-of cosmetics: A value-driven TRA approach. *Journal of Consumer Behavior*, *11*(6), 477-486.

Hansla, A. (2011). Value orientation and framing as determinants of stated willingness to pay for eco-labeled electricity. *Energy Efficiency,* 4(2): 185–192.

Hansla, A., Gamble, A., Juliusson, A., & Gärling, T. (2008). Psychological determinants of attitude towards and willingness to pay for green electricity. *Energy Policy*, *36*(2), 768-774.

Hansla, A., Gamble, A., Juliusson, A., & Gärling, T. (2008). The relationships between awareness of consequences, environmental concern, and value orientations. *Journal of Environmental Psychology*, *28*(1), 1-9.

Hanson-Rasmussen, N. J., & Lauver, K. J. (2018). Environmental responsibility: millennial values and cultural dimensions. *Journal of Global Responsibility*, *9*(1), 6-20.

Hartmann, P., & Apaolaza-Ibáñez, V. (2012). Consumer attitude and purchase intention toward green energy brands: The roles of psychological benefits and environmental concern. *Journal of Business Research*, *65*(9), 1254-1263.

Hartmann, P., Eisend, M., Apaolaza, V., & D'Souza, C. (2017). Warm glow vs. altruistic values: How important is intrinsic emotional reward in pro-environmental behavior? *Journal of Environmental Psychology*, *52*, 43-55.

Hauge, L. J., Einarsen, S., Knardahl, S., Lau, B., Notelaers, G., & Skogstad, A. (2011). Leadership and role stressors as departmental level predictors of workplace bullying. *International Journal of Stress Management*, *18*(4), 305.

Haught, H.M., Rose, J., Geers, A. and Brown, J.A. (2015). Subjective social status and well-being: the role of referent abstraction, *The Journal of Social Psychology*, 155(4), 356–369.

Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-based Nursing*, *18*(3), 66-67.

Hedlund, T. (2011). The impact of values, environmental concern, and willingness to accept economic sacrifices to protect the environment on tourists' intentions to buy ecologically sustainable tourism alternatives. *Tourism and Hospitality Research*, *11*(4), 278-288.

Heim, E., Wegmann, I., & Maercker, A. (2017). Cultural values and the prevalence of mental disorders in 25 countries: A secondary data analysis. *Social Science & Medicine*, *189*, 96-104.

Hekkert, P., & Schifferstein, H. N. (2008). Introducing product experience. *Product Experience*, 1-8.

Hemmerling, S., Hamm, U. and Spiller, A. (2015). Consumption behavior regarding organic food from a marketing perspective, a literature review. *Organic Agriculture*, 5(4), 277-313.

Henry, W. A. (1976). Cultural values do correlate with consumer behavior. *Journal of Marketing Research*, *13*(2), 121-127.

Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009). The use of partial least squares path modeling in international marketing', in Sinkovics, R.R. and

Heyd, T., & Brooks, N. (2009). Exploring cultural dimensions of adaptation to climate change. *Adapting to climate change: Thresholds, values, governance*, 269-282.

Higgins, E.T. (2012). Regulatory focus theory', Handbook of Theories of Social Psychology, 1, 483–504

Higueras-Castillo, E., Liébana-Cabanillas, F. J., Muñoz-Leiva, F., & Molinillo, S. (2019). The role of collectivism in modeling the adoption of renewable energies: a cross-cultural approach. *International Journal of Environmental Science and Technology*, *16*(4), 2143-2160.

Hines, J. M., Hungerford, H. R., & Tomera, A. N. (1987). Analysis and synthesis of research on responsible environmental behavior: A meta-analysis. *The Journal of Environmental Education*, *18*(2), 1-8.

Hirvelä, S., & Helkama, K. (2011). Empathy, values, morality and Asperger's syndrome. *Scandinavian Journal of Psychology*, *52*(6), 560-572.

Hoffman, A. J. (2010). Climate change as a cultural and behavioral issue: addressing barriers and implementing solutions. *Organizational Dynamics*. 39, 295–305

Hofstede, G. (1980). Motivation, leadership, and organization: do American theories apply abroad? *Organizational dynamics*, 9(1). 42-63.

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage publications.

Hofstede, G., Hofstede, GJ, and Minkov, M. (2010). Cultures and organizations: Software of the mind. *New York, NY: McGraw-Hill.*

Hornikx, J. and O'Keefe, D.J. (2009). Adapting consumer advertising appeals to cultural values a meta-analytic review of effects on persuasiveness and ad liking. *Annals of the International Communication Association*, 33(1), 39-71.

House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W., Gupta, V. and GLOBE associates (2004) Leadership, Culture and Organizations: The GLOBE Study of 62 Nations, Sage: Thousand Oaks, CA.

Howell, R.A., (2013). It's not (just) "the environment, stupid!" Values, motivations, and routes to engagement of people adopting lower-carbon lifestyles. *Global Environmental Change*, 23(1). 281-290.

Hsu, C.L. and Chen, M.C. (2014). Explaining consumer attitudes and purchase intentions toward organic food: contributions from regulatory fit and consumer characteristics, *Food Quality and Preference*, 35(7), 6-13.

Humphery, K., & Jordan, T. (2018). Mobile moralities: Ethical consumption in the digital realm. *Journal of Consumer Culture*, *18*(4), 520-538.

Hur, W. M., & Kim, Y. (2017). How does culture improve consumer engagement in CSR initiatives? The mediating role of motivational attributions. *Corporate Social Responsibility and Environmental Management*, *24*(6), 620-633.

Imam, F., (2013). Individualism-Collectivism as Related to Voting Behavior of Youth and Adults in Pakistan. *New Horizons*, *7*(2), p.1.

Inglehart, R. (1977). The silent revolution: Changing values and political styles in advanced industrial society, 80-97

International Organisation for standardisation (ISO), (2018). https://www.iso.org/news/ref2322.html

International Panel on Climate Change (2018), IPCC Special Report on Global Warming of 1.5°C approved by governments, https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/

Islam, N. (2004). Sifarish, sycophants, power and collectivism: Administrative culture in Pakistan. *International Review of Administrative Sciences*, 70(2), 311-330.

Jackson, T. (2005). Motivating sustainable consumption. *Sustainable Development Research Network*, *29*(1), 30-40.

Jackson, T. (2007). 16 Sustainable consumption. *Handbook of Sustainable Development*, 254.

Jacobs, K., Petersen, L., Hörisch, J., & Battenfeld, D. (2018). Green thinking but thoughtless buying? An empirical extension of the value-attitude-behavior hierarchy in sustainable clothing. *Journal of Cleaner Production*, *203*, 1155-1169.

Jägel, T., Keeling, K., Reppel, A., & Gruber, T. (2012). Individual values and motivational complexities in ethical clothing consumption: A means-end approach. *Journal of Marketing Management*, 28(3-4), 373-396.

Jakubanecs, A., & Supphellen, M. (2016). Cultural embeddedness of products: A new measurement of culture and its effects. *International Journal of Market Research*, *58*(2), 301-323.

Jamal, A. and Sharifuddin, J., (2015). Perceived value and perceived usefulness of halal labeling: The role of religion and culture. *Journal of Business Research*, 68(5), 933-941.

Jang, S. Y., Chung, J. Y., & Kim, Y. G. (2015). Effects of environmentally friendly perceptions on customers' intentions to visit environmentally friendly restaurants: An extended theory of planned behavior. *Asia Pacific Journal of Tourism Research*, *20*(6), 599-618.

Jian, Y., Zhou, Z., & Zhou, N. (2019). Brand cultural symbolism, brand authenticity, and consumer well-being: the moderating role of cultural involvement. *Journal of Product & Brand Management*, 0(0),00-00

Johansen, S.B., Næs, T. and Hersleth, M. (2011). Motivation for choice and healthiness perception of calorie-reduced dairy products. A cross-cultural study. *Appetite*, 56(1), 15-24.

Johnstone, M. L., & Tan, L. P. (2015). Exploring the gap between consumers' green rhetoric and purchasing behavior. *Journal of Business Ethics*, *132*(2), 311-328.

Jones, P., Clarke-Hill, C., Comfort, D., & Hillier, D. (2008). Marketing and sustainability. *Marketing Intelligence & Planning*, *26*(2), 123-130.

Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behavior and future research directions. *International Strategic management Review*, *3*(1-2), 128-143.

Kahle, L. R. (1983). *Social values and social change: Adaptation to life in America*. Praeger Publishers.

Kahle, L.R., Beatty, S.E. and Homer, P., (1986). Alternative measurement approaches to consumer values: the list of values (LOV) and values and life style (VALS). *Journal of Consumer Research*, 13(3), 405-409.

Kaiser, F. G., Ranney, M., Hartig, T., & Bowler, P. A. (1999). Ecological behavior, environmental attitude, and feelings of responsibility for the environment. *European Psychologist*, *4*(2), 59.

Kanchanapibul, M., Lacka, E., Wang, X., & Chan, H. K. (2014). An empirical investigation of green purchase behavior among the young generation. *Journal of Cleaner Production*, *66*, 528-536.

Kareklas, I., Carlson, J.R. and Muehling, D.D. (2014). I eat organic for my benefit and yours": egoistic and altruistic considerations for purchasing organic food and their implications for advertising strategists. *Journal of Advertising*, 43(1), 18-32.

Kashima, Y. (2014). How can you capture cultural dynamics?. *Frontiers in Psychology*, *5*, 995.

Kaufmann, H. R., Panni, M. F. A. K., & Orphanidou, Y. (2012). Factors affecting consumers' green purchasing behavior: An integrated conceptual framework. *Amfiteatru Economic Journal*, *14*(31), 50-69.

Keller, K. L. (2002). Branding and brand equity. *Handbook of marketing*, *151*.

Khatri, N., Tsang, E. W., & Begley, T. M. (2006). Cronyism: A cross-cultural analysis. *Journal of International Business Studies*, 37(1), 61-75.

Khojastehpour, M., & Johns, R. (2014). The effect of environmental CSR issues on corporate/brand reputation and corporate profitability. *European Business Review*, *26*(4), 330-339.

Kim, E. S., Cao, C., Wang, Y., & Nguyen, D. T. (2017). Measurement invariance testing with many groups: A comparison of five approaches. *Structural Equation Modeling: A Multidisciplinary Journal*, 24(4), 524-544.

Kim, H., Lee, S. H., & Yang, K. (2015). The heuristic-systemic model of sustainability stewardship: facilitating sustainability values, beliefs and practices with corporate social responsibility drives and eco-labels/indices. *International Journal of Consumer Studies*, *39*(3), 249-260.

Kim, U. E., Triandis, H. C., Kâğitçibaşi, Ç. E., Choi, S. C. E., & Yoon, G. E. (1994). *Individualism and collectivism: Theory, method, and applications*. Sage Publications, Inc.

Kim, Y. (2011). Understanding green purchase: The influence of collectivism, personal values and environmental attitudes, and the moderating effect of perceived consumer effectiveness, *Seoul Journal of Business*, 17(1), 65-92.

Kim, Y. and Choi, S.M., (2005). Antecedents of green purchase behavior: An examination of collectivism, environmental concern, and PCE. *In North American-Advances in Consumer Research*, 32, 592-599.

Kimura, A., Mukawa, N., Yamamoto, M., Masuda, T., Yuasa, M., Goto, S. I., & Wada, Y. (2012). The influence of reputational concerns on purchase intention of fair-trade foods among young Japanese adults. *Food Quality and Preference*, *26*(2), 204-210.

Kinnear, T. C., Taylor, J. R., & Ahmed, S. A. (1974). Ecologically Concerned Consumers: Who are They? Ecologically Concerned Consumers can be Identified. *Journal of Marketing*, *38*(2), 20-24.

Kirkman, B. L., Lowe, K. B., & Gibson, C. B. (2006). A quarter century of culture's consequences: A review of empirical research incorporating Hofstede's cultural values framework. *Journal of International Business Studies*, *37*(3), 285-320.

Kirmani, A., & Zhu, R. (2007). Vigilant against manipulation: The effect of regulatory focus on the use of persuasion knowledge. *Journal of Marketing Research*, *44*(4), 688-701.

Kluckhohn, F. R., & Strodtbeck, F. L. (1961). Variations in value orientations.

Kolk, A. and Pinske, J. (2004). Market Strategies for Climate Change, *European Management Journal*, 22, 304-14

Kollmuss, A. and Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?', *Environmental Education Research*, 8(3)239–260.

Komarraju, M. and Cokley, K.O. (2008). Horizontal and vertical dimensions of individualism-collectivism: a comparison of African Americans and European Americans', *Cultural Diversity and Ethnic Minority Psychology*, 14(4), 336.

Koo, M., & Shavitt, S. (2010). Cross-Cultural Psychology of Consumer Behavior. *Wiley International Encyclopedia of Marketing*.

Kotler, P. (2011). Reinventing marketing to manage the environmental imperative. *Journal of Marketing*, *75*(4), 132-135.

Kruglanski, A.W. (2006). The nature of fit and the origins of 'feeling right': a goal-systemic perspective, *Journal of Marketing Research*, 43(1), 11–14.

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

Kumar, R. (2011). *Research Methodology: A Step-by-Step Guide for Beginners*, 3rd ed., Sage, Los Angeles.

Kumar, V., Anand, A. and Song, H. (2017). Future of retailer profitability: an organizing framework. *Journal of Retailing*, 93(1), 96-119.

Kurowska S. (2003). Sustainable consumption, *International Journal of Consumer Studies*, 27(3), 237-238.

Lancaster, G. (2007). Research methods in management. A concise introduction to research in management and business consultancy. Oxford Great Britain, Elsevier Butterworth Heinemann.

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

Larson, R. B., & Kinsey, J. (2019). Culture and sampling issues with "Green" attitude research, *Social Marketing Quarterly*, *25*(2), 91-106.

Le Page, A., Cox, D.N., Russell, C.G. and Leppard, P.I. (2005). Assessing the predictive value of means-end-chain theory: an application to meat product choice by Australian middle-aged women. *Appetite,* 44(2), 151-162.

Le, A. N. H., Tran, M. D., Nguyen, D. P., & Cheng, J. M. S. (2019). Heterogeneity in a dual personal values–dual purchase consequences–green consumption commitment framework. *Asia Pacific Journal of Marketing and Logistics*, *31*(2), 480-498.

Lee, A.Y. and Aaker, J.L. (2004). Bringing the frame into focus: the influence of regulatory fit on processing fluency and persuasion, *Journal of Personality and Social Psychology*, 86(2), 205-218.

Lee, A.Y., Aaker, J.L. and Gardner, W.L. (2000). The pleasures and pains of distinct self-construal: the role of interdependence in regulatory focus, *Journal of Personality and Social Psychology*, 78(6), 1122-1134.

Lee, H. J., & Park, S. Y. (2013). Environmental orientation in going green: A qualitative approach to consumer psychology and sociocultural factors of green consumption. *Journal of Global Scholars of Marketing Science*, *23*(3), 245-262.

Lee, J., & Cho, M. (2019). New insights into socially responsible consumers: The role of personal values. *International Journal of Consumer Studies*, *43*(2), 123-133.

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

Lee, Y. J., & Haley, E. (2019). Role of variability in cultural dimensions across generations in the context of CSR advertising in an East Asian market. *International Journal of Advertising*, *38*(1), 116-138.

Lee, Y. K., Kim, S., Kim, M. S., & Choi, J. G. (2014). Antecedents and interrelationships of three types of pro-environmental behavior. *Journal of Business Research*, *67*(10), 2097-2105.

Leonidou, C. N., & Skarmeas, D. (2017). Gray shades of green: Causes and consequences of green skepticism. *Journal of Business Ethics*, *144*(2), 401-415.

Leonidou, L. C., Leonidou, C. N., & Kvasova, O. (2010). Antecedents and outcomes of consumer environmentally friendly attitudes and behavior. *Journal of Marketing Management*, *26*(13-14), 1319-1344.

Leung, K., Bond, M. H., de Carrasquel, S., Munoz, C., Hernandez, M., Murakami, F., et al. (2002). Social axioms: The search for universal dimensions of general beliefs about how the world functions. *Journal of Cross-Cultural Psychology*, 33, 286-302.

Levitt, T. (1980). *Marketing success through differentiation-of anything* (pp. 83-91). Graduate School of Business Administration, Harvard University.

Limon, Y., Kahle, L. R., & Orth, U. R. (2009). Package design as a communications vehicle in cross-cultural values shopping. *Journal of International Marketing*, 17(1), 30-57.

Lin, C. F., & Fu, H. H. (2001). Exploring logic construction on MECs to enhance marketing strategy. *Marketing Intelligence & Planning*, 19(5), 362-367.

Lin, Y. C., & Chang, C. C. A. (2012). Double standard: The role of environmental consciousness in green product usage. *Journal of Marketing*, *76*(5), 125-134.

Liobikiene, G., Bernatoniene, J., (2017). Why determinants of green purchase cannot be treated equally? The case of green cosmetics: literature review. *Journal of Cleaner Production,* 162, 109-120.

Liobikienė, G., Mandravickaitė, J., & Bernatonienė, J. (2016). Theory of planned behavior approach to understand the green purchasing behavior in the EU: A cross-cultural study. *Ecological Economics*, *125*, 38-46.

Litvin, S. W., & Kar, G. H. (2004). Individualism/collectivism as a moderating factor to the self-image congruity concept. *Journal of Vacation Marketing*, *10*(1), 23-32.

Ljungberg, L. Y. (2007). Materials selection and design for development of sustainable products. *Materials & Design*, *28*(2), 466-479.

Lockie, S., Lyons, K., Lawrence, G. and Mummery, K. (2002). Eating 'green' motivations behind organic food consumption in Australia. Sociologia Ruralis, 42(1), 23-40

López-Duarte, C., & Vidal-Suárez, M. M. (2013). Cultural distance and the choice between wholly owned subsidiaries and joint ventures. *Journal of Business Research*, *66*(11), 2252-2261.

Loureiro, S. M. C., & Kaufmann, H. R. (2014). Intentions towards the sustainability of young adults: a cross-cultural comparison. *World Review of Entrepreneurship, Management and Sustainable Development 5*, *10*(2-3), 247-266.

Lu, L. C., Chang, H. H., & Chang, A. (2015). Consumer personality and green buying intention: The mediate role of consumer ethical beliefs. *Journal of Business Ethics*, *127*(1), 205-219.

Lu, L. C., Chang, H. H., & Yu, S. T. (2013). Online shoppers' perceptions of e-retailers' ethics, cultural orientation, and loyalty: an exploratory study in Taiwan. *Internet Research*, *23*(1), 47-68.

Lundahl, O., (2017). From a moral consumption ethos to an apolitical consumption trend: The role of media and celebrities in structuring the rise of veganism. University of Vaasa, *Acta Wasaensia 381, Business Administration*.

Luomala, H.T., Kumar, R., Singh, J.D. and Jaakkola, M. (2015). When an intercultural business negotiation fails: Comparing the emotions and behavioral

tendencies of individualistic and collectivistic negotiators, *Group Decision and Negotiation,* 24(3), 537–561.

Majid, K. A., & Russell, C. A. (2015). Giving green a second thought: Modeling the value retention of green products in the secondary market. *Journal of Business Research*, *68*(5), 994-1002.

Mancha, R.M. and Yoder, C.Y., (2015). Cultural antecedents of green behavioral intent: An environmental theory of planned behavior. *Journal of Environmental Psychology*, 43, 145-154.

Maniatis, P. (2016). Investigating factors influencing consumer decision-making while choosing green products. *Journal of Cleaner Production*, *132*, 215-228.

Markus, H.R. and Kitayama, S. (1991). Culture and the self: implications for cognition, emotion, and motivation, *Psychological Review*, 98(2), 224.

Marquardt, A. J., Kahle, L. R., O'Connell, D. P., & Godek, J. (2017). LOV measures: Using the list of values to measure symbolic brand equity (an abstract). In *Creating Marketing, Magic and Innovative Future Marketing Trends* (283-284). Springer, Cham.

Martin, C. J., & Upham, P. (2016). Grassroots social innovation and the mobilisation of values in collaborative consumption: a conceptual model. *Journal of Cleaner Production*, *134*, 204-213.

McCarty, J. A., & Shrum, L. J. (2001). The influence of individualism, collectivism, and locus of control on environmental beliefs and behavior. *Journal of Public Policy & Marketing*, *20*(1), 93-104.

McDonald, S., Oates, C., Thyne, M., Alevizou, P., & McMorland, L. A. (2009). Comparing sustainable consumption patterns across product sectors. *International Journal of Consumer Studies*, *33*(2), 137-145.

McDonald, S., Oates, C.J., Alevizou, P.J., Young, C.W. and Hwang, K., (2012). Individual strategies for sustainable consumption. *Journal of Marketing Management*, 28(3-4), 445-468.

Memery, J., Angell, R., Megicks, P. and Lindgreen, A. (2015). Unpicking motives to purchase locally-produced food: analysis of direct and moderation effects. *European Journal of Marketing*, 49(7/8), 1207-1233.

Middlemiss, L. (2018). *Sustainable consumption: key issues*. Routledge.

Milfont, T. L., & Markowitz, E. (2016). Sustainable consumer behavior: A multilevel perspective. *Current Opinion in Psychology*, *10*, 112-117.

Milfont, T. L., & Schultz, P. W. (2016). Culture and the natural environment. *Current Opinion in Psychology*, *8*, 194-199.

Milfont, T.L., Duckitt, J. and Cameron, L.D., (2006). A cross-cultural study of environmental motive concerns and their implications for pro-environmental behavior. *Environment and Behavior*, 38(6), 745-767.

Miniero, G., Codini, A., Bonera, M., Corvi, E. and Bertoli, G. (2014). Being green: from attitude to actual consumption, *International Journal of Consumer Studies,* 38(5), 521–528.

Minton, E., Lee, C., Orth, U., Kim, C. H., & Kahle, L. (2012). Sustainable marketing and social media: A cross-country analysis of motives for sustainable behaviors. *Journal of Advertising*, *41*(4), 69-84.

Mishal, A., Dubey, R., Gupta, O. K., & Luo, Z. (2017). Dynamics of environmental consciousness and green purchase behavior: an empirical study. *International Journal of Climate Change Strategies and Management*, *9*(5), 682-706.

Mo, Z., Liu, M. T., & Liu, Y. (2018). Effects of functional green advertising on self and others. *Psychology & Marketing*, *35*(5), 368-382.

Mohr, L. A., Eroğlu, D., & Ellen, P. S. (1998). The development and testing of a measure of skepticism toward environmental claims in marketers' communications. *Journal of Consumer Affairs*, *32*(1), 30-55.

Moisander, J. (2007). Motivational complexity of green consumerism, *International Journal of Consumer Studies*, 31(4), 404–409.

Mont, O., & Plepys, A. (2008). Sustainable consumption progress: should we be proud or alarmed?. *Journal of Cleaner Production*, *16*(4), 531-537.

Moon, W., Balasubramanian, S. K., & Rimal, A. (2005). Perceived health benefits and soy consumption behavior: two-stage decision model approach. *Journal of Agricultural and Resource Economics*, 315-332.

Moraes, C., Carrigan, M., & Szmigin, I. (2012). The coherence of inconsistencies: Attitude–behavior gaps and new consumption communities. *Journal of Marketing Management*, *28*(1-2), 103-128.

Mørk, T., Bech-Larsen, T., Grunert, K. G., & Tsalis, G. (2017). Determinants of citizen acceptance of environmental policy regulating consumption in public settings: Organic food in public institutions. *Journal of Cleaner Production*, *148*, 407-414.

Morren, M., & Grinstein, A. (2016). Explaining environmental behavior across borders: A meta-analysis. *Journal of Environmental Psychology*, *47*, 91-106.

Mostafa, M.M. (2007). Gender differences in Egyptian consumers' green purchase behavior: the effects of environmental knowledge, concern and attitude, *International Journal of Consumer Studies*, 31(3), 220–229.

Mueller, S. L., & Dato-on, M. C. (2013). A cross-cultural study of gender-role orientation and entrepreneurial self-efficacy. *International Entrepreneurship and Management Journal*, *9*(1), 1-20.

Mullie, P., Guelinckx, I., Clarys, P., Degrave, E., Hulens, M. and Vansant, G. (2009). Cultural, socioeconomic and nutritional determinants of functional food consumption patterns. *European Journal of Clinical Nutrition,* 63(11), 1290-1296.

Muralidharan, S., Rejón-Guardia, F., & Xue, F. (2016). Understanding the green buying behavior of younger Millennials from India and the United States: A structural equation modeling approach. *Journal of International Consumer Marketing*, *28*(1), 54-72.

Murphy, E., & Dingwall, R. (2007). Informed consent, anticipatory regulation and ethnographic practice. *Social Science & Medicine*, *65*(11), 2223-2234.

Nair, S. R., & Little, V. J. (2016). Context, culture and green consumption: a new framework. *Journal of International Consumer Marketing*, *28*(3), 169-184.

Narula, S. A., & Desore, A. (2016). Framing green consumer behavior research: opportunities and challenges. *Social Responsibility Journal*, *12*(1), 1-22.

Ng, E. S., & Burke, R. J. (2010). Predictor of business students' attitudes toward sustainable business practices. *Journal of Business Ethics*, *95*(4), 603-615.

Ngo, A. T., West, G. E., & Calkins, P. H. (2009). Determinants of environmentally responsible behaviors for greenhouse gas reduction. *International Journal of Consumer Studies*, *33*(2), 151-161.

Nguyen, T. N., Lobo, A., & Greenland, S. (2017). The influence of cultural values on green purchase behavior. *Marketing Intelligence & Planning*, *35*(3), 377-396.

Nidumolu, R., Prahalad, C. K., & Rangaswami, M. R. (2009). Why sustainability is now the key driver of innovation. *Harvard Business Review*, *87*(9), 56-64.

Nielsen (2013), Will a desire to protect the environment translate into action?, retrieved from https://www.nielsen.com/us/en/insights/news/2013/will-a-desire-to-protect-the-environment-translate-into-action-.html

Niinimäki, K. (2011). *From disposable to sustainable: the complex interplay between design and consumption of textiles and clothing*. Aalto University.

Nordfjærn, T., & Zavareh, M. F. (2016). Individualism, collectivism and pedestrian safety: A comparative study of young adults from Iran and Pakistan. *Safety Science*, 87, 8-17.

Nuutila, J. (2016). The Finnish organic food chain. Modelling towards 2020 goals with change and innovation. University of Helsinki, Institute of Behavioral Sciences. *Studies in Educational Sciences 272*.

Nyborg, K., Howarth, R. B., & Brekke, K. A. (2006). Green consumers and public policy: On socially contingent moral motivation. *Resource and Energy Economics*, *28*(4), 351-366.

Oishi, S., Schimmack, U., Diener, E., & Suh, E. M. (1998). The measurement of values and individualism-collectivism. *Personality and Social Psychology Bulletin*, 24(11). 1177-1189.

Ojea, E., & Loureiro, M. L. (2007). Altruistic, egoistic and biospheric values in willingness to pay (WTP) for wildlife. *Ecological Economics*, *63*(4), 807-814.

Oliver, J. D., & Rosen, D. E. (2010). Applying the environmental propensity framework: A segmented approach to hybrid electric vehicle marketing strategies. *Journal of Marketing Theory and Practice*, *18*(4), 377-393.

Oliver, J.D. and Lee, S.H., (2010). Hybrid car purchase intentions: a cross-cultural analysis. *Journal of Consumer Marketing*, 27(2). 96-103.

Olson, E. L. (2013). It's not easy being green: the effects of attribute trade-offs on green product preference and choice. *Journal of the Academy of Marketing Science*, *41*(2), 171-184.

Onur, A., Sahin, E., & Tekkaya, C. (2012). An investigation on value orientations, attitudes and concern towards the environment: the case of Turkish elementary school students. *Environmental Education Research*, *18*(2), 271-297.

Onwezen, M.C., Bartels, J. and Antonides, G. (2014). The self-regulatory function of anticipated pride and guilt in a sustainable and healthy consumption context, *European Journal of Social Psychology*, 44(1), 53-68.

Oreg, S., & Katz-Gerro, T. (2006). Predicting proenvironmental behavior cross-nationally: Values, the theory of planned behavior, and value-belief-norm theory. *Environment and Behavior*, *38*(4), 462-483.

Ottman, J. A., & Herbert, H. (1993). *Green marketing* (Vol. 2). Illinois–USA: NTC Business books.

Oyedele, A., & Dejong, P. (2013). Consumer readings of green appeals in advertisements. *Journal of Promotion Management*, *19*(4), 435-451.

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, *128*(1), 3.

Paço, A., & Gouveia Rodrigues, R. (2016). Environmental activism and consumers' perceived responsibility. *International Journal of Consumer Studies*, *40*(4), 466-474.

Padel, S., & Foster, C. (2005). Exploring the gap between attitudes and behavior: Understanding why consumers buy or do not buy organic food. *British Food Journal*, 107(8), 606-625.

Papista, E. and Krystallis, A., (2013). Investigating the types of value and cost of green brands: proposition of a conceptual framework. *Journal of Business Ethics*, 115(1), 75-92.

Park, H., Russell, C., & Lee, J. (2007). National culture and environmental sustainability: A cross-national analysis. *Journal of Economics and Finance*, *31*(1), 104-121.

Park, J. S., & Lee, J. (2014). Segmenting green consumers in the United States: Implications for green marketing. *Journal of Promotion Management*, *20*(5), 571-589.

Park, M., Cho, H., Johnson, K. K., & Yurchisin, J. (2017). Use of behavioral reasoning theory to examine the role of social responsibility in attitudes toward apparel donation. *International Journal of Consumer Studies*, *41*(3), 333-339.

Parker, A.G. and Grinter, R.E., (2014). Collectivistic health promotion tools: Accounting for the relationship between culture, food and nutrition. *International Journal of Human Computer Studies*, *72*(2), 185-206.

Paul, J., Modi, A. and Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action, *Journal of Retailing and Consumer Services*, 29, 123–134.

Pawaskar, U. S., Raut, R. D., & Gardas, B. B. (2018). Assessment of consumer behavior towards environmental responsibility: A structural equations modeling approach. *Business Strategy and the Environment*, *27*(4), 560-571.

Peattie, K. (2010). Green consumption: behavior and norms. *Annual Review of Environment and Resources*, *35*, 195-228.

Peattie, K., & Charter, M. (2003). Green marketing. *The marketing book*, *5*, 726-755.

Peattie, K., & Collins, A. (2009). Guest editorial: Perspectives on sustainable consumption. *International Journal of Consumer Studies*, *33*(2), 107-112.

Pentina, I., Bailey, A.A. and Zhang, L. (2018). Exploring effects of source similarity, message valence, and receiver regulatory focus on yelp review persuasiveness and purchase intentions, *Journal of Marketing Communications*, 24(2), 125–145.

Perlaviciute, G., & Steg, L. (2015). The influence of values on evaluations of energy alternatives. *Renewable Energy*, *77*, 259-267.

Perrea, T., G. Grunert, K., Krystallis, A., Zhou, Y., Huang, G., & Hue, Y. (2014). Testing and validation of a hierarchical values-attitudes model in the context of green food in China. *Asia Pacific Journal of Marketing and Logistics*, *26*(2), 296-314.

Peter, J.P. and Olson, J.C. (2005) Consumer Behavior and Marketing Strategy, 7th edition, New York: McGraw-Hill Companies, Inc

Phellas, C. N. (2006, March). Keith F. Punch (2005). Introduction to Social Research—Quantitative & Qualitative Approaches. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* (Vol. 7, No. 2).

Pickett-Baker, J., & Ozaki, R. (2008). Pro-environmental products: marketing influence on consumer purchase decision. *Journal of Consumer Marketing*, *25*(5), 281-293.

Poels, K. and Dewitte, S. (2008). Hope and self-regulatory goals applied to an advertising context: promoting prevention stimulates goal-directed behavior, *Journal of Business Research*, 61(10), 1030–1040.

Polman, E. (2012). Effects of self–other decision making on regulatory focus and choice overload. *Journal of Personality and Social Psychology*, *102*(5), 980.

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

Polonsky, M. J. (2011). Transformative green marketing: Impediments and opportunities. *Journal of Business Research*, *64*(12), 1311-1319.

Price, J. C., Walker, I. A., & Boschetti, F. (2014). Measuring cultural values and beliefs about environment to identify their role in climate change responses. *Journal of Environmental Psychology*, *37*, 8-20.

Pujari, D., Wright, G., & Peattie, K. (2003). Green and competitive: Influences on environmental new product development performance. *Journal of business Research*, *56*(8), 657-671.

Pula, K., Parks, C. D., & Ross, C. F. (2014). Regulatory focus and food choice motives. Prevention orientation associated with mood, convenience, and familiarity. *Appetite*, *78*, 15-22.

Punch, K. F. (1998). Introduction to social research: Quantitative and qualitative approaches. Thousand Oaks, CA: Sage.

Puska, P. (2019). Does Organic Food Consumption Signal Prosociality?: An Application of Schwartz's Value Theory. *Journal of Food Products Marketing*, *25*(2), 207-231.

Puska, P., Kurki, S., Lähdesmäki, M., Siltaoja, M. and Luomala, H. (2018). Sweet taste of prosocial status signaling: When eating organic foods make you happy and hopeful. *Appetite*, 121(1), 348-359.

Quazi, A., Amran, A., & Nejati, M. (2016). Conceptualizing and measuring consumer social responsibility: A neglected aspect of consumer research. *International Journal of Consumer Studies*, *40*(1), 48-56.

R. Nidumolu, C.K. Prahalad, M.R. Rangaswami (2009). Why sustainability is now the key driver of innovation, *Harvard Business Review*, 87, 56-64

Rahbar, E., & Abdul Wahid, N. (2011). Investigation of green marketing tools' effect on consumers' purchase behavior. *Business Strategy Series*, *12*(2), 73-83.

Rahman, I., & Reynolds, D. (2016). Predicting green hotel behavioral intentions using a theory of environmental commitment and sacrifice for the environment. *International Journal of Hospitality Management*, *52*, 107-116.

Ramanaiah, N. V., Clump, M., & Sharpe, J. P. (2000). Personality profiles of environmentally responsible groups. *Psychological Reports*, *87*(1), 176-178.

Ramayah, T., Lee, J. W. C., & Mohamad, O. (2010). Green product purchase intention: Some insights from a developing country. *Resources, Conservation and Recycling*, *54*(12), 1419-1427.

Rana, J. and Paul, J. (2017). Consumer behavior and purchase intention for organic food: A review and research agenda. *Journal of Retailing and Consumer Services*, 38(9), 157-165.

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

Reisch, L., Eberle, U., & Lorek, S. (2013). Sustainable food consumption: an overview of contemporary issues and policies. *Sustainability: Science, Practice and Policy*, *9*(2), 7-25.

Reisinger, Y. and Crotts, J.C. (2010). Applying Hofstede's national culture measures in tourism research: Illuminating issues of divergence and convergence. *Journal of Travel Research*, 49(2), 153-164.

Remenyi, D., Williams, B., Money, A., & Swartz, E. (1998). *Doing research in business and management: an introduction to process and method*. Sage.

Richter, N. F., Hauff, S., Schlaegel, C., Gudergan, S., Ringle, C. M., & Gunkel, M. (2016). Using cultural archetypes in cross-cultural management studies. *Journal of International Management*, *22*(1), 63-83.

Riley, L. S., & Kohlbacher, F. (2015). Values as antecedents for ecologically conscious consumer behavior among seniors: A cross-cultural comparison. In *Marketing Dynamism & Sustainability: Things Change, Things Stay the Same* (728-731). Springer, Cham.

Ritter, Á. M., Borchardt, M., Vaccaro, G. L., Pereira, G. M., & Almeida, F. (2015). Motivations for promoting the consumption of green products in an emerging country: exploring attitudes of Brazilian consumers. *Journal of Cleaner Production*, *106*, 507-520.

Roberts, P., Priest, H., & Traynor, M. (2006). Reliability and validity in research. *Nursing standard*, *20*(44), 41-45.

Rokeach, M. (1968). Beliefs, attitudes, and values. San Francisco: Jossey-Bass.

Roldán, J.L. and Sánchez-Franco, M.J. (2012) 'Variance-based structural equation modeling: guidelines for using partial least squares in information systems research', in Research Methodologies, Innovations and Philosophies in Software Systems Engineering and Information Systems, pp.193–221, IGI Global.

Rosli, N., Abdullah, K., & Haque, A. K. M. (2018). Measuring Consumers' Understanding of Green Marketing Objective and Concept in Relation to Environmental Protection. *Advanced Science Letters*, 24(5), 3310-3316.

Rozin, P., Fischler, C., Imada, S., Sarubin, A., & Wrzesniewski, A. (1999). Attitudes to food and the role of food in life in the USA, Japan, Flemish Belgium and France: Possible implications for the diet–health debate. *Appetite*, *33*(2), 163-180.

Rucker, D.D., Galinsky, A.D. and Dubois, D. (2012). Power and consumer behavior: How power shapes who and what consumers' value. *Journal of Consumer Psychology*, 22(3), 352-368.

Ruiz de Maya, S.R., Lopez-Lopez, I. and Munuera, J.L. (2011). Organic food consumption in Europe: International segmentation based on value system differences. *Ecological Economics,* 70(10), 1767-1775.

Russell, C.G., Busson, A., Flight, I., Bryan, J., van Pabst, J.V.L. and Cox, D.N., (2004). A comparison of three laddering techniques applied to an example of a complex food choice. *Food Quality and Preference*, 15(6), 569-583.

Ryan, J., & Casidy, R. (2018). The role of brand reputation in organic food consumption: A behavioral reasoning perspective. *Journal of Retailing and Consumer Services*, *41*, 239-247.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 68.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, *69*(4), 719.

Saleem, F., Adeel, A., Ali, R., & Hyder, S. (2018). Intentions to adopt ecopreneurship: moderating role of collectivism and altruism. *Entrepreneurship and Sustainability Issues*, *6*(2), 517-537.

Samarasinghe, R. (2012). The influence of cultural values and environmental attitudes on green consumer behavior. *The Journal of Behavioral Science*, *7*(1), 83-98.

Sánchez, M., López-Mosquera, N., Lera-López, F., & Faulin, J. (2018). An extended planned behavior model to explain the willingness to pay to reduce noise pollution in road transportation. *Journal of Cleaner Production*, *177*, 144-154.

Sandhu, M.S. and Ching, P.W., (2014). Relationship between Individual Cultural Values and Knowledge Sharing in Selected Multinational Companies in Malaysia. *International Journal of Business and Economics*, 13(1), 1-24.

Saunders, M. N. (2011). *Research methods for business students, 5/e*. Pearson Education India.

Saunders, M. N., Lewis, P., Thornhill, A., & Bristow, A. (2015). Understanding research philosophy and approaches to theory development.

Schaefer, A., & Crane, A. (2005). Addressing sustainability and consumption. *Journal of Macromarketing*, *25*(1), 76-92.

Schrank, Z. and Running, K. (2016). Individualist and collectivist consumer motivations in local organic food markets. *Journal of Consumer Culture*, *18(*1), 184-201.

Schuitema, G., & De Groot, J. I. (2015). Green consumerism: The influence of product attributes and values on purchasing intentions. *Journal of Consumer Behavior*, *14*(1), 57-69.

Schultz, P. (2002). Environmental attitudes and behaviors across cultures. *Online Readings in Psychology and Culture*, 8(1), 4.

Schultz, P. W., & Zelezny, L. (1999). Values as predictors of environmental attitudes: Evidence for consistency across 14 countries. *Journal of Environmental Psychology*, *19*(3), 255-265.

Schultz, P. W., Gouveia, V. V., Cameron, L. D., Tankha, G., Schmuck, P., & Franěk, M. (2005). Values and their relationship to environmental concern and conservation behavior. *Journal of Cross-cultural Psychology*, 36(4), 457-475.

Schwartz, S. (2006). A theory of cultural value orientations: Explication and applications. *Comparative Sociology*, *5*(2-3), 137-182.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology*, 25, 1-65.

Schwartz, S. H., & Bilsky, W. (1987). Toward a universal psychological structure of human values. *Journal of Personality and Social Psychology*, 53, 550-562.

Schwartz, S. H., & Bilsky, W. (1990). Toward a theory of the universal content and structure of values: Extensions and cross-cultural replications. *Journal of Personality and Social Psychology,* 58, 878-891.

Segev, S. (2015). Modelling household conservation behavior among ethnic consumers: the path from values to behaviors. *International Journal of Consumer Studies*, *39*(3), 193-202.

Sekaran U (2006) Research methods for business: A skill building approach. New York USA, John Wiley & Sons

Seyfang, G. (2005). Shopping for sustainability: can sustainable consumption promote ecological citizenship?. *Environmental politics*, *14*(2), 290-306.

Shavitt, S. and Cho, H. (2016). Culture and consumer behavior: the role of horizontal and vertical cultural factors. *Current Opinion in Psychology*, 8(4), 149-154.

Shavitt, S., & Barnes, A. J. (2019). Cross-cultural consumer psychology. *Consumer Psychology Review*, 2(1), 70-84.

Shavitt, S., Johnson, T.P. and Zhang, J. (2011). Horizontal and vertical cultural differences in the content of advertising appeals. *Journal of International Consumer Marketing*, 23(3/4), 297-310.

Shavitt, S., Lalwani, A.K., Zhang, J. and Torelli, C.J. (2006). The horizontal/vertical distinction in cross-cultural consumer research. *Journal of Consumer Psychology*, 16(4), 325-342.

Shavitt, S., Lee, A. Y., & Torelli, C. J. (2009). Cross-Cultural Issues in Consumer Behavior: Frontiers of social psychology. In *Social psychology of consumer behavior: Frontiers of Social Psychology* (pp. 228-250). Psychology Press.

Shavitt, S., Torelli, C.J. and Wong, J. (2009). Identity-based motivation: constraints and opportunities in consumer research, *Journal of Consumer Psychology*, 19(3), 261–266.

Shin, Y. H., Moon, H., Jung, S. E., & Severt, K. (2017). The effect of environmental values and attitudes on consumer willingness to pay more for organic menus: A value-attitude-behavior approach. *Journal of Hospitality and Tourism Management*, *33*, 113-121.

Shukla, P., Singh, J. and Banerjee, M., (2015). They are not all same: variations in Asian consumers' value perceptions of luxury brands. *Marketing Letters*, 26(3), 265-278.

Singelis, T.M., Triandis, H.C., Bhawuk, D.P. and Gelfand, M.J. (1995). Horizontal and vertical dimensions of individualism and collectivism: a theoretical and measurement refinement', *Cross-Cultural Research*, 29(3), 240–275

Sivadas, E., Bruvold, N.T. and Nelson, M.R. (2008). A reduced version of the horizontal and vertical individualism and collectivism scale: A four-country assessment. *Journal of Business Research*, 61(3), 201-210.

Smith, R., Deitz, G., Royne, M. B., Hansen, J. D., Grünhagen, M., & Witte, C. (2013). Cross-cultural examination of online shopping behavior: A comparison of Norway, Germany, and the United States. *Journal of Business Research*, *66*(3), 328-335.

Soares, A. M., Farhangmehr, M., & Shoham, A. (2007). Hofstede's dimensions of culture in international marketing studies. *Journal of Business Research*, *60*(3), 277-284.

Song, R., Moon, S., Chen, H. A., & Houston, M. B. (2018). When marketing strategy meets culture: The role of culture in product evaluations. *Journal of the Academy of Marketing Science*, *46*(3), 384-402.

Sook Moon, Y., & Chan, K. (2005). Advertising appeals and cultural values in television commercialsA comparison of Hong Kong and Korea. *International Marketing Review*, *22*(1), 48-66.

Soron, D. (2010). Sustainability, self-identity and the sociology of consumption. *Sustainable Development*, *18*(3), 172-181.

Soyez, K., (2012). How national cultural values affect pro-environmental consumer behavior. *International Marketing Review*, 29(6), 623-646.

Sreen, N., Purbey, S., & Sadarangani, P. (2018). Impact of culture, behavior and gender on green purchase intention. *Journal of Retailing and Consumer Services*, *41*, 177-189.

Stahl, G. K., & Tung, R. L. (2015). Towards a more balanced treatment of culture in international business studies: The need for positive cross-cultural scholarship. *Journal of International Business Studies*, *46*(4), 391-414.

Steenkamp, J. B. E., & De Jong, M. G. (2010). A global investigation into the constellation of consumer attitudes toward global and local products. *Journal of Marketing*, *74*(6), 18-40.

Steg, L. (2016). Values, norms, and intrinsic motivation to act pro-environmentally. *Annual Review of Environment and Resources*, *41*, 277-292.

Steg, L., Bolderdijk, J. W., Keizer, K., & Perlaviciute, G. (2014). An integrated framework for encouraging pro-environmental behavior: The role of values, situational factors and goals. *Journal of Environmental Psychology*, *38*, 104-115.

Steg, L., De Groot, J. I., Dreijerink, L., Abrahamse, W., & Siero, F. (2011). General antecedents of personal norms, policy acceptability, and intentions: the role of values, worldviews, and environmental concern. *Society and Natural Resources*, *24*(4), 349-367.

Stern, P. C. (2000). New environmental theories: toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, *56*(3), 407-424.

Stern, P. C., Kalof, L., Dietz, T., & Guagnano, G. A. (1995). Values, beliefs, and proenvironmental action: Attitude formation toward emergent attitude objects 1. *Journal of Applied Social Psychology*, *25*(18), 1611-1636.

Stone, G. W., Coley, L. S., & Leak, R. L. (2014). Toward a Global Consumer "Eco-orientation" Model: A Cross-national Perspective. *Journal of International Consumer Marketing*, *26*(4), 311-328.

Strahan, E. J., Spencer, S. J., & Zanna, M. P. (2002). Subliminal priming and persuasion: Striking while the iron is hot. *Journal of Experimental Social Psychology*, *38*(6), 556-568.

Sun, G., D'Alessandro, S., W. Johnson, L., & Winzar, H. (2014). Do we measure what we expect to measure? Some issues in the measurement of culture in consumer research. *International Marketing Review*, *31*(4), 338-362.

Swami, V., Chamorro-Premuzic, T. O. M. A. S., Snelgar, R., & Furnham, A. (2010). Egoistic, altruistic, and biospheric environmental concerns: A path analytic investigation of their determinants. *Scandinavian Journal of Psychology*, *51*(2), 139-145.

Tam, K. P., & Chan, H. W. (2017). Environmental concern has a weaker association with pro-environmental behavior in some societies than others: A cross-cultural psychology perspective. *Journal of Environmental Psychology, 53*, 213–223.

Tam, K. P., & Chan, H. W. (2017). Environmental concern has a weaker association with pro-environmental behavior in some societies than others: A cross-cultural psychology perspective. *Journal of Environmental Psychology*, *53*, 213-223.

Tascioglu, M., Eastman, J., Bock, D., Manrodt, K., & Shepherd, C. D. (2019). The impact of retailers' sustainability and price on consumers' responses in different

cultural contexts. *The International Review of Retail, Distribution and Consumer Research*, 1-26.

Taufique, K. M. R., & Vaithianathan, S. (2018). A fresh look at understanding Green consumer behavior among young urban Indian consumers through the lens of Theory of Planned Behavior. *Journal of Cleaner Production*, *183*, 46-55.

Tekeş, B., Üzümcüoğlu, Y., Hoe, C., & Özkan, T. (2018). The Relationship between Hofstede's Cultural Dimensions, Schwartz's Cultural Values, and Obesity. *Psychological Reports*, 122(3), 968-987

Teng, Y. M., Wu, K. S., & Huang, D. M. (2014). The influence of green restaurant decision formation using the VAB model: The effect of environmental concerns upon intent to visit. *Sustainability*, *6*(12), 8736-8755.

Testa, F., Iraldo, F., Vaccari, A., & Ferrari, E. (2015). Why eco-labels can be effective marketing tools: Evidence from a study on Italian consumers. *Business Strategy and the Environment*, *24*(4), 252-265.

Thienhirun, S. and Chung, S. (2017). Influence of List of Values on Customer Needs, Satisfaction, and Return Intention in Ethnic Restaurants. *Journal of Hospitality Marketing & Management*, 26(8), 868-888.

Thøgersen, J. (2011). Green shopping: for selfish reasons or the common good?. *American Behavioral Scientist*, *55*(8), 1052-1076.

Thøgersen, J., & Ölander, F. (2002). Human values and the emergence of a sustainable consumption pattern: A panel study. *Journal of Economic Psychology*, *23*(5), 605-630.

Thøgersen, J., & Ölander, F. (2003). Spillover of environment-friendly consumer behavior. *Journal of Environmental Psychology*, *23*(3), 225-236.

Thøgersen, J., Zhou, Y., & Huang, G. (2016). How stable is the value basis for organic food consumption in China?. *Journal of Cleaner Production*, *134*, 214-224.

Thompson, S. and Barton,M. (1994). Ecocentric and anthropocentric attitudes toward the environment. *Journal of Environmental Psychology,* 14, 149-157.

Torelli, C. J., & Shavitt, S. (2010). Culture and concepts of power. *Journal of Personality and Social Psychology*, *99*(4), 703-723

Torelli, C. J., Keh, H. T., & Chiu, C. Y. (2010). Cultural symbolism of brands. *Brands and brand management: Contemporary Research Perspectives*, 113-32.

Torelli, C. J., Özsomer, A., Carvalho, S. W., Keh, H. T., & Maehle, N. (2012). Brand concepts as representations of human values: do cultural congruity and compatibility between values matter?, Journal *of Marketing*, 76(4). 92-108.

Torres, C.V. and Pérez-Nebra, A.R., (2007). The influence of human values on holiday destination choice in Australia and Brazil. *BAR-Brazilian Administration Review*, 4(3). 63-76.

Triandis, H. C. (2004). The many dimensions of culture. *Academy of Management Perspectives*, *18*(1), 88-93.

Triandis, H.C. (1995). *Individualism & collectivism*. Westview press.

Triandis, H.C. and Gelfand, M.J., (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74(1), 118-128.

Trompenaars, F., & Hampden-Turner, C. (1993). The seven cultures of capitalism. *London: Piatkus*, *25*.

Tsen, C. H., Phang, G., Hasan, H., & Buncha, M. R. (2006). Going green: A study of consumers' willingness to pay for green products in Kota Kinabalu. *International Journal of Business and Society*, *7*(2), 40-54.

Tuan Pham, M. and Chang, H.H. (2010). Regulatory focus, regulatory fit, and the search and consideration of choice alternatives, *Journal of Consumer Research*, 37(4), 626–640.

UNEP, A. (2009). Global green new deal. *United Nations Environment Programme, New York, NY*.

UNFCCC, INDCs as communicated by Parties (UNFCCC, Bonn, Germany, 2015); http://bit.ly/INDC-UNFCCC

United Nations, (2018). Sustainable development goals, Retrieved from https://www.un.org/sustainabledevelopment/sustainable-development-goals/ 12.12.2018

Urien, B., & Kilbourne, W. (2011). Generativity and self-enhancement values in eco-friendly behavioral intentions and environmentally responsible consumption behavior. *Psychology & Marketing*, *28*(1), 69-90.

van Dam, Y. K., & van Trijp, J. C. M. (2016). Interventions to encourage sustainable consumption. *APSTRACT: Applied Studies in Agribusiness and Commerce*, *10*(2-3), 51-58.

Van der Werff, E., Steg, L., & Keizer, K. (2013). The value of environmental self-identity: The relationship between biospheric values, environmental self-identity and environmental preferences, intentions and behavior. *Journal of Environmental Psychology*, *34*, 55-63.

Van Lange, P.A., Joireman, J., Parks, C.D. and Van Dijk, E. (2013). The psychology of social dilemmas: a review, *Organizational Behavior and Human Decision Processes*, 120(2), 125–141.

Van Riper, C. J., Lum, C., Kyle, G. T., Wallen, K. E., Absher, J., & Landon, A. C. (2018). Values, Motivations, and intentions to engage in pro-environmental behavior. *Environment and Behavior*, 1-26

van Zomeren, M. (2014). Synthesizing individualistic and collectivistic perspectives on environmental and collective action through a relational perspective. *Theory & Psychology*, 24(6), 775-794.

Vega-Zamora, M., Torres-Ruiz, F.J., Murgado-Armenteros, E.M. and Parras-Rosa, M., (2014). Organic as a heuristic cue: What Spanish consumers mean by organic foods. *Psychology & Marketing*, 31(5), 349-359.

Venaik, S., & Brewer, P. (2013). Critical issues in the Hofstede and GLOBE national culture models. *International Marketing Review*, *30*(5), 469-482.

Vermeir, I., & Verbeke, W. (2006). Sustainable food consumption: Exploring the consumer "attitude–behavioral intention" gap. *Journal of Agricultural and Environmental Ethics*, *19*(2), 169-194.

Verplanken, B., & Holland, R. W. (2002). Motivated decision making: effects of activation and self-centrality of values on choices and behavior. *Journal of Personality and Social Psychology*, *82*(3), 434.

Vodosek, M. (2009). The relationship between relational models, individualism, and collectivism: Evidence from culturally diverse work groups. *International Journal of Psychology*, 44(2). 120-128.

Wang, S. (2014). Consumer characteristics and social influence factors on green purchasing intentions, *Marketing Intelligence & Planning*, 32(7), pp. 738-753.

Wang, Y., (2014). Individualism/collectivism, charitable giving, and cause-related marketing: a comparison of Chinese and Americans. *International Journal of Non-profit and Voluntary Sector Marketing*, 19(1). 40-51.

Waylen, K.A., Fischer, A., McGowan, P.J. and Milner-Gulland, E.J., (2012). Interactions between a collectivist culture and Buddhist teachings influence environmental concerns and behaviors in the Republic of Kalmykia, Russia. *Society & Natural Resources*, 25(11), 1118-1133.

WCED. (1987). *our common future: Report of the World Commission on Environment and Development*. Retrieved from http://www.un.org/Docs/journal/asp/ws.asp?m=A/42/427

Webb, D.J., Mohr, L.A. and Harris, K.E., (2008). A re-examination of socially responsible consumption and its measurement. *Journal of Business Research*, 61(2). 91-98.

Weber, R. (2004). Editor's comments: the rhetoric of positivism versus interpretivism: a personal view. *MIS quarterly*, iii-xii.

Wesley, S. C., Lee, M. Y., & Kim, E. Y. (2012). The role of perceived consumer effectiveness and motivational attitude on socially responsible purchasing behavior in South Korea. *Journal of Global Marketing*, *25*(1), 29-44.

Westaby, J. D. (2005). Behavioral reasoning theory: Identifying new linkages underlying intentions and behavior. *Organizational Behavior and Human Decision Processes*, *98*(2), 97-120.

Westerlund-Lind, L. (2007). Consumer involvement and perceived differentiation of different kinds of pork: A Means-End Chain analysis. *Food Quality and Preference,* 18(4), 690-700.

Williams, Christopher, (1997). Environmental victims: Arguing the costs." *Environmental Values,* (6), 1 3-30.

Winterich, K.P. and Zhang, Y. (2014). Accepting inequality deters responsibility: How power distance decreases charitable behavior. *Journal of Consumer Research*, 41(2), 274-293.

Wong, J., Newton, J. D., & Newton, F. J. (2014). Effects of power and individual-level cultural orientation on preferences for volunteer tourism. *Tourism Management*, 42, 132-140.

Woosnam, K. M., McElroy, K. E., & Van Winkle, C. M. (2009). The role of personal values in determining tourist motivations: An application to the Winnipeg Fringe Theatre Festival, a cultural special event. *Journal of Hospitality Marketing & Management*, *18*, 500-511

Xiang, P., Zhang, H., Geng, L., Zhou, K., & Wu, Y. (2019). Individualist–Collectivist Differences in Climate Change Inaction: The Role of Perceived Intractability. *Frontiers in Psychology*, *10*(187), 1-22

Xue, F. (2015). Message framing and collectivistic appeal in green advertising—a study of Chinese consumers. *Journal of International Consumer Marketing*, *27*(2), 152-166.

Yadav, R. (2016). Altruistic or egoistic: Which value promotes organic food consumption among young consumers? A study in the context of a developing nation. *Journal of Retailing and Consumer Services*, *33*, 92-97.

Yadav, R., Balaji, M. S., & Jebarajakirthy, C. (2019). How psychological and contextual factors contribute to travelers' propensity to choose green hotels? *International Journal of Hospitality Management*, *77*, 385-395.

Yaprak, A. (2008). Culture study in international marketing: a critical review and suggestions for future research. *International Marketing Review*, *25*(2), 215-229.

Yazdanpanah, M., & Forouzani, M. (2015). Application of the Theory of Planned Behavior to predict Iranian students' intention to purchase organic food. *Journal of Cleaner Production*, 107, 342-352.

Yen, G. F., Wang, R. Y., & Yang, H. T. (2017). How consumer mindsets in ethnic Chinese societies affect the intention to buy fair trade products: The mediating and

moderating roles of moral identity. *Asia Pacific Journal of Marketing and Logistics*, *29*(3), 553-568.

Yi-Cheon Yim, M., L. Sauer, P., Williams, J., Lee, S.J. and Macrury, I., (2014). Drivers of attitudes toward luxury brands: A cross-national investigation into the roles of interpersonal influence and brand consciousness. *International Marketing Review*, 31(4), 363-389.

Yoo, B., Donthu, N. and Lenartowicz, T. (2011). Measuring Hofstede's five dimensions of cultural values at the individual level: Development and validation of CVSCALE. *Journal of International Consumer Marketing,* 23(3-4), 193-210.

Young, W., Hwang, K., McDonald, S., & Oates, C. J. (2010). Sustainable consumption: green consumer behavior when purchasing products. *Sustainable Development*, *18*(1), 20-31.

Yu, T. Y., Yu, T. K., & Chao, C. M. (2017). Understanding Taiwanese undergraduate students' pro-environmental behavioral intention towards green products in the fight against climate change. *Journal of Cleaner Production*, *161*, 390-402.

Zabel, H. U. (2005). A model of human behavior for sustainability. *International Journal of Social Economics*, *32*(8), 717-734.

Zabkar, V., & Hosta, M. (2013). Willingness to act and environmentally conscious consumer behavior: can prosocial status perceptions help overcome the gap?. *International Journal of Consumer Studies*, *37*(3), 257-264.

Zagata, L. (2014). Towards conscientious food consumption: exploring the values of Czech organic food consumers. *International Journal of Consumer Studies*, 38(3), 243-250.

Żakowska-Biemans, S., (2011). Polish consumer food choices and beliefs about organic food. *British Food Journal*, 113(1), 122-137.

Zanoli, R., & Naspetti, S. (2002). Consumer motivations in the purchase of organic food: a means-end approach. *British Food Journal*, 104(8), 643-653.

Zhang, J. and Nelson, M.R. (2016). The effects of vertical individualism on status consumer orientations and behaviors. *Psychology & Marketing*, 33(5), 318-330.

Zhang, L., Li, D., Cao, C., & Huang, S. (2018). The influence of greenwashing perception on green purchasing intentions: The mediating role of green word-of-mouth and moderating role of green concern. *Journal of Cleaner Production*, *187*, 740-750.

Zhou, L., Teng, L. & Poon, P (2008). Susceptibility to a global consumer culture: a three-dimensional scale. Psychology and Marketing, 25(4), 336-351

Zhu, Q., & Sarkis, J. (2016). Green marketing and consumerism as social change in China: Analyzing the literature. *International Journal of Production Economics*, *181*, 289-302.

Žnidaršič, J., Marič, M., & Ferjan, M. (2012). The affect of consumer's eco awareness on the use, the buying and the preference of eco labeled food products. *Advances in Business-Related Scientific Research Journal*, *3*(1), 91-103.

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Antecedents of green behavioral intentions: a cross-country study of Turkey, Finland and Pakistan

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Abstract

Quality of life of the future generations depends on the efforts of current generations to protect environment. The purchase decisions based on their green behavioral intentions not only helps the society, but also helps companies to gain a green competitive advantage. In this study, the relationships between green satisfaction, green trust, green equity and behavioral intentions are examined. Data were collected from Turkey, Finland and Pakistan with self-administered questionnaires regarding with green white goods. The hypotheses were tested with structural equation modeling. Results of a structural model reveal positive relationships green satisfaction, green trust and green brand equity across three countries. In addition, green brand equity plays a remarkable role in behavioral intentions towards green white goods in general. Managers should consider green trust, green satisfaction, and green brand equity while implementing green marketing strategies in a global marketplace.

Introduction

Customers are becoming more aware of environmental issues as the environmental pollution from industrial manufacturing is increasing and in result they are shifting their consumption patterns (Laroche *et al*., 2001, p. 503; D'Souza *et al*., 2006, p. 148; Chen, 2011, p. 384). This trend indicates that despite all the barriers relating to sustainable consumption (Young *et al*., 2010) green consumers who "adopts environmentally friendly behaviors and/or who purchases green products over the standard alternatives" (Shamdasani *et al*., 1993, p. 288) are increasingly starting to use and willing to pay more for green products (Vermillion and Perat, 2010, p. 68; Laroche *et al*., 2001, p. 503). Compare to other products the business of green products has been steadily increasing in the consumer market round the globe rapidly (Chan, 2013). At the same time, various citizen groups, media, government and other stakeholders' pressure caused firms to take into account the environmental issues while implementing their activities (Kang and Hur, 2012, p. 312).

With regards to this phenomenon, in order to keep in step with the environmental movement (Chen and Chai, 2010, p. 28), businesses started to adopt green marketing strategies (D'Souza *et al*., 2006, p. 144). Green marketing includes the marketing processes and activities of developing, differentiating, pricing and promoting environmentally friendly products or services (Chen and Chang, 2012, p. 503). Environmental threats are disturbing people in many ways that created challenges for governments, companies and customers substantially (Lee, 2009). Some researchers have pointed out that companies started to implement environmental marketing strategies to respond to environmental pressures, achieve competitive advantage, improve brand or corporate image, enhance product value (Chen 2010, p. 307), penetrate into new markets (McDonald and Oates, 2006, p. 157) and increase profitability (Chen, 2010, p. 316). Moreover, firms can benefit from their green products or services as they can reduce the perceived risk of their customers regarding environmental issues (Chen and Chang, 2012, p. 503) and consequently firms can build green brand trust and green brand equity, in result, consumers can become loyal to those products (Ahmad *et al*., 2010).

Manufacturers of white goods have been using new technologies to save energy and promoting their products emphasizing the sustainable consumption. These goods are the household electrical appliances in the home (e.g., refrigerator, dishwasher, dryer, washing machine, and air conditioners etc.). Within this context, they started to place an eco – label which indicates a product is not harmful to the environment during its production, usage and disposable stage (Gallastegui, 2002, p. 316; Ibanez and Grolleau 2008, p. 235; Kang and Hur, 2012, p. 397). Necessities and demands of consumers are now shifting from consuming conventional products to environmental and eco-friendly products. Companies realized that supplying environmental products or services will satisfy customers who have

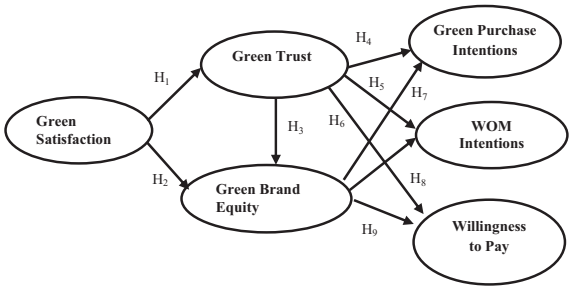

Figure 1 Proposed model

concerns about environmental issues and as a result favorable attitudes will be achieved regarding their products or services (Kang and Hur, 2012, p. 307). Understanding customers' perceptions about green products can provide companies an opportunity regarding with green marketing investments. Therefore, it is imperative for companies to integrate greening across the marketing mix elements to get a positive marketing edge and advantage.

Although past research have broadly focused on the concepts of satisfaction (e.g., Oliver, 1981; Genesan, 1994; Homburg *et al*., 2005), trust (e.g., Morgan and Hunt, 1994), brand equity (e.g., Keller, 1993; Yoo and Donthu, 2001) and behavioral intentions (e.g., Zeithaml *et al*., 1996), relatively limited empirical evidence can be found with respect to these constructs in the context of sustainable consumption (Chen, 2010; Kang and Hur, 2012; Hur *et al*., 2013; Chen and Chang, 2012). More importantly, most of these studies on behavioral intentions are conceptualized as one dimensional construct including purchase intentions, word-of-mouth intentions. In here, behavioral intentions are measured with three subdimensions, namely green purchase intentions, word-of-mouth intentions and willingness to pay premium in order to gain detailed results. Despite the remarkable contributions of previous studies, there remains a lack of country comparison studies regarding with the relationships of these constructs in the context of green consumption. On the basis of these considerations, this study aims to fill this gap by examining the relationships between green trust, green satisfaction, green brand equity and behavioral intentions. The results will not only shed light on the relationships between the relevant constructs in the context of green consumption, but also determine whether these relationships are consistent across different countries such as Turkey, Finland and Pakistan, which are cathegorized by the World Bank as upper middle, high and lower middle income country respectively (The World Bank, 2014).

Additionally, this study incorporates factors that are not only important for consumers to make their intentions of purchasing products from an environmental perspective, but also that how brand related factors influence their satisfaction level which make them loyal and indirectly help companies to strengthen their brands.

The structure of this article is as follows. In the first section, literature about green satisfaction, green trust, green brand equity and behavioral intentions are defined and based on literature review hypotheses are proposed. In the second section, the research methodology is described in terms of the sample, data collection, and measurements of the constructs. In the third section, analyses and results of this study are presented based on the measurement and structural model. The final section presents implications, limitations and suggestions for further research.

Conceptual framework and hypotheses development

The conceptual framework is related to the theory of reasoned action (Ajzen and Fishbein, 1980), which proposes that attitudes and subjective norms influence behavioral intentions, which in turn, impact individual behavior. Consequently, by reviewing and integrating the literature in the context of green consumption, green satisfaction, green trust and green brand equity are modeled as antecedents of behavioral intentions. The proposed model is depicted in Figure 1.

Green satisfaction and green trust

Satisfaction is one of the most widely discussed concepts in the consumer behavior field and considered as fundamental for corporate strategy (Homburg *et al*., 2005, p. 84; Ranaweera and Prabhu, 2003, p. 374). Past research revealed that satisfaction contributes to brand trust (Genesan, 1994; Caceres and Paparoidamis, 2007), brand equity (Pappu and Quester, 2006) and behavioral intentions (Bauman *et al*., 2006; Zacharias *et al*., 2009; Anderson and Srinivasan, 2003; Brown *et al*., 2005; Homburg *et al*., 2005).

Based on the expectancy-disconfirmation paradigm Oliver (1981, p. 27) defined satisfaction in the consumption context as "the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with customer's prior feelings about the consumption experience." In terms of green consumption, Chen (2010, p. 309) introduced novel construct of green satisfaction which refers to "a pleasurable level of consumption-related fulfillment to satisfy a customer's environmental desires, sustainable expectations, and green needs."

Trust is another issue that has been analyzed also in the marketing field. Prior research proved that, brand trust is positively associated with brand equity (Delgado-Ballester and Munuera Alemán, 2005), brand extension acceptance (Reast, 2005) and behavioral intentions (Morgan and Hunt, 1994; Chiou and Droge, 2006). Moorman *et al*. (1993, p. 82) defined that trust is "willingness to rely on an exchange partner in whom one has confidence." Within this context, Chaudhuri and Holbrook (2001, p. 82) defined brand trust as "the willingness of the average consumer to rely on the ability of the brand to perform its stated function." Chen (2010, p. 311) argue that "to trust a brand implicitly implies that there is a high probability or expectancy for its consumers such that the brand would obtain positive evaluation." In the context of sustainable consumption, Chen (2010, p. 309) defined green trust as "a willingness to depend on a product, service, or brand based on the belief or expectation resulting from its credibility, benevolence, and ability about its environmental performance". In addition, in the context of green consumption green trust contributes to risk

reduction and helps consumers to show positive green purchase behavior (Rahbar and Wahid, 2011; Chen and Chang, 2013).

In green marketing literature, recent evidence suggested positive relationship between green satisfaction and green trust (Kang and Hur, 2012; Chen and Chang, 2013). Using this aforementioned literature, it is expected that increase in customers' green satisfaction towards white goods may enhance green trust. Thus the following hypothesis is proposed:

H1: Green satisfaction is positively related to green trust.

Green satisfaction, green trust and green brand equity

Brands have been deemed as primary capital for many firms (Kim *et al*. 2003, p. 335; Kim and Kim, 2005, p. 549). Brands are critical for the success of the companies as they often provide opportunity to differentiate themselves in the mind of the consumers (Wood, 2000, p. 38; Jung and Sung, 2008, p. 24; Pappu *et al*., 2005, p. 143). For building and maintaining competitive advantage (Kim and Kim, 2005, p. 549) the concept of brand equity, which is a key strategic asset (Vogel *et al*., 2008, p. 98) has gained considerable attention by academicians and practitioners in the past decade. Brand equity refers to the "incremental utility or value added to a product by its brand name" (Yoo and Donthu 2001, p. 1). Brand equity has two main perspectives namely financial perspective and customer-based perspective (Keller, 1993). Financial brand equity aims to estimate the value of a brand based on measures of financial, accounting and store level scanner data including incremental cash flows (Yoo and Donthu 2001, p. 1; Keller, 2003, p. 1; Simon and Sullivan, 1993). Financial-based brand equity ignores customers' cognitive and behavioral aspects relating with brands (Yoo and Donthu, 2001, p. 2).

From consumer or marketing perspective, brand equity is referred as consumer-based brand equity (Pappu *et al*., 2005, p. 144). In one of the pioneering studies dealing with customer-based brand equity Keller (1993, p. 8) defined this construct as "the differential effect of brand knowledge on consumer response to the marketing of the brand. In other words, customer-based brand equity is defined as "consumers' different response between a focal brand and an unbranded product when both have the same level of marketing stimuli and product attributes" (Yoo and Donthu 2001, p. 1). Customer based brand equity concerns "how product or service brands are perceived by customers" (Kim *et al*., 2003, p. 336). Understanding customer-based brand equity is vital for successful brand management (Wang *et al*., 2008, p. 263).

Positive customer-based brand equity can lead to increased revenue, cost reduction, greater profits (Keller, 2003, p. 8), incremental volume, revenue, price commanded and cash flow (Ailawadi *et al*., 2003, p. 1). Past evidence revealed that customer-based brand equity positively effects firms' financial performance (Kim and Kim, 2005; Kim and Kim 2004; Tolba and Hassan 2009), satisfaction (Pappu and Quester, 2006), purchase intentions (Wang *et al*., 2008), brand extensibility and price flexibility (Wang *et al*., 2008).

Chen (2010, p. 310) conceptualized green brand equity as "a set of brand assets and liabilities about green commitments and environmental concerns linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service." Prior research has identified an empirical link between green satisfaction and green brand equity (Chen, 2010). Moreover, it was also revealed that green trust is the precursor of green brand equity (Chen, 2010). Hence, it is expected that the more the green satisfaction, the higher level of green brand equity relating with green product. Based on this discussion, it is expected that green trust leads to green brand equity. Therefore, the following hypotheses are proposed:

Hypothesis 2: Green satisfaction is positively related to green brand equity.

Hypothesis 3: Green trust is positively related to green brand equity.

Green trust, green brand equity and behavioral intentions

Behavioral intentions are conceptualized as three subdimensions including, green purchase intentions, word-of-mouth intentions and willingness to pay towards green products (Zeithaml *et al*., 1996). Following Oliver (1999, p. 34), green loyalty is defined as "a deeply held commitment to rebuy or patronize a preferred environmental friendly product or service consistently in the future." Brand loyalty also prevents customers to switch to another brand. (*et al*., 2000, p. 197). In here, purchase intention is used as an indicator of loyalty (Zeithaml *et al*., 1996) which refers to "the likelihood that a consumer would rebuy a particular product resulting from his or her environmental needs" (Chen and Chang, 2002, p. 507).

Following (Netemeyer *et al*., 2004, p. 220) the willingness to pay a premium for green products or services is defined as "the amount a customer is willing to pay for his/her preferred green product or brands over nongreen ones." Referring to Harrison-Walker (2001, p. 63) and Anderson & Gerbing (1988, p. 6) green word-of-mouth intentions is defined as 'customers willingness to communicate about their preferred green products or services with other persons informal, person-to-person communication between a perceived noncommercial communicator and a receiver regarding a brand, a product, an organization or a service.'

Vazquez *et al*. (2002) revealed positive relationship between customer based brand equity and price premium and willingness to recommend. In similar lines, Vogel *et al*. (2008) revealed positive relationship between brand equity and recommend intentions. Moreover, Kim and Kim (2004, p. 116) pointed out that, gaining customers' confidence will increase loyalty and customers' willingness to pay premium for the brand. Furthermore, Mohanasundaram (2012) also argued that consumers are willing to pay more to maintain a cleaner and greener environment. Therefore, factors that influence consumers' purchase intention of environmental friendly products is vital to encourage greener pattern of consumption (Devi *et al*., 2011).

In the context of green consumption, research has demonstrated the role of green trust in developing behavioral intentions including purchase intentions (Chen and Chang, 2013; Kang and Hur, 2012) and word-of-mouth intentions (Kang and Hur, 2012). Based on this, it is expected that increased green trust towards white goods may cause to enhance green purchase

intentions, word-of-mouth intentions and willingness to pay premium. Hence, the following hypotheses are suggested.

Hypothesis 4: Green trust is positively related to green purchase intentions.

Hypothesis 5: Green trust is positively related to green word-of-mouth intentions.

Hypothesis 6: Green trust is positively related to willingness to pay.

Anselmsson & Persson (2007, p. 401) stated that 'how customers perceive brands and what motivate them to pay price premium is an important theme in research on brand equity.' Additionally, Yoo *et al*. (2000, p. 208) asserted that, 'high brand equity may allow a company to charge a higher price because consumers are willing to pay premium prices.' When consumers are satisfied with prior familiarity of brand, they repeat their purchases of those products, which in result influence their decision-making, which leads to them being brand loyal (Rajagopal, 2007; Pickett-Baker and Ozaki, 2008). Keller (1993) adopts loyalty in terms of repeat purchase based on favorable beliefs and attitudes and views loyalty as a consequence of customer-based brand equity. In line with this argument past research revealed positive relationships between brand equity and loyalty including repurchase intentions (Cobb-Walgren *et al*., 1995; Washburn and Plank, 2002; Taylor *et al*. 2004; Tolba and Hassan, 2009; Vogel *et al*., 2008). Therefore, it is expected that higher brand equity may lead to repurchase intentions, word-of-mouth intentions and willingness to pay premium toward green white goods. Thus, the following hypotheses are suggested.

Hypothesis 7: Green brand equity is positively related to green purchase intentions.

Hypothesis 8: Green brand equity is positively related to green word-of-mouth intentions.

Hypothesis 9: Green brand equity is positively related to green word-of-mouth intentions.

Methodology

Measurement instrument

To measure the relevant constructs, a cross-sectional survey design was used in both three countries. The survey instrument had two distinct parts. In the first part, items for measuring the concepts of green satisfaction, green trust, green brand equity and behavioral intentions were included. In the second part, demographic questions were asked including gender, marital status, education level and household income.

Originally the questionnaire was developed in English language. However, for better understandings of the respondents in these three countries, it was then translated into Turkish, Urdu and Finnish languages, and then translated back to English.

Scale items were adapted from prior studies validated scales. Green satisfaction, green trust and green brand equity scales were measured with four items respectively, and were adapted from (Chen, 2010). Behavioral intentions were measured with three subdimensions, including purchase intentions, word-of-mouth intentions and willingness to pay premium with three items. For example, purchase intentions were adapted from Netemeyer *et al*. (2004), Chen and Chang (2012) and Lee *et al*. (2010) while word-of-mouth intentions are from Zeithaml *et al*. (1996) and Lee *et al*., (2010) and willingness to pay a premium is from Lee *et al*. (2010) and Netemeyer *et al*. (2004).

To evaluate the face validity of the scales, three professionals and four academicians were consulted (Edward *et al*., 2012). Then, prior to the main field study, a pretest was carried out with 15 respondents. Based on the feedback from the respondents few scale items were slightly reworded to increase their understanding. All scale items were measured by 5-point Likert-type scales and were anchored with 'strongly disagree to "strongly agree.' In addition, before distributing questionnaires to the respondents, the aim of the research was explained and a prescreening question was asked, that whether they have purchased and use green white goods. All the scale items for measuring relevant constructs are depicted in Table 1.

Data collection and sample in Turkey

In order to test the proposed hypotheses a field study was conducted based on self-administrated questionnaires in Sakarya city. Due to the objective of this study green, white good users are included in the sample. After this phase, by using a convenience sampling technique, 500 customers who use green, white goods were requested to return the completed questionnaires within a frame of a week during May 2013. Out of 500 consumers, 372 of them have completed and returned the questionnaires which yielded a response rate of 74%. After checking the returned questionnaires, 58 questionnaires were not taken into consideration due to their missing values. As a result, 314 completed questionnaires were analyzed.

The demographic characteristics of the sample in Turkey are as follows. Approximately 58.2% of the 314 respondents were female. In general, 53.1% were married; 30.6% were between the ages of 19 and 25, 36.3% were between the ages of 26 and 35, 10.8% were between the ages of 36 and 40; 38.5% had obtained at least a bachelor's degree. With regard to income, 57.3% of the respondents had a monthly household income between 550 and 1650 $and 19.1% between 1651 and 2750 $.

Data collection and sample in Finland

Two methods of data distribution were adopted, an online questionnaire, and printed field questionnaire. Using convenient sampling technique total 500 questionnaires (250 numbers of email and 250 numbers of printed) were distributed among the users of green, white goods in two big cities of Finland in Helsinki and Oulu, and one small city Vaasa, over a three month period (September–November 2013). Out of the total questionnaires due to missing information and inadequate responses, 255 (50.5%) questionnaires were usable and selected for further testing, analysis and interpretation.

Demographic results of the study show that respondents were 52.5% male, 42.4% were single and 57.6% were married. In terms of age distribution, 31.8% were between 19 and 25 years, 40.4% were between 26 and 35 years, 16.1% were between 36 and 45 years. According to education distribution of the respondents, 30.6% were graduates. In terms of income level distribution, in total 19.2% respondents indicated that they have income level $385 to $770, 22.4% have income level $771 to

Table 1 Scale items, factor loadings and measurement model fit indexes

	Turkey	Finland	Pakistan	Overall sample
Constructs				
Green Satisfaction				
S1. Overall, I am satisfied with this brand because of its environmental concern.	0.78	0.77	0.80	0.76
S2. I am happy about the decision to choose this brand because of its environmental commitments.	0.88	0.78	0.49	0.80
S3. I believe that it is the right thing to purchase this brand because of its environmental performance.	0.92	0.77	0.59	0.83
S4. Overall, I am glad to buy this brand because of it is environmental friendly.	0.76	0.85	0.78	0.81
Green Trust				
T1. I feel that this brand's environmental commitments are generally reliable.	0.85	0.71	0.71	0.78
T2: I feel that this brand's environmental performance is generally dependable.	0.88	0.68	0.74	0.79
T3: I feel that this brand's environmental argument is generally trustworthy.	0.84	0.81	0.74	0.82
T4. This brand keeps promises and commitments for environmental protection.	0.73	0.71	0.69	0.74
Green Brand Equity				
BE1. It makes sense to buy this brand instead of other brands because of its environmental commitments, even they are the same.	0.80	0.75	0.75	0.69
BE2. Even if another brand has the same environmental features as this brand, I would prefer to buy this brand.	0.91	0.76	0.61	0.82
BE3. If there is another brand's environmental performance as good as this brand's I would prefer to buy this brand.	0.92	0.83	0.59	0.85
BE4. If the environmental concern of another brand is not different from that of this brand in any way, it seems smarter to purchase this brand.	0.88	0.69	0.58	0.79
Green Purchase Intention				
PI1: I am willing to buy this white goods from this brand in the future because of its environmental performance	0.90	0.90	0.79	0.88
PI2: I plan to purchase white goods from this brand because of its environmental concern.	0.88	0.88	0.80	0.87
PI3. I will make effort to buy this white goods brand because of it is environmentally friendly.	0.94	0.88	0.78	0.90
WOM Intentions				
WOM1. I encourage my friends and relatives to buy this brand.	0.86	0.78	0.77	0.85
WOM2. If someone is looking for white goods I generally advise him/her to buy this brand.	0.92	0.86	0.68	0.86
WOM3. I say positive things about this green brand.	0.90	0.78	0.73	0.81
Willingness to Pay Premium				
WTP1. I am willing to spend extra in order to buy this environmental friendly white goods brand.	0.86	0.83	0.78	0.85
WTP2. It is acceptable to pay premium to buy this white goods brand because of its environmental performance.	0.93	0.90	0.72	0.86
WTP3. I am willing to pay more to buy this green brand because of its environmental functions.	0.90	0.87	0.87	0.89
Measurement Model Fit İndexes				
Turkey: χ^2/df: 489.8/174 = 2.81 CFI = 0.95 IFI = 0.95 RMSEA = 0.08				
Finland: χ^2/df: 529.8/168 = 3.15 CFI = 0.90 IFI = 0.90 RMSEA = 0.09				
Pakistan: χ^2/df: 343.7/173 = 1.98 CFI = 0.92 IFI:0.92 RMSEA = 0.07				
Overall: χ^2/df: 662.3/174 = 3.81 CFI = 0.96 IFI = 0.96 RMSEA = 0.06				

Notes: df, degrees of freedom; CFI: Comparative Fit Index; IFI: Incremental Fit Index; RMSEA: Root Mean Square Error of Approximation

$2300, 17.6% have income level $2301 to $3850, 14.1% have income level $3851 to $5400, 13.3% have income level $7001 to $9000.

Data collection and sample in Pakistan

To extract the opinions of Pakistani respondents, first we educated respondents about green goods in general and then specifically about the usefulness of using green white goods. After in-depth evaluation of their knowledge of those products, the study questionnaire was circulated during the three month period (i.e. June, July and August 2013) among 500 respondents using the convenience sampling technique. Two methods, an e-mail and field researcher, were used to distribute and collect the data in the capital city Islamabad, and a big city Lahore. Out of the total only 200 respondents, that comprises 40% of the survey, have completed the questionnaires which were further analyzed.

Table 2 Average Variance Extracted, Composite Reliability and Cronbach α

Countries	Turkey			Finland			Pakistan			Overall Sample		
Constructs	AVE	CR	α	AVE	CR	α	AVE	CR	α	AVE	CR	α
Green Satisfaction	0.70	0.90	0.90	0.63	0.87	0.87	0.46	0.77	0.77	0.64	0.94	0.87
Green Trust	0.68	0.90	0.89	0.53	0.82	0.77	0.52	0.81	0.81	0.61	0.86	0.86
Green Brand Equity	0.77	0.93	0.93	0.58	0.77	0.82	0.41	0.73	0.78	0.87	0.62	0.86
Green Purchase Intention	0.82	0.93	0.93	0.78	0.91	0.91	0.62	0.90	0.83	0.91	0.78	0.91
WOM Intentions	0.80	0.92	0.92	0.65	0.85	0.81	0.53	0.77	0.80	0.71	0.88	0.88
Willingness to Pay Premium	0.80	0.92	0,92	0.77	0.90	0.89	0.63	0.84	0.83	0.75	0.89	0.90

Notes:CR: Composite Reliability, AVE: Average Variance Extracted, α: **Cronbach α** CR: $(\sum \text{standardized loadings})^2/(\sum \text{standardized loadings})^2+(\sum \text{indicator measurement error})$, AVE: $(\sum \text{squared standardized loadings})/(\sum \text{squared standardized loadings})+(\sum \text{indicator measurement error})$.

Table 3 Construct intercorrelations (Turkey)

	(1)	(2)	(3)	(4)	(5)	(6)
1. Green satisfaction	1.00					
2. Green trust	0.78	1.00				
3. Green brand equity	0.72	0.68	1.00			
4. Purchase intentions	0.79	0.72	0.79	1.00		
5. WOM intentions	0.75	0.78	0.73	0.82	1.00	
6. Willingness to pay	0.36	0.36	0.42	0.40	0.43	1.00

Table 4 Construct intercorrelations (Pakistan)

	(1)	(2)	(3)	(4)	(5)	(6)
1. Green satisfaction	1.00					
2. Green trust	0.78	1.00				
3. Green brand equity	0.77	0.83	1.00			
4. Purchase intentions	0.68	0.82	0.76	1.00		
5. WOM intentions	0.63	0.77	0.82	0.74	1.00	
6. Willingness to pay	0.42	0.48	0.55	0.51	0.48	1.00

According to demographic characteristics of Pakistani sample about 58.5% were male. Overall, 56% were married, 19.5% were between the ages 19 and 25, 44.5% were between the ages 26 and 35, 14.5% were between the ages of 36 to 45. According to education, 44% were graduates. Income level of respondents varies, for example, 13.5% have income level $150 to $250, 27% have income level $251 to $350, 10% have income level $351 to $390, and the majority of respondents, 39% have income level $391 and above.

Analysis and results

Measurement model

Data were analyzed with two-step approach suggested by Anderson and Gerbing (1988). First, 21-item, 6-factor, covariance structure measurement model with confirmatory factor analysis, measurement model's construct validity, and reliability was evaluated by confirmatory factor analysis, and then hypotheses were tested with structural equations modeling. Goodness of fit indexes were evaluated to assess the measurement model's adjustments to the obtained data. Confirmatory factor analysis results for overall fit for both three samples (Turkey, Finland and Pakistan and overall sample) are presented in Table 1.

The confirmatory model's fit indices were acceptable (Arbuckle, 2006). For evaluating construct validity convergent and discriminant validity of relevant constructs was analyzed. To assess convergent validity standardized regression coefficients were evaluated for each of the relevant constructs. The standardized regression coefficients for all constructs item values were all significant and most of them were above the suggested level of 0.50 for both three samples providing evidence of convergent validity (Edward *et al*., 2012, p. 160). In Table 2, the average variance extracted for the constructs regarding with three samples is given. For Turkey, Finland and overall sample, all of the constructs' average variance extracted (AVE) values are above the suggested level of 0.50 (Fornell and Larcker, 1981). Support for convergent validity is also demonstrated by the suggested AVE for all five constructs regarding to these samples. Conversely, AVE values of Pakistan sample two constructs namely green satisfaction and green trust were slightly below 0.50. Due to significant standardized coefficients for these two constructs we evaluate that these two constructs have sufficient convergent validity.

To achieve discriminant validity, construct correlations should be below 0.85 (Kline, 1998, p. 60). Correlations between constructs for Turkey, Finland, Pakistan and overall sample are presented in Tables (3–6) respectively. As a result discriminant validity of the measurement model was proved.

For evaluating the reliability, Cronbach α and composite reliability (CR) statistics were used regarding with three country samples and overall sample (Fornell and Larckel, 1981). Reliability values for each scale are depicted in Table 2. The values for each of the constructs for three samples are above the suggested level of 0.70 (Hair *et al*., 1998 p. 612), demonstrating that all constructs are reliable.

Structural model

After evaluating the measurement model in terms fit indices, validity and reliability, the proposed hypotheses were tested with structural equations modeling using maximum-likelihood estimation. The results of the structural model for the sample in Turkey are presented in Figure 2. Fit statistics of this model are acceptable (χ^2/df: 555.3/180 = 3.1, CFI = 0.94, IFI = 0.94,

RMSEA = 0.08). According to the squared multiple correlations, the model explained 65% of the variance in green trust, 56% in green brand equity, 73% purchase intentions, 72% in word-of-mouth intentions and 20% in willingness to pay premium. The results of the structural model for the sample in Turkey are presented in Figure 2.

According to Figure 2, green satisfaction has a positive effect on both green trust and green brand equity supporting hypothesis 1 ($\gamma = 0.81$, $P < 0.001$) and hypothesis 2 ($\gamma = 0.54$, $P < 0.001$). Consistent with hypothesis 3, green trust positively affects green brand equity ($\beta = 0.\ 25$, $P < 0.001$). In addition, the results of the structural model revealed that green trust positively related to both purchase intentions ($\beta = 0.40$, $P < 0.001$), word-of-mouth intentions ($\beta = 0.55$, $P < 0.05$) and willingness to pay premium ($\beta = 0.16$, $P < 0.05$) providing support to hypothesis 4, hypothesis 5 and hypothesis 6 respectively. The results of the structural model also revealed that, green brand equity positively affects both purchase intentions ($\beta = 0.53$, $P < 0.001$), word-of-mouth intentions ($\beta = 0.37$, $P < 0.001$) and willingness to pay premium ($\beta = 0.31$, $P < 0.001$). Thus, hypothesis 7, 8 and 9 were all accepted.

Figure 3 demonstrates the fit indexes of structural models for Finland sample. Overall fit statistics of this model provided adequate fit (χ^2/df: 554.4/174: 3.2, CFI = 0.90, IFI = 0.90, RMSEA = 0.09). In addition, the model explained 62% of the variance in green trust, 73% in green brand equity, 71% purchase intentions, 68% in word-of-mouth intentions and 45% in willingness to pay premium. The results of the structural model for Finland sample are shown in Figure 3.

With respect to Figure 3, green satisfaction has a positive effect on both green trust and green brand equity, supporting, hypothesis 1 ($\gamma = 0.77$, $P < 0.001$) and hypothesis 2 ($\gamma = 0.47$, $P < 0.001$). Consistent with hypothesis 3, positive relationship was found between green trust and green brand equity ($\beta = 0.39$, $P < 0.001$). The results also revealed that green trust is positively related to purchase intentions ($\beta = 0.60$, $P < 0.001$) and word-of-mouth intentions $\beta = 0.28$, $P < 0.001$ supporting to hypothesis 4 and hypothesis 5 respectively. Conversely, the effect of green trust on willingness-to pay a premium ($\beta = 0.01$, $P > 0.05$) is not significant. Thus, hypothesis 6 was not supported. The results of the structural model also revealed that, green brand equity positively associated with both purchase intentions ($\beta = 0.30$, $P < 0.05$), word-of-mouth intentions ($\beta = 0.\ 59$, $P < 0.05$) and willingness to pay premium ($\beta = 0.59$, $P < 0.05$). Thus, hypothesis 7, 8 and 9 were all supported.

According to the fit indexes of a structural model for Pakistan sample which is presented in Figure 4 suggests that the fit of the model is acceptable (χ^2/df: 555.3/180 = 3.1, CFI = 0.94, IFI = 0.94, RMSEA = 0.08). According to the squared multiple correlations, the model explained 60% of the variance in green trust, 73% in green brand equity, 72% purchase intentions, 71% in word-of-mouth intentions and 32% in willingness to pay premium.

According to Figure 4, green satisfaction has a positive effect on both green trust and green brand equity, supporting hypothesis 1 ($\gamma = 0.78$, $P < 0.001$) and hypothesis 2 ($\gamma = 0.28$, $P < 0.001$). Consistent with hypothesis 3, positive relationship was found between green trust and green brand equity ($\beta = 0.62$, $P < 0.001$). The results also revealed that green trust is positively related to purchase intentions ($\beta = 0.55$, $P < 0.001$) supporting to hypothesis 4. Conversely, the effect of green trust on both word-of-mouth intentions ($\beta = 0.31$, $P > 0.05$) and willingness-to pay a premium ($\beta = 0.07$, $P > 0.05$) is not significant. Thus, hypothesis 5 and hypothesis 6 were not supported. In addition, the results of the structural model also revealed that, green brand equity positively contributes to both purchase intentions ($\beta = 0.33$, $P < 0.05$), word-of-mouth intentions ($\beta = 0.56$, $P < 0.05$) and willingness to pay

Table 5 Construct intercorrelations (Finland)

	(1)	(2)	(3)	(4)	(5)	(6)
1. Green satisfaction	1.00					
2. Green trust	0.74	1.00				
3. Green brand Equity	0.74	0.74	1.00			
4. Purchase intentions	0.78	0.80	0.72	1.00		
5. WOM intentions	0.70	0.73	0.78	0.64	1.00	
6. Willingness to pay	0.55	0.52	0.62	0.54	0.62	1.00

Table 6 Construct intercorrelations (Overall Sample)

	(1)	(2)	(3)	(4)	(5)	(6)
1. Green satisfaction	1.00					
2. green trust	0.79	1.00				
3. Green brand equity	0.76	0.72	1.00			
4. Purchase intentions	0.80	0.77	0.79	1.00		
5. WOM intentions	0.77	0.79	0.79	0.77	1.00	
6. Willingness to pay	0.48	0.47	0.56	0.51	0.55	1.00

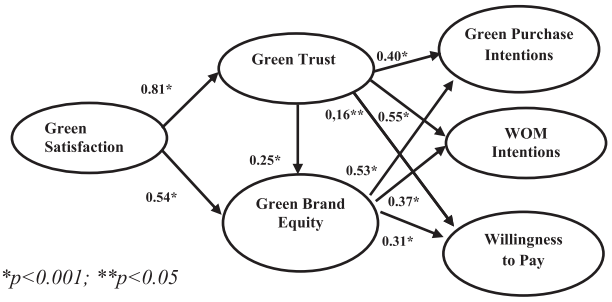

Figure 2 Structural model results (Turkey) * $P < 0.001$; ** $P < 0.05$

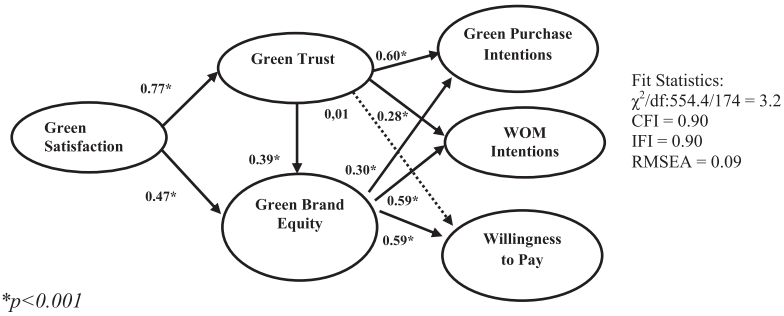

Figure 3 Structural model results (Finland)
** $P < 0.001$*

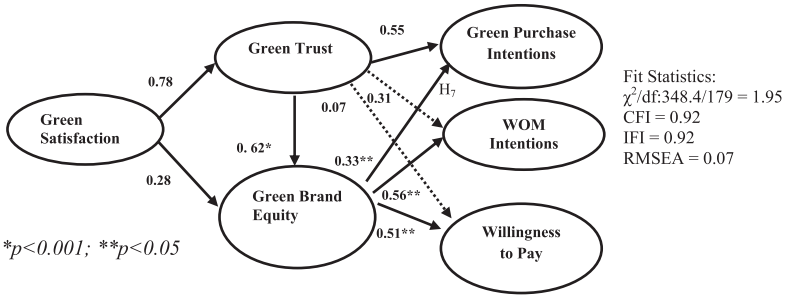

Figure 4 Structural model results (Pakistan)
** $P < 0.001$; ** $P < 0.05$*

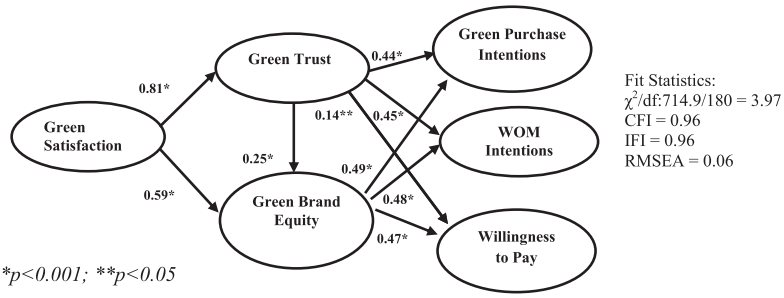

Figure 5 Structural model results (Overall Sample) ** $P < 0.001$; ** $P < 0.05$*

premium ($\beta = 0.51$, $P < 0.05$) supporting hypotheses 7, 8 and 9 respectively.

Figure 5 illustrates structural model results for overall sample. Fit statistics of this model are acceptable (χ^2/df: 714.9/180 = 3.97, CFI = 0.96, IFI = 0.96, RMSEA = 0.06). According to the squared multiple correlations, the model explained 66% of the variance in green trust, 64% in green brand equity, 74% purchase intentions, 75% in word-of-mouth intentions and 34% in willingness to pay premium.

With respect to Figure 5, green satisfaction has a positive effect on both green trust and green brand equity supporting hypothesis 1 ($\gamma = 0.81$, $P < 0.001$) and hypothesis 2 ($\gamma = 0.59$, $P < 0.001$). The results of the structural model also revealed that, green trust positively affects green brand equity supporting to hypothesis 3 ($\beta = 0.25$, $P < 0.001$). In addition, the results of also revealed that green trust positively related to both purchase intentions ($\beta = 0.44$, $P < 0.001$), word-of-mouth intentions ($\beta = 0.45$, $P < 0.05$) and willingness to pay premium ($\beta = 0.14$, $P < 0.05$) providing support to hypothesis 4, hypothesis 5 and hypothesis 6 respectively. Consistent with hypothesis 7, 8 and 9, green brand equity positively affects both purchase intentions ($\beta = 0.49$, $P < 0.001$), word-of-mouth intentions ($\beta = 0.48$, $P < 0.001$) and willingness to pay premium ($\beta = 0.47$, $P < 0.001$).

Discussion and implications

Three main contributions emerged from this study. First, this study contributes to the theory of reasoned action (Ajzen and Fishbein, 1980), by introducing a conceptual framework which reveals green satisfaction, green trust and green brand equity as antecedents of behavioral intentions. Second, unlike most previous studies in the green marketing literature, behavioral intentions were measured with three subdimensions, including green purchase intentions, word-of-mouth intentions and willingness to pay, to gain additional insights. Third, to the best of our knowledge, to date, no study has examined antecedents of behavioral intentions towards green products in a cross-country

context. Therefore, this study contributes to the green marketing literature by revealing similarities and differences between Turkey, Finland and Pakistan.

The empirical results from three countries revealed a positive relationship between green satisfaction and green trust supporting Kang and Hur (2012) and Chen and Chang (2012). In addition, the findings also revealed that green trust contributes to green brand equity, which is consistent with Chen (2010). This implies that past experience with green products may determine brand trust and brand equity accordingly. It was also found that the effects of green brand equity on behavioral intentions were consistent for three countries.

Conversely, this study finds out and demonstrates a different role of of green trust in behavioral intentions of consumers across the selected countries. The empirical results reveal that for Turkey sample, purchase, word-of-mouth intentions and willingness to pay are influenced by green trust regarding with green white goods. It means that with green brand equity, green trust also plays an important role in enhancing behavioral intentions towards green white goods. Results of Finland are relatively different with respect to consumers' willingness to pay premium; however, their green purchase and word-of-mouth intentions are positively affected by green brand equity and their green trust. It shows that Finnish consumers do not compromise to pay more for green white goods. This implies that green trust would not be sufficient for consumers willingness to pay for green white goods. In other words, consumers in Finland emphasize importance in green brand equity regarding with willingness to pay for green white goods. In this context, consumers may evaluate different competing brands and make decision for giving higher prices if the brand provide high brand equity.

Conversely, the behavioral intentions of consumers in Pakistan are different than both consumer in Turkey and Finland. For example, data results figured out that, Pakistani consumers' intention to purchase is effectively influenced by green trust and green brand equity, but their word of mouth intentions and willingness to pay more are not significantly influenced by green trust. It means that for consumers in Pakistan, only green trust would not be sufficient for consumers to communicate about green white goods and willingness to pay more for these products.

Considering overall sample, findings imply that green satisfaction, green trust and green brand equity are all antecedents of behavioral intentions regarding with green white goods. Results of this study have direct implications for green white goods manufacturers in these three countries. For example, understanding the green purchase intentions, word of mouth intentions, and willingness to pay intentions of consumers, companies should focus on green satisfaction in order to foster green brand trust in supporting of green brand equity. For example, if customers expected performance (e.g., energy-saving, environmental friendliness, durability) of the green product not occurs they will probably switch another product or the brand. Thus, company claims about green products should be reasonable and real. In other words, green marketing arguments should be communicated to customers in a coherent and truthful way, to avoid customer skepticism or disbelief. In addition, generating the well-being of society communicating by the products of a company can be helpful in creating more receptive societal response.

Some consumers may evaluate green products as less quality among nongreen ones. Therefore, companies should provide proofs about their green products that have the same quality specifications of the nongreen ones and green products prices should be reasonable in order them to be purchased more frequently comparing with nongreen products. Companies should also pay attention of the green product quality. In the product development process, products' ability to solve customers' fundamental problems should not be ignored. Consequently this may lead to increase in green satisfaction and green trust.

Commitment-trust theory (Morgan and Hunt, 1994) emphasizes that relationship commitment and trust is fundamental for successful relationship marketing. Hence, investments on relationship marketing with monitoring satisfaction levels and managing customer loyalty programs would help to enhance consumers satisfaction levels and consequently increase green trust and green brand equity. The findings also imply that to sell their green products charging with higher prices and developing positive word-of-mouth intentions in the global marketplace, companies should primarily focus on building green brand equity. The greater the ability of the company to project and position its message about its concern for the environment in the minds of consumers using advertisement, the greater will be its success and corporate reputation. This may lead to enhance green brand equity. Companies with high green brand equity may benefit brand extensions with the increase in sale profits and market shares (Keller, 2001, p. 15). In other words, green consumers are more likely to purchase new green products of the high green brand equity brands. As a result, manufacturing environmental friendly products has become opportunity for businesses in order to achieve competitive advantage.

Compared to traditional goods, green white goods manufacturing and marketing increase costs. Consumers may not understand how companies incur costs to manufacture green white goods. To motivate consumers to pay premium, companies should create consumers' awarenss about the long term financial and environmental benefits of using green white goods.

In conclusion, if companies target to increase their profits and market shares, they should consider green satisfaction, green trust and green brand equity in implementing long-term green marketing strategies.

Limitations and recommendations for future research

Despite theoretical and managerial contributions there are some limitations in this study. First, to obtain data convenience sampling was used. To remedy this effect probability sampling methods can be used to collect data for more generable results. Second, only three countries (Turkey, Finland and Pakistan) were chosen for the field study. Thus, the results of this study represent only the sample from these countries. To know green behavioral intentions more in depth, more than three both developed and developing countries should be studied in the future studies. Third, White goods were chosen for the object of this study. Further studies developed could benefit other

green product categories or services. Fourth, in this study, the hypotheses were tested with cross-sectional survey data. Hence, this study cannot determine the dynamic change of green satisfaction, green trust, green brand equity, green purchase intentions, word of mouth intentions, and willingness to pay in the different stages through longitudinal data. Therefore, setting a longitudinal study to test the data can give better results in future studies on green white goods.

It is not enough to simply investigate the relationship between most important determinants of green behavioral intentions of consumers. The ever changing societal needs and wants has changed consumers' attitude and habits. Therefore, considering climate responsibility research from the direction of psychological and social perspectives can elevate consumers' intentions to behave proactively in purchasing and pay more for climate friendly products.

The role of green brand equity in willingness to pay more for green, white goods of customers in three countries has been noticed in our research, which can bring a logical reasoning for researchers to work on it in future. Equally important, in future green brand quality variable must be incorporated in current model between green trust, green brand equity and willingness to pay, word of mouth, and green purchase intention relationships.

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REFERENCES

Ahmad, H., Shah, I.A., & Ahmad, K. (2010) Factors in Environmental Advertising Influencing Consumer's Purchase Intention. *European Journal of Scientific Research*, **48**, 217–226.

Ailawadi, K.L., Lehmann, D.R. & Neslin, S.A. (2003) Revenue premium as an outcome measure of brand equity. *Journal of Marketing*, **67**, 1–17.

Ajzen, I. & Fishbein, M. (1980) *Understanding Attitudes and Predicting Social Behavior*. Prentice-Hall, Englewood Cliffs, NJ.

Anderson, J.C. & Gerbing, D. (1988) Structural equation modeling in practice: a review and recommended two-step approach. *Psychological Bulletin*, **103**, 411–423.

Anderson, R.E. & Srinivasan, S.S. (2003) E-satisfaction and e-loyalty: a contingency framework. *Psychology and Marketing*, **20**, 123–138.

Anselmsson, J.U. & Persson N. (2007) Understanding price premiums for grocery products: a conceptual model of consumer-based brand equity. *Journal of Product and Brand Management*, **16**, 401–414.

Arbuckle, J.L. (2006) *Amos 7.0 User's Guide, Amos Development Corporation*. Spring House, PA.

Baumann, C., Burton, S., Eliott, G. & Kehr, H.M. (2006) Prediction of attitude and behavioral intentions in retail banking. *International Journal of Bank Marketing*, **25**, 102–116.

Brown, T., Barry, T.E., Dacin, P.A. & Gunst, R.F. (2005) Spreading the word: investigating antecedents of consumers' positive word-of-mouth intentions and behaviors in a retailing context. *Journal of the Academy of Marketing Science*, **33**, 123–138.

Caceres, R.C. & Paparoidamis, N.G. (2007) Service quality, relationship satisfaction, trust, commitment and business-to-business loyalty. *European Journal of Marketing*, **41**, 836–867.

Chaudhuri, A. & Holbrook, M.B. (2001) The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of Marketing*, **65**, 81–93.

Chen, T.B. & Chai, L.T. (2010) Attitude towards environment and green products: consumer perspective. *Management Science and Engineering*, **4**, 27–39.

Chen, Y.-S. (2010) The drivers of green brand equity: green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, **93**, 307–319.

Chen, Y.-S. (2011) Green organizational identity: sources and consequence. *Management Decision*, **49**, 384–404.

Chen, Y.-S. & Chang, C.-H. (2012) Enhance green purchase intentions: the roles of green perceived value, green perceived risk, and green trust. *Management Decision*, **50**, 502–520.

Chen, Y.-S. & Chang, C.-H. (2013) Towards green trust: The influences of green perceived quality, green perceived risk, and green satisfaction. *Management Decision*, **51**, 63–82.

Chiou, J. & Droge, C. (2006) Service quality, trust, specific asset investment, and expertise: direct and indirect effects in a satisfaction-loyalty framework. *Journal of the Academy of Marketing Science*, **3**, 613–627.

Cobb-Walgren, C.J., Ruble, C.A. & Donthu, N. (1995) Brand equity, brand preference, and purchase intent. *Journal of Advertising*, **24**, 25–40.

D'Souza, C., Taghian, M., Lamb, P.P. & Peretiaktos, R. (2006) Green products and corporate strategy: an empirical investigation. *Society and Business Review*, **2**, 144–157.

Delgado-Ballester, E. & Munuera-Alemán, J.L. (2005) Does brand trust matter to brand equity. *Journal of Product & Brand Management*, **14**, 187–196.

Devi, J.T., Pudaruth, S., & Awootar, D. (2011) Exploring employees' views and engagement on green sustainability in the food and beverage sector of Mauritius. *Asian Journal of Research in Business Economics and Management*, **1**, 305–319.

Edward, M., George, B.P. & Sarkar, S.K. (2012) The impact of switching costs upon the service quality-perceived value-customer satisfaction-service loyalty chain: a study in the context of cellular services in India. *Services Marketing Quarterly*, **31**, 151–173.

Fornell, C. & Larcker, D.F. (1981) Evaluating structural equation models with unobservable variables and measurement errors. *Journal of Marketing Research*, **18**, 39–50.

Gallastegui, I.G. (2002) The use of eco-labels: a review of literature. *European Enviroment*, **12**, 316–331.

Genesan, S. (1994) Determinants of long-term orientation in buyer-seller relationship. *Journal of Marketing*, **58**, 1–9.

Hair, J.F., Anderson, R.E., Tahtam, R.L. & Black, W.J. (1998) *Multivariate Data Analysis*, 5th edn. Prentice Hall, NJ.

Harrison-Walker, L.J. (2001) The measurement of word-of-mouth communication and an investigation of service quality and customer commitment as potential antecedents. *Journal of Service Research*, **4**, 60–75.

Homburg, C., Koschate, N. & Hoyer, W.D. (2005) Do satisfied customers really pay more? a study of the relationship between customer satisfaction and willingness to pay. *Journal of Marketing*, **69**, 84–96.

Ibanez, L. & Grolleau G. (2008) Can ecolabeling schemes preserve the environment? *Environmental and Resource Economics*, **40**, 233–249.

Lee, J.-S., Hsu, L.-T(J)., Han, H. & Kim, Y. (2010) Understanding how consumers view green hotels: how a hotel's green image can influence behavioural intentions. *Journal of Sustainable Tourism*, **18**, 901–914.

Jung, J., & Sung, E. (2008) Consumer-based brand equity comparisons among Americans and South Koreans in the USA and South Koreans in Korea. *Journal of Fashion Marketing and Management*, **12**, 24–35.

Kang, S. & Hur, W.-M. (2012) Investigating the antecedents of green brand equity: a sustainable development perspective. *Corporate Social Responsibility and Environmental Management*, **19**, 306–316.

Keller, K.L. (1993) Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, **57**, 1–22.
Keller, K.L. (2003) Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, **57**, 1–22.
Kim, H.-B., & Kim, W.G. (2005) The relationship between brand equity and firms 'performance in luxury hotels and chain restaurants. *Tourism Management*, **26**, 549–560.
Kim, H.-B., Kim, W.G. & An, J.A. (2003) The effect of consumer-based brand equity on firms' financial performance. *Journal of Consumer Marketing*, **20**, 335–351.
Kim, W.G. & Kim, H.-B. (2004) Measuring customer-based restaurant brand equity. *Cornell Hotel and Restaurant Administration Quarterly*, **45**, 115–131.
Kline, R. B. (1998) *Principles and Practice of Structural Equation Modeling*. The Gilford Press, NJ.
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**, 503–520.
Lee, K. (2009) Gender differences in Hong Kong adolescent consumers' green purchasing behavior. *Journal of Consumer Marketing*, **26**, 87–96.
McDonald, S. & Oates, C.J. (2006) Sustainability: consumer perceptions and marketing strategies. *Business Strategy and the Environment*, **15**, 157–170.
Mohanasundaram, V. (2012) Green marketing – challenges and opportunities. *International Journal of Multidisciplinary Research*, **2**, 66–73.
Moorman, C., Deshpandé, R., & Zaltman, G. (1993) Factors Affecting Trust in Market Research Relationships, *Journal of Marketing*, **57**, 81–101.
Morgan, R.M. & Hunt, S.D. (1994) The commitment-trust theory of relationship marketing, *Journal of Marketing*, **58**, 20–38.
Netemeyer, R.G., Krishnan, B. Pullig., C., Wang, G. Yagci, M., Dean, D. & Wirth, F. (2004) Developing and validating measures of facets of customer-based brand equity, *Journal of Business Research*, **57**, 209–224.
Oliver, R. (1981) Measurement and evaluation of satisfaction process in retail settings, *Journal of Retailing*, **57**, 25–48.
Oliver, R.L. (1999) Whence consumer loyalty?, *Journal of Marketing*, **63**, 33–44.
Pappu, R. & P. Quester. (2006) Does customer satisfaction lead to improved brand equity? An empirical examination of two Categories of retail brands, *Journal of Product and Brand Management*, **15**, 4–14.
Pappu, R., Quester, P.G. & Cooksey, R.W. (2005) Consumer-based brand equity: improving the measurement-empirical evidence, *Journal of Product & Brand Management*, **14**, 143–154.
Pickett-Baker, J. & Ozaki, R. (2008) Pro-environmental products: marketing influence on consumer purchase decision. *Journal of Consumer Marketing*, **25**, 281–293.
Rahbar, E. & Wahid, N.A. (2011) Investigation of green marketing tools' effect on consumers' purchase behavior, *Business Strategy Series*, **12**, 73–83.
Rajagopal (2007), Buying decisions towards organic products: an analysis of customer value and brand drivers. *International Journal of Emerging Markets*, **2**, 236–251.
Ranaweera, C. & Prabhu, J. (2003) The influence of satisfaction, trust and switching barriers on customer retention in a continuous purchases setting, *International Journal of Service Industry Management*, **14**, 374–395.
Reast, J.D. (2005) Brand trust and brand extension acceptance: The relationship. *Journal of Product & Brand Management*, **14**, 4–13.
Simon C.J. & Sullivain, M.W. (1993) The Measurement and Determinants of Brand Equity: A Financial Approach, *Marketing Science*, **12**, 28–52.
Shamdasani P., Chon-Lin, G.O. & Richmond, D. (1993) Exploring green consumers in an oriental culture: Role of personal and marketing mix factors, *Advances in Consumer Research*, **20**, 488–493.
Taylor, S.A., Celuch, K. & Goodwin, S. (2004). The importance of brand equity to customer loyalty. *Journal of Product & Brand Management*, **13**, 217–227.
The World Bank, (2014). *2014 World Development Indicators*, Washington DC., USA.
Tolba, A.H. & Hassan, S.S. (2009) Linking customer-based brand equity with brand market performance: a managerial approach, *Journal of Product & Brand Management*, **18**, 356–366.
Vázquez , Rodolfo, Del Río, A. B. & Iglesias, V. (2002) Consumer-based Brand Equity: Development and Validation of a Measurement Instrument, *Journal of Marketing Management*, **18**, 27–48.
Vogel, V., Evanschitzky, H. & Ramaseshan, B. (2008) Customer equity drivers and future Sales, *Journal of Marketing*, **72**, 98–108.
Vermillion, L.J. & Perat, J. (2010) Green marketing: Making sense of the situation, *Proceedings of the Academy of Marketing Studies*, **15**, 68–72.
Wang, H., Wei, Y. & Yu, C. (2008) Global brand equity model: combining customer-based with product-market outcome approaches, *Journal of Product & Brand Management*, **17**, 305–316.
Washburn, J.H. & Plank, R.E. (2002) Measuring brand equity: an evaluation of a consumer-based brand equity scale, *Journal of Marketing Theory and Practice*, **10**, 46–62.
Hur, W.-M., Kim, Y. & Kyungdo Park. (2013) Assessing the effects of perceived value and satisfaction on customer loyalty: a 'green' perspective, *Corporate Social Responsibility and Environmental Management* **20**, 146–156.
Wood, L. (2000) Brands and brand equity: definition and management, *Management Decision*, **38**, 662–669.
Yoo, B., Donthu, N. & Lee, S. (2000) An Examination of Selected Marketing Mix Elements and Brand Equity, *Journal of the Academy of Marketing Science*, **28**, 195–211.
Yoo, B. & Donthu, N. (2001) Developing and validating a multidimensional consumer-based brand equity scale, *Journal of Business Research*, **52**, 1–14.
Young, W., Hwang, K., McDonald, S. & Caroline J. Oates, C.J. (2010) Sustainable consumption: green consumer behaviour when purchasing products, *Sustainable Development*, **18**, 20–31.
Zacharias, M.L.B., Figueiredo, K.F. & Araujo, C.A.S. (2009) The influence of banking service customers' satisfaction level on the perception of switching costs and on behavioral loyalty, *Journal of Operations and Supply Chain Management*, **2**, 1–13.
Zeithaml, V.A., Berry, L. and Parasuraman, A. (1996), The behavioral consequences of service quality, *Journal of Marketing*, **60**, 31–46.

Duties or self-reliance: Motivational patterns in sustainable food consumption in vertically collectivistic and horizontally individualistic cultures

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Abstract

Culture plays an important role in forming consumers' sustainable consumption. Recently, new conceptions of cultural differences such as horizontal and vertical individualism vs collectivism (H/V IND-COL) have been introduced to the field of consumer research. In this research, the distinctions between vertical collectivism (VC-Pakistan) and horizontal individualism (HI-Finland) both were conceptually and empirically linked to life goals in an attempt to produce a fuller understanding of sustainable food consumption motivations. The means-end-chain (MEC) methodology, using a hard laddering technique, was harnessed to explore the motivational patterns for organic food consumption. Data results show that organic food choice motivations both converge and diverge between HI- and VC-cultures. The VC- and HI-culture life goals partly differentiated these patterns. The main contribution of this study relates to considering VC and HI cultural values, which in the past has received lesser attention in the context of sustainable consumption.

Keywords: Culture, Vertical collectivism, Horizontal individualism, Consumption motivation, Sustainability, Organic food

Introduction and background

Extant research provides evidence that collective and individual cultural motives are potential reasons behind consumers' sustainable consumption. Consumers in individualistic (IND) countries show egocentric environmental concerns, whereas consumers from traditional collectivistic (COL) countries show altruistic environmental behaviours (McCarty & Shrum, 2001; Milfont, Duckitt, & Cameron, 2006). However, polarized opinions exist in the research that assume sustainable consumption is either individualistic/egoistic or collective/altruistic. For example, some researchers suggest that collective interests instead of individual ones appear to increase consumers' green consumption (Kim & Choi, 2005). Others argue that sustainable consumption is more likely when it is believed to provide individual/self-benefits (Grebitus & Dumortier, 2015; De Groot & Steg, 2008).

Because consumers around the world may have different interpretations of sustainable consumption, when consumers make sustainable choices, therefore their certain values conflict and may lack salience (Howell, 2013; van Zomeren, 2014). A consumer with a particular personal and social profile may be more concerned about the environment and therefore act on its behalf than a person only seeking IND and/or COL motives when choosing sustainable products (Gifford & Nilsson, 2014). Consumers may prefer either individualistic (e.g., pro-self) or collectivistic (e.g., pro-others) or both at the same time and have environmental or social motives (Mancha & Yoder, 2015; Gupta & Ogden, 2009). This means that forms of individualistic and collectivistic cultural values can be significantly different when it comes to consumers' pro-environmental behaviour.

The assumption that consumers' behaviour across IND cultures is purely egoistic and in COL cultures is altruistic perhaps represents partial perspectives about the consumption motives of consumers. As an example, organic food possesses different attributes that fulfil various consumption purposes of consumers beyond benefits to self and group/collective benefits (First & Brozina, 2009; Birch, Memery, & Kanakaratne, 2018; Oliver & Lee, 2010; Griskevicius, Tybur, & Bergh, 2010). For that reason, organic food characteristics may match a different kind of consumer needs and wants. One

may assume that the IND/COL cultural classification may help to capture the pro-self and collective sustainable motives of consumers but fail to capture social and other needs and wants that consumers pursue, for example, when consuming organic food. Accordingly, this study argues that the assumptions of IND/COL-based sustainable consumption research may not be suitable for explaining the practical implications of sustainable marketing theory and practice (McCarty & Shrum, 2001; Soyez, 2012).

Recently, a more refined development of IND/COL cultural differences, horizontal and vertical individualism versus collectivism (H/V IND-COL) cultural dimensions, has been introduced to the field of consumer research (Shavitt & Cho, 2016; Shavitt & Barnes, 2019). H/V IND-COL orientations predict different personal values, goals, normative expectations, and power concepts beyond the broader IND/COL dichotomy (Triandis, 1995). The primary argument of this study is that organic food may appeal to the egoistic and collective as well as to the hierarchical (social and environmental) and vertical (status and luxury) needs of consumers in IND/COL cultures; therefore, the H/V IND-COL cultural typology is more suitable in understanding this situation (Triandis, 1995; Shavitt et al, 2006). We incorporate the means end chain (MEC) methodology (Grunert & Valli, 2001). with the help of Kahle's (1983) list of values, to uncover the H/V IND-COL organic food motives of Finnish horizontal individualistic (HI) and Pakistani vertical collectivistic (VC) consumers (Nordfjærn, & Zavareh, 2016; Islam, 2004). MEC asserts and provides a framework to assess the existence of a close relationship between the consumer's choice and the values she/he seeks to satisfy (Dibley & Baker, 2001). Consumers make choices based on the consequences/benefits (C) of a product they consume because they believe that specific attributes (A) of a product will help them attain desired values (V) from those consequences (Gutman, 1982).

In the remainder of this article, we discuss the theoretical framework, the implied methodology, the findings and results, and the discussion and conclusions. Finally, we discuss the implications, study limitations, and future research recommendations.

Literature review and theoretical framework

Individualism and collectivism (IND/COL) versus horizontal and vertical individualism and collectivism (H/V IND-COL)

According to Hofstede (1980). people who possess individualistic values are likely to emphasize personal benefits and desires over those of the group, whereas collectivistic people tend to behave per social norms and emphasize group benefits and desires. More generally, the emphasis of individualistic societies is 'I' consciousness, such as emotional independence, autonomy, taking individual initiative, pleasure seeking, the right to privacy, the need for friendship, pleasure seeking, and financial security. On the other hand, the emphasis of collectivistic societies is 'we' consciousness, including emotional dependence, collective identity, sharing, group solidarity, group decisions, obligations, and duties (Chen & West, 2008).

At the broad level, IND and COL relates to Schwartz's (1992) model. For example, IND is related to individuals' personal concerns, such as self-enhancement and openness, and COL relates to values that serve collective concerns, such as self-transcendence and conservation (Hofstede, 2001). Researchers assume that the scores on Hofstede's dimensions for a given country indicate the characteristics of the people of that country (Venaik & Brewer, 2013). Accordingly, in the marketing and consumer research, individualistic (IND) versus collectivistic (COL) cultural values reflect pro-self/individualistic or pro-group/collective consumption assumptions (De Mooij & Hofstede, 2011). Particularly in the context of sustainable consumption research, many studies also consider Hofstede's IND/COL cultural value orientation as the long-standing theoretical foundation, concluding that consumers' environmental behaviour is driven by these two cultural orientations (McCarty & Shrum, 2001; Laroche et al., 2001; Soyez, 2012).

Contrary to IND versus COL, the H/V IND-COL cultural typology captures IND and COL as well as the status and hierarchical needs of people (Triandis & Gelfand, 1998). The H/V IND-COL typology resembles Fiske's (1992) framework of sociality, where communal sharing is equal to collectivism,

and market sharing is similar to individualism, whereas equality and authority look like horizontal versus vertical relationships (Vodosek, 2009). Horizontal-vertical differences can also be linked to Schwartz's personal values survey (SVS). SVS values, such as power, achievement, and conformity, bear a resemblance to the vertical dimension, whereas the horizontal dimension includes benevolence, self-direction, and the values of universalism (Oishi, Schimmack, Diener, & Suh, 1998; Shavitt et al., 2006). Triandis and Gelfand (1998) divided IND/COL-oriented countries as follows:

a) France, Great Britain (GB), and the United States (US) are vertical individualistic (VI), where people emphasize hierarchy, power, individual competition, and being different and notable;

b) the horizontal individualistic (HI) countries are Denmark, Norway, Sweden, and Australia, where people emphasize equality, independence, self-reliance, uniqueness;

c) the vertical collectivistic (VC) countries are India, Japan, and Korea, in which people are submissive; comply with authority; preserve unity; and prioritize group benefits, goals, and interests; and

d) the horizontal collectivistic countries (HC) are like Israel with the Israeli kibbutz, who emphasize equity, group commonality, sociability, and interdependence, without desiring special status.

H/V IND-COL societies are structured around specific dominant attitudes in the consumer behaviour field (Shavitt et al., 2006). For example, how consumers react to advertisements, brands, and service providers in the marketplace and how they respond to others and their needs are based on H/V IND-COL orientations (Shavitt et al., 2011). It has been found that VI-oriented consumers do not tolerate dishonesty and are status and brand conscious (Lu et al., 2011; Zhang & Nelson, 2016). On the other hand, HI-oriented people seek uniqueness and exhibit tolerance. Studies demonstrate that HI-oriented people share knowledge, show piecemeal judgments, have positive attitudes towards the environment, display interest in efforts that address food and nutritional practices that benefit people,

and live satisfied lives (Sandhu & Ching, 2014; Torres & Perez-Nebra, 2007; Cho et al., 2013; Parker and Grinter, 2014). Consumers with HC values display interest in cause-related marketing, show positive environmental attitudes, prefer products for religious reasons, and show leisure attitudes (Wang, 2014; Cho et al., 2013; Jamal & Sharifuddin, 2015; Wong et al., 2014). However, VC-oriented consumers are inclined to normative interpersonal influence, other-directed symbolism, pro-environmental behaviour, and nomophobia perceptions (Yi-Cheon Yim et al., 2014; Shukla, Singh, & Banerjee, 2015; Waylen et al., 2012; Arpaci, 2017).

Horizontal/vertical individualism and collectivism (H/V IND-COL) and sustainable consumption motives

The possible connection between H/V IND-COL and sustainable consumption can be drawn from earlier related research. For example, consumer research is not limited to the understanding of acquisitive processes, but it also involves socially responsible consumption (Webb, Mohr, & Harris, 2008), in which consumers are willing to take responsibility for the environmental impact of their purchases (Quazi, Amran & Nejati, 2016). A person with a personal and social profile will be more likely to be pro-environmental and act on behalf of the environment (Gifford & Nilsson, 2014). Cultural and consumer behaviour research has examined different social behaviours of consumers, such as choosing socially responsible brands and charitable donation behaviour (Winterich & Zhang, 2014; Torelli et al., 2012). These findings are consistent with earlier research on cultural differences in hierarchy and power dimensions that are similar to the H/V IND-COL cultural typology (Shavitt et al., 2006).

Consumer motivation to choose sustainable products across cultures may be egoistic, altruistic or something else, depending on the needs and preferences of consumers. Specifically, consumer food decisions are changing around the globe; therefore, it can be assumed that individuals may hold multiple values that become salient depending on how they consume organic food products (Padel & Foster, 2005). Sustainable food consumption means the consumption of food that is free from

chemicals and healthy to eat (First & Brozina, 2009). Since food choices involve negotiation by an individual to let food into his/her body (DuPuis, 2000), many intrinsic and extrinsic qualities are drivers that affect different types of consumer motivations to buy these products. The motives can be personal (such as taste and health) as well social (animal welfare, environmental impacts), financial (price and/or cost), functional (quality and safety), individual (personal and cultural values), and/or ethical (Aertsen et al., 2009; Vega-Zamora et al., 2014; Zakowska-Biemans, 2011; Papista & Krystallis, 2013; Barrena et al., 2015; Yazdanpanah & Forouzani, 2015; Jägel et al., 2012). Intrinsic qualities such as taste, quality, healthiness, appearance, freshness, and safety are egoistic or self-interest motivations, while extrinsic qualities such as increased food security and support for local agriculture and retailers are altruistic motivations (Birch et al., 2018). Consumers can also favour green or organic products to seek status or improve self-image or reputation (Oliver and Lee, 2010; Griskevicius et al., 2010). In the case of organic food, there can be competing and conflicting consumer desires, needs, and preferences (Lockie et al., 2002). Accordingly, it is important to know all the characteristics consumers seek when buying organic food products (Costa et al., 2014). Since the most critical decision a consumer can make to contribute to sustainability is buying organic food (McDonald et al., 2012), the choice of consumers is important throughout the organic production chain as far as promoting and pursuing sustainable consumption goals is concerned. The aforementioned literature begs the question of whether or not H/V IND-COL cultural values that encompass IND and COL as well vertical and horizontal (status and hierarchy) characteristics can shape different meanings consumers associate with the characteristics of organic food products (Shavitt & Barnes, 2019). Since there are egoistic, altruistic, and hierarchical/status characteristics associated with organic food consumption, the applicability and the suitability of H/V IND-COL cultural typology in consumer research may help to understand consumers' organic food motives in more detail across cultures than IND/COL. This study assumes that at the cultural level, when conditioning for organic food products takes place, consumers may choose these products for not

only self and collective benefits but also social and environmental reasons. Accordingly, the cultural characteristics embedded in the H/V IND-COL cultural values of consumers would coincide with the different relevant attributes of organic products that will eventually satisfy consumers' needs. Therefore, the H/V IND-COL typology provides the theoretical support that underlies this study.

Selecting HI and VC cultures and the possible connection of HI versus VC with organic food motives

In this study, the relationship between H/V IND-COL culture and organic food consumption with a focus on horizontal individualism (HI) and vertical collectivism (VC) is conceptually and empirically examined (Jakubanecs & Supphellen, 2016). The following two arguments support the decision to choose HI and VC cultures. First, in terms of pro-social behaviours such as giving to charity (cf. sustainable consumption). power distance, a concept related to the differences in verticality/hierarchy among cultures, has proved essential (Winterich & Zhang, 2014; Shavitt & Barnes, 2019). Second, as the review of Shavitt & Cho (2016) reveals, most empirical studies so far have addressed the influences of HI and VC on various consumption phenomena and interpersonal relationships. Scandinavian countries such as Denmark and Finland are often considered to represent HI cultures (Khatri, Tsang, & Begley, 2005). For example, Finns have been found to prefer to use solution-oriented approaches to conflict and do not express strong argumentativeness, defined as the predisposition of an individual in communication situations to advocate positions on controversial issues and to verbally attack the positions that other people take on these issues (Croucher et al., 2016). In turn, there is also a consensus that some East Asian cultures can be regarded as compatible with VC (Sivadas, Bruvold, & Nelson, 2008). According to Islam (2004). Pakistan's relatively high collectivist orientation—high propensity toward uncertainty avoidance, high power distance, and masculinity—largely account for many traditions and practices, including strict adherence to hierarchy, centralization, corruption, nepotism, and gender differentiation. These characteristics coalesce with the VC ideology to a great degree (Nordfjærn, & Zavareh, 2016; Shavitt et al., 2006).

Yet this is not to suggest that all consumers in one country share the same cultural values. It is known that distinct consumer segments within the same country can be identified based on their differences in cultural value preferences (e.g. Yoo, Donthu, & Lenartowicz, 2011). Organic food consumption motivations were selected as the focal target of empirical analysis because consumers evidently attach many meanings to it. Judging from well-established choice motives, organic foods can symbolize health, hedonism, environmental friendliness, safety, and animal welfare (Bauer, Heinrich, & Schafer, 2013). More recently, status symbolism has been connected to organic food choices (Costa, Zepeda, & Sirieix, 2014; Rana & Paul, 2017). Thus, organic foods can be chosen for reasons that are either consonant or dissonant with the HI- and VC-culture values (See Table 1.0).

TABLE 1 A typology for understanding the motivational complexities in organic food consumption congruent with HI- and VC-cultures

Organic food motives	**HI-congruent organic food motives**	**VC-congruent organic food motives**
Taste	Yes	No
Nutrition	Yes	No
Quality	Yes	Yes
Health	Yes	No
Safety	Yes	No
Animal welfare	No	Yes
Environmental friendliness	No	Yes
Reputation/status	No	Yes

Methodology

Means end chain (MEC)

In food consumption research, the means-end-chain (MEC) approach has been utilized to explore choice motivations (see for example Grunert & Valli, 2001; Zanoli & Naspetti, 2002; Russell et al., 2004). A means end chain (MEC) is a knowledge structure that links consumers' knowledge about product attributes with their personal knowledge about consequences and values (Zanoli & Naspetti, 2002). In general terms, it captures the hierarchical linkages between a product's intrinsic and/or extrinsic attributes (A or the 'means'). the subsequent use consequences (C) for the consumer, and associated personal values (V or the 'end') (Le Page et al., 2005; Lin & Fu, 2001). The A-C-V associations or ladders are often seen as illustrations of the basic drivers that motivate consumer behaviour and can be represented as hierarchical value maps (HVMs). According to Russell et al. (2004), MEC model commonly comprises six levels of abstraction: concrete versus abstract product attributes, functional versus psychosocial use consequences, and instrumental versus terminal life values. The consequences and especially the values can vary in their personal or social orientations (Kahle, Beatty, & Homer, 1986). The MEC data can be gathered either through personal interviews (so called 'soft laddering') or self-administrated questionnaires (so called 'hard laddering') (Botschen, Thelen, Pieters, 1999). The latter option was selected for this study as the data collection occurred in the middle of everyday consumption practices within real commercial surroundings, allowing no time for in-depth interviews. Moreover, this approach enables larger data sets and reduces interviewer bias (Jägel et al., 2012).

As in Grunert and Valli (2001), the hard laddering approach applied here included fabrication of a list of concrete/abstract product attributes (A), functional/psychosocial consequences (C), and instrumental/terminal values (V) prior to the data collection. This list was an important tool in producing the key data for the analysis. The development of the ACV list (see Table 2) for the purpose of this research was guided by prior organic food MEC studies (Zanoli and Naspetti, 2002;

Chrossohoidis & Krystallis, 2005; Padel & Foster, 2005; Grebitus & Dumortier, 2015). In practice, this means that the placement of ACV items into the concrete/abstract, functional/psycho-social, and instrumental/terminal categories followed the conventions set by previous studies. Using the MEC method, the findings obtained from the ACV chains obtained are utilized to reveal the possible connection between HI and VC cultural values and organic food motives.

TABLE 2 Pre-fabricated lists of attributes, consequences and values given to study participants

Concrete attributes	**Abstract attributes**	**Functional consequences**	**Psycho-social consequences**	**Instrumental values**	**Terminal values**
1) Environmental friendly	1) Chemical free	1) It is a healthy product	1) Makes me feel good	1) Provides fun, pleasure and enjoyment	1) I get a sense of social belonging
2) Price	2) Apparent freshness	2) It is nutritious	2) Consuming a quality food	2) Enhances my quality of life and security	2) Enhance my relations with others
3) Easy to prepare	3) Healthy	3) Good value for money	3) I get a sense of culture identification	3) Provides me with emotional fulfilment	3) I feel more respected by others
4) Expensive	4) Natural	4) Appetizing and enjoyable to eat	4) Enhances my social status	4) I feel more successful	4) I get a sense of self-fulfillment and accomplishment
5) Tasty	5) Better quality	5) I help to sustain local agriculture	5) Brings back memories		5) Gives me peace of mind and self-respect
6) Enhances animal welfare	6) Nutritional value	6) I help to protect environment	6) It is genuine		
7) Support for farmers	7) Prestige or status	7) I am well-informed	7) Regulates my health and of my family		
8) Fair wages	8) Image of sustainable consumption	8) Enjoyed by all the family	8) Give me happiness and satisfaction		
9) Choice and availability	9) Safety	9) Makes life easier	9) Improved quality of life		
10) Geographical region			10) Ensure my family are well fed		

11) Information on label					
12) Packaging material					

Kahle's list of values/life goals (LOVs). HI and VC cultural values, and organic food choice motivations

As stated in the introduction, to reveal the link between HI and VC cultural characteristics and various organic food choice motivations, the chains formed by consumers concerning organic food attributes through the consequence of seeking the values in Kahle's (1983) list of values (LOV) (instrumental and terminal values/life goals) were interpreted. LOVs can shape preferred consumption motivations (Marquardt, Kahle, O'Connell, & Godek, 2017) and have been successfully employed to uncover the underlying reasons for choosing organic foods (Chryssohoidis & Krystallis, 2005) and to examine ecological-conscious consumer behaviour (Riley & Kohlbacher, 2015). In this study, consumers' characteristics embedded in their H/V IND-COL values may be viewed in the same way as the end means or values of Kahle's (1983) LOVs (Thienhirun and Chung, 2017). Table 2 presents a typology of HI and VC organic food motivation and LOVs. In this theoretical attempt, the values excitement, fun, and enjoyment in life have been combined.

The LOVs that characterize an HI culture include 1) self-fulfillment = being distinct and separate from others; 2) excitement, fun, and enjoyment in life = being self-directed; 3) self-respect = being modest, not conspicuous; and 4) sense of accomplishment = expressing uniqueness. LOVs such as 5) being well respected = maintaining and protecting in-group status, 6) sense of belonging = conforming to norms, 7) security = deferring to authorities and in-groups, and 8) warm relationships with others = cherishing harmony are hallmarks of the VC cultures (Shavitt et al., 2006, p. 327). It is proposed that certain food choice motivations (underlined in Table 3). when viewed through the lens of LOV, are likely to be more congruent with HI culture life goals, whereas others are consistent with

VC culture life goals (*italicized* in Table 3). Table 3 heuristically illustrates which food choice motivations are probably tangent with distinct LOV life goals. It does not represent a definitive statement about the fixed relationships between these constructs. It is acknowledged that not all individuals from HI cultures would only show egoistic food choice motivations (e.g., sense of accomplishment) or that all individuals from VC cultures, altruistic ones (e.g., sense of belonging). Thus, it is more logical to assume that the differences materialize in terms of relative importance, not in terms of absolute qualities (cf. Limon, Kahle, & Orth, 2009).

TABLE 3 Mapping the potential congruities between the HI- and VC-culture life goals (*italicized*) and abstract food choice motivations (underlined)

Food choice motivations more likely to be congruent with HI-culture life goals	**Food choice motivations more likely to be congruent with VC-culture life goals**
1) Self-fulfilment (e.g. making the best use of one's talents) - Example of congruent HI life goal: *being distinct and separate from others*	5) Being well-respected (e.g. being admired and recognized by others) - Example of congruent VC life goal: *maintaining and protecting in-group status*
2) Excitement & fun and enjoyment in life (e.g. experiencing stimulation and thrills & leading a pleasurable and happy life) - Example of congruent HI life goal: *being self-directed*	6) Sense of belonging (e.g. being accepted and needed by one's family, friends and community) - Example of congruent VC life goal: *retaining conformity*
3) Self-respect (e.g. being proud and confident of oneself) - Example of congruent HI life goal: *expressing modesty*	7) Security (e.g. being safe and protected from misfortune and attacks) - Example of congruent VC life goal: *deferring authorities and in-groups*
4) Sense of accomplishment (e.g. succeeding at what one wants to do) - Example of congruent HI life goal: *expressing uniqueness*	8) Warm relationships with others (e.g. having close companionships and intimate friendships) - Example of congruent VC life goal: *cherishing harmony*

Recruitment of study participants and description of samples

Using a convenient sampling technique, potential study participants were approached as they patronized supermarkets, market squares, and green grocery shops in city environments. In Pakistan, data were collected during the autumn of 2016 from respondents living in the cities of Rawalpindi, Islamabad, Gujranwala, and Lahore. In Finland, data were collected during the summer of 2017 from respondents living in the cities of Vaasa, Helsinki, and Jyvaskyla. One hundred one consumers in Pakistan and 193 consumers in Finland agreed to take part in the study (no incentives were promised). These sample sizes exceed those typical either for hard-laddering interviews—e.g., 58 in Le Page et al. (2005)—or onsite-laddering interviews—e.g., 30-34 per consumer group in Westerlund-Lind (2007). The data collection for the present study involved conducting onsite hard-laddering interviews. (For explication, see the next section.) Table 4 describes the basic characteristics of the Pakistani and Finnish samples. The sampling was not based on any socio-demographic quotas but on the interception of consumers typically moving around in these commercial surroundings of the cities. Thus, there is a degree of variation present between the Pakistani and Finnish samples in terms of the socio-demographic profiles.

TABLE 4 Description of socio-demographic profiles of the Pakistani and Finnish samples

Socio-demographic characteristic	Pakistani sample (N = 101)		Finnish sample (N = 193)	
	Frequency	Percentage	Frequency	Percentage
1) Gender				
Female	38	38	143	74
Male	63	62	50	26
2) Age				
18–30	77	77	99	51
31–45	19	18	45	23
46 or over	5	5	49	26
3) Education				
Bachelor or lower	80	79	172	89
Master or higher	21	21	21	11
4) Monthly income (€)				
500 e or less	84	83	20	10
501 – 2499	4	4	126	65
2500-4999	13	14	41	21
5000 or more	-	-	6	3

Data collection

After receiving consent, the concept of organic food was briefly explained to each of the study participants to standardize the level of past knowledge. Subsequently, study participants were asked to think about the most important concrete attributes or features that convince them to buy organic food. To help their selection, they were given a paper listing concrete attributes. This step was followed by the question "And why is that important to you?" along with a list of abstract attributes (on a separate paper). This process went on until the level of values was reached or the study participant expressed the inability to link a lower-level means to any of the higher-level ends. The data collection procedure was pretested (N = 10). and a trained native of the Pakistani and Finnish culture performed the fieldwork.

Data analysis

The use of closed answering options (the ACV lists) expedited and simplified the data analysis, as laborious content analytical techniques (e.g., inductive meaning category development from open qualitative data) were not needed (Jägel et al., 2012). The second advantage of this method is that the ACV data entered are unambiguous, rendering crosschecking by multiple coders unnecessary. The MECanalyst software assists with the construction of an implications matrix (and eventually an HVM) by displaying how often an element leads to each other element in the laddering ACV data directly and indirectly. The implications matrix bridges the qualitative and quantitative elements of the laddering technique and allows examination of the different types of relationships and determination of the dominant paths likely to appear in the HVM (Jägel et al., 2012). The resulting HVM displays the dominant perceptual and motivational patterns, with the thickness of lines representing the strength of the association between the (meaning) categories emerging from the laddering data (see for example Le Page et al., 2005).

As mentioned, the implication matrices are elemental in the construction of hierarchical value maps or HVMs that display the most dominant perceptual and motivationally significant ACV linkages. Even though this important phase in the MEC analysis involves determination of the cut-off point, there does not exist any fixed and unambiguous way to define it (Zanoli & Naspetti, 2002). The optimal balance between data retention and reduction is often sought by experimenting with various cut-off points (Jägel et al., 2012). This approach was also followed here, leading eventually to a cut-off level of 9 for the Pakistani HVM and 16 for the Finnish HVM. The interpretability and comparability of the findings were deemed highest with these cut-off levels.

Results

In both Figures 1 and 2, 'nr' indicates the absolute number of informants who brought up a specific attribute, consequence, or value, whereas 'sub' refers to their relative proportion. For example, the information 'nr: 70; sub: 36%' in the instrumental value box of the Finnish HVM means that 70 informants reported this attribute, consequence, or value and made up 36 % of all informants.

FIGURE 1 Hierarchical value map (Pakistan)

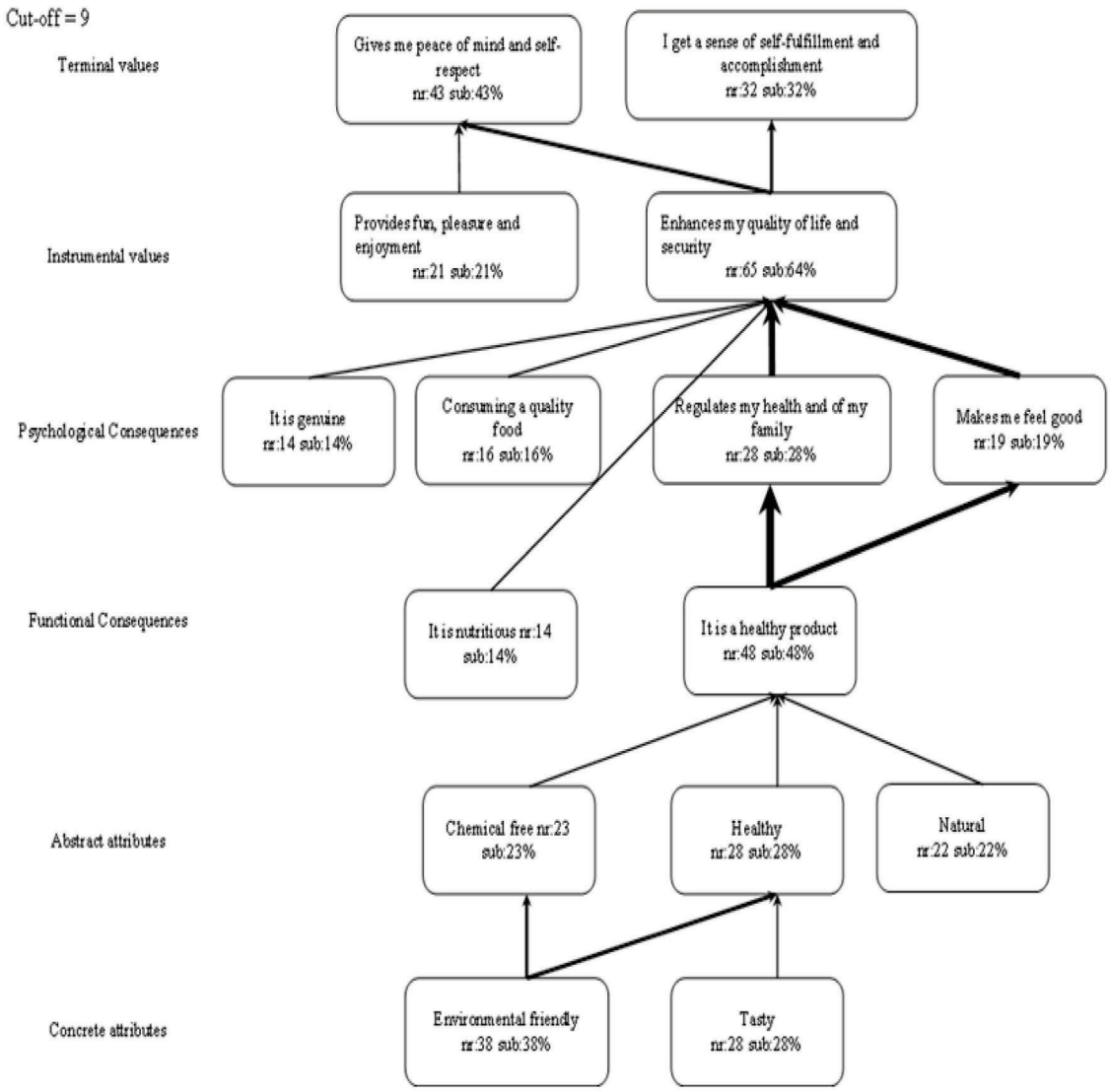
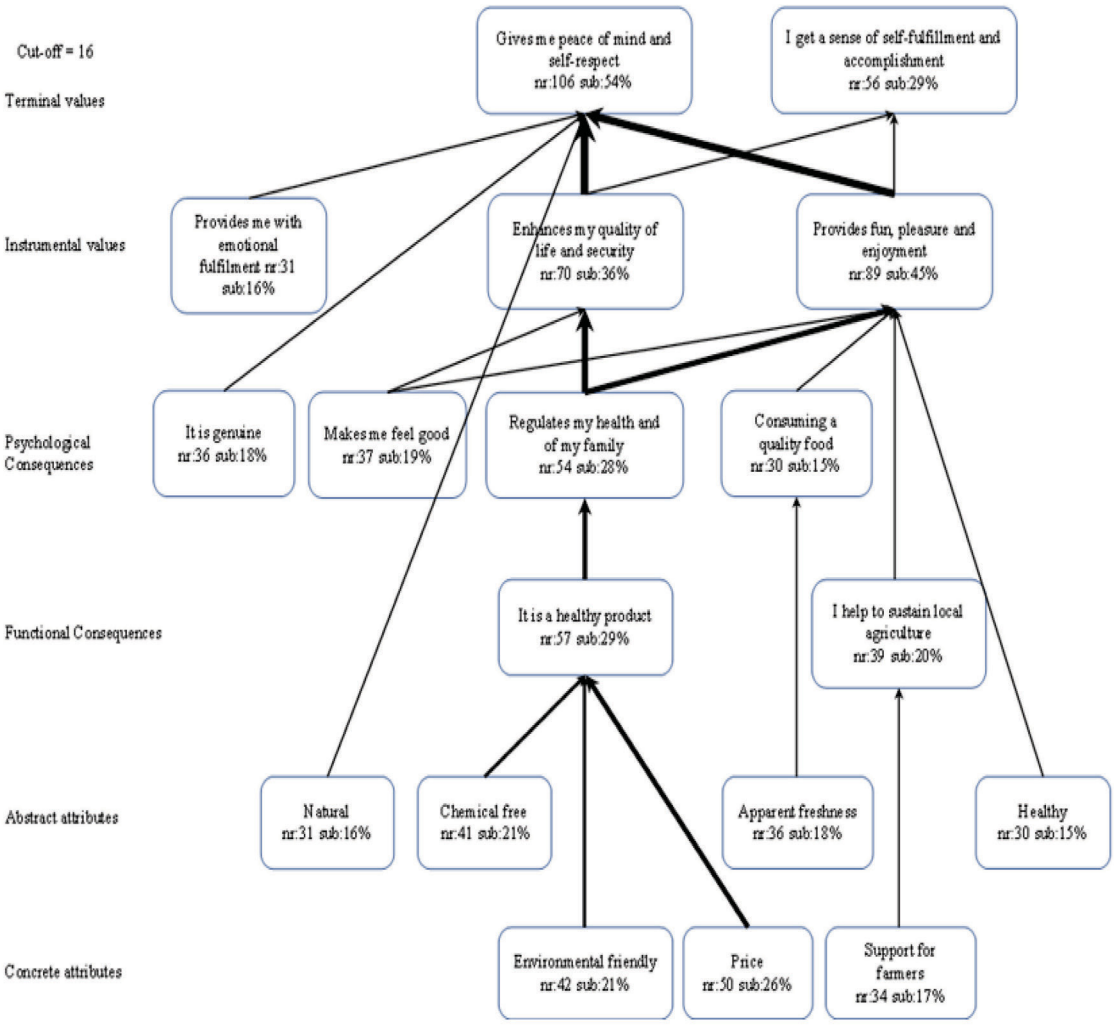


FIGURE 2 Hierarchical value map (Finland)



HI- and VC-culture LOVs as keys to understanding variation in organic food choice motivations

From the ACV chains obtained using the MEC method, we can understand the key differences in organic food motives of consumers in the two countries. Consumers have connected their food choice motives in terms of their VC and HI cultures and LOV differences. Simply, the results can be understood in the way the key differences in organic food choice motives in cultures embracing HI and VC cultural values are described in ACV chains. The following section describes these results.

To summarize, organic food choice motivations both converge and diverge between HI and VC cultures. In total, eight attributes, seven consequences, and five values that underlie organic food choices were extracted in these two countries. The most striking differences in the HVMs can be seen at the level of concrete attributes and instrumental values. The A-C-V chain patterns are observable in the Pakistani and Finnish HVMs. In both of the HVMs, the A-C chain labelled as ecology-driven health control could be detailed (see Figures 1 and 2). For Pakistan, the chain went as follows: *environmental friendliness* → *healthy* → *it is a healthy product* → *it regulates the health of me and my family.* The Finnish HVM shared this chain, with the exclusion of the abstract attribute *healthy.* This A-C chain is more accordant with the VC than HI culture LOVs (see cells 7 and 8 in Table 3). Yet it could be spotted in both of the HVMs. Interestingly, within both the Pakistani and Finnish HVMs, there was a variation in how strongly their content related to LOVs characterizing the VC and HI cultures, respectively. This consideration began with the highest level: values. The terminal value *gives me peace of mind and self-respect* is more congruent with the HI- than VC-culture LOVs (see cell 3 in Table 3). Yet it did not motivate organic food choices differently in Pakistan and Finland ($Z = 1.80$, $p = .09$). The case was similar for the second HI-spirited terminal value *I get a sense of self-fulfillment and accomplishment* (see cell 4 in Table 3); no statistically significant difference could be found ($Z = 0.53$, $p = .60$). However, the instrumental values present in both of the HVMs (*enhances my quality of life and security*; *provides fun, pleasure, and enjoyment*) were a different story. As already mentioned above, the former was more prominent in the Pakistani HVM and the latter in the Finnish HVM. This is logical as the first instrumental value shares connotations with the VC-culture LOVs and the second with the HI-culture LOVs (see cells 2, 7 and 8 in Table 3). Thus, the VC- and HI-culture LOVs seemed partly able to differentiate organic food consumption motivations.

Two unique A-C chains could be filtered out for the Pakistani HVM (see Figure 1): the taste-driven health control (*tasty* → *healthy* → *it is a healthy product* → *it regulates the health of me and my family*) and the ecology-driven life satisfaction (*environmental friendliness* → *chemical-free* → *it is*

a healthy product → *makes me feel good*). These A-C chains were especially interesting as they both appear to possess qualities that are simultaneously congruent with both the VC- and HI-culture LOVs (see cells 2, 7, and 8 Table 3). even though at the outset, Pakistan supposedly embraced the former more that the latter.

The Finnish HVM enabled the disentanglement of three separate A-C chains (see Figure 2). The chain *price* → *it is a healthy product* → *it regulates the health of me and my family* was named the price-driven health control because the idea that higher prices guarantee greater health benefits was a hallmark of it. This chain again exhibited a logic that does not contradict either VC- or HI-culture LOVs (see cells 1, 7 and 8 in Table 3). The second chain, the freshness-driven quality, and the third, the ethicality-driven pro-sociality, were the shortest ones derived from the HVMs (*apparent freshness* → *consuming a quality good*; *support for farmers* → *I help to sustain local agriculture*). The freshness-driven quality chain can be construed to be more in line with the HI-culture LOVs (see cells 1 and 4 in Table 3) and, thus, is expected to be present in the Finnish HVM. In contrast, the ethicality-driven pro-sociality chain reflects more clearly the VC-culture LOVs (see cell 5 in Table 3). Yet it appeared in the Finnish HVM and not in the Pakistani HVM. Overall, the results here lead to the conclusion that both convergence and divergence of egoistic, altruistic, and social motives to choose organic food are apparent in HI and VC cultures. This finding provides an answer to the research assumption of this study and shows a possible connection between HI versus VC and organic food motives.

TABLE 5 Unique and shared elements in the VC-Pakistani and HI-Finnish HVMs

HVM-element	Unique for the VC-Pakistani HVM	Unique for the HI-Finnish HVM	Present in both of the HVMs
1) Concrete attributes	Tasty	Price Support for farmers	Environmentally friendly
2) Abstract attributes		Apparent freshness	Natural Chemical-free Healthy
3) Functional consequences	It is nutritious	I help to sustain local agriculture	It is a healthy product
4) Psycho-social consequences			It is genuine Consuming a quality food Makes me feel good Regulates the health of me and my family
5) Instrumental values		Provides me with emotional fulfilment	Enhances my quality of life and security Provides fun, pleasure and enjoyment
6) Terminal values			Gives me a peace of mind and self-respect I get the sense of self-fulfillment and accomplishment

Discussion and conclusion

In an attempt to produce an improved understanding of culturally congruent sustainable food consumption motivations, in this research both vertical collectivism and horizontal individualism cultural values of H/V IND-COL culture typology were conceptually and empirically linked, using a list of values life goals (Triandis & Gelfand, 1998; Cho et al., 2013; Gupta, Wencke, & Gentry, 2019). Intriguing examples of logical relationships between the VC and HI culture LOVs and the motivational patterns underlying organic food choices were established. Although some motivational aspects were not differently shaped by VC- and HI-culture LOVs, there were links leading to apparent universal commonalities. Not choosing organic food for only individual/egoistic reasons in Finland or collective/group benefits in Pakistan was apparent. These findings spur implications and suggestions for future research. These will be considered in the following section.

Theoretical, social, and managerial implications

Based on the findings, organic food choices are motivated in both countries by VC- and HI-cultural values. At the general level, this could be taken as evidence for the blurring of cultural differences due to globalization (Kumar, Anand & Song, 2017). In support of this idea, Reisinger & Crotts (2010) found only minor differences in power distance, individualism-collectivism, masculinity-femininity, uncertainty avoidance, and long-term orientation among Australia, Greece, the UK, the US, China, Indonesia, Malaysia, and Singapore. Yet this may be a premature conclusion as choice motivations are bound to be consumption domain-specific (Hemmerling, Hamm, & Spiller, 2015). allowing more room for cultural influences (de Mooij & Hofstede, 2011). The finding that organic food choice is more strongly driven by the VC value *'enhances my quality of life and security'* in Pakistan and by the HI value *'provides fun, pleasure, and enjoyment'* in Finland is consistent with this view. Thus, it is theoretically important to acknowledge that cultural variation in sustainable product consumption motivations emerges due to differences in both the content and relative magnitude of the underlying values. Because research that examines the role of H/V IND-COL in consumers' sustainable

consumption motives is still in its early stages (Cho et al., 2013; Gupta, Wencke, & Gentry, 2019). incorporating LOVs here with H/V IND-COL cultural values has a conceptual and empirical rationale.

Second, some researchers in earlier studies have divided the organic food choice motivations into IND or egoistic (e.g., health, hedonism, status) and COL or altruistic (e.g., environmental friendliness, animal welfare) (Kareklas, Carlson, & Muehling, 2014; Schrank & Running, 2018). The A-C chains uncovered in this research also reflect this dichotomy relatively well. Although, the VC cultures more inherently promote altruism and HI cultures promote egoism, contrary to the findings of McCarty & Shrum (2001). Laroche et al. (2001) and Soyez (2012). the results of this study showed that organic food choice motivation in practice exhibit a blend and a compromise of IND versus COL interests in both VC Pakistan and HI Finland. Trade-offs involving egoistic benefits in collectivistic societies and altruistic benefits in individualistic ones continuously occur (Zagata, 2014). Conceptualizing environmental and collective action as types of social interaction that regulate communal relationships represents a promising approach to reconcile these apparent contradictions (van Zomeren, 2014). Its application offers a fruitful point of departure for advancing the understanding of cultural differences in sustainable consumption motivations.

Third, in three out of the six A-C chains identified, health was involved both as a functional and psychosocial consequence. Yet different product attributes drove this. In the case of the shared A-C chain in the two countries, the key feature was environmental friendliness, while in the case of the A-C chain unique for Pakistan, taste was the key feature, and in the case of the A-C chain unique to Finland, higher price was the key feature. At the outset, this appears baffling but tells us something about the multiplicity of health meanings. According to Geeroms, Verbeke and Van Kenhove (2008). consumers aspire to stay healthy because this enables physical and emotional well-being; good appearance, energy, and vitality; and achievement and social responsibility. Hence, there is a need for theorizing that is capable of incorporating cultural variation stemming from VC, HC, VI, and HI

life goals into accounts of health-relevant product choice motivations. To illustrate, the greater prevalence of the 'suits my lifestyle' justification for consuming calorie-reduced foods among Danish versus California consumers (Johansen, Naes, & Hersleth, 2011) could pertain to the distinct emphasis on the unique expression life goal (versus status communication) in an HI culture (versus a VI culture). In other words, instead of examining the extent to which health motivates sustainable food choices, a more relevant question may by in what ways it motivates these choices in different cultures.

Culturally adapted advertising has generally been regarded as delivering a more effective consumer response than non-adapted advertising (Hornikx & O'Keefe, 2009). Thus, both social and commercial marketers can utilize these findings to design appealing messages promoting sustainable consumption options. The findings suggest that in VC cultures (or at least in Pakistan) it may make sense to emphasize how the good taste and environmental friendliness of organic food lead to the healthy well-being and life satisfaction of extended families. In turn, according to the results, in HI cultures (or at least in Finland). a more compelling strategy probably revolves around justifying the higher price of organic food by the extra benefits to one's health and the vitality of local farmers. At the same time, in the case of organic food advertising, ads combining egoistic and altruistic claims have been found to be persuasive (Kareklas et al, 2014).

This study identified two types of consumers. In VC cultures, status life goals are prevalent, while in HI cultures, pleasure seeking is more acceptable (Shavitt, Johnson & Zhang, 2011). Yet based on the HVMs extracted from the Pakistani and Finnish data sets of this study, organic food choices are motivated by multiple values, consequences, and attributes that are both common and unique for the VC and HI cultures. From the viewpoint of facilitating the spreading of sustainable food consumption globally, this can be good news. Namely, it suggests that regardless of the culture, consumers are able to link various qualities such as hedonism, healthiness, reputation, environmental friendliness, and animal welfare to sustainable product choices, especially to new organic food products (cf. Puska,

Kurki, Lähdesmäki, Siltaoja, & Luomala, 2018). This positive development can be further assisted by governmental authorities, media, and celebrities worldwide (Lundahl, 2017).

Study limitations and future research suggestions

No research is perfect, and a few limitations can be identified in this study. At the same time, these limitations represent opportunities for future research. First, the data were collected from only two countries. The two countries were thought to stand for a VC and an HI culture. Thus, more observations should be collected from a broader range of cultures, including actual measurements of their VC, HC, HI, and VI orientations in order to check the validity of the results of this research. This necessitates a conservative generalization of the findings; they are believed to apply to other VC and HI cultures that resemble Pakistan and Finland.

Second, due to differences in the local data collection circumstances, the socio-demographic profiles of the Pakistani and Finnish samples vary. This needs to be noted as these factors can have a role in determining consumers' organic food attitudes and purchase behaviour (Bravo, Cordts, Schulze, & Spiller, 2013). For example, one could argue that the results can be more efficiently explained by differences in incomes than in cultural life values. Yet cross-cultural food studies have produced evidence supporting the influence of cultural factors in circumstances where the income level does not vary among the consumer groups being compared. As a case-in-point, Denmark and Germany represent countries with equal per capita GDPs, but they differ culturally. This is manifested in the greater effect of others' opinions on organic food purchase intentions in Denmark than in Germany (Ruiz de Maya, Lopez-Lopez, & Munuera, 2011). Similar results have been reported for functional food buying between French- and Flemish-speaking Belgians. The two groups differ culturally but not significantly in terms of discretionary income (Mullie, Guelinckx, Clarys, Degrave, Hulens, & Vansant, 2009).

Third, informants' prior organic food knowledge was not controlled for. Familiarity with the product can influence its perception (see for example Fischer & Frewer, 2009). Prior organic food knowledge

varies more in Pakistan than in Finland (Al-Swidi et al., 2014; Nuutila, 2016) and that, in principle, can affect the findings. This potential bias was counteracted in the present study by providing all informants with the same information about and definition of organic foods at the beginning of the interview.

Fourth, the methodological approach employed typically triggers conscious processing in study participants, leaving more subtle and socially disapproved motivations, such as status and impression-making (Rucker, Galinsky & Dubois, 2012). in the dark. Thus, future studies addressing cultural influences in sustainable consumption motivations should follow the principles of methodological triangulation. Fifth, the results were produced using only one form of sustainable food consumption. The motivational patterns of various cultures in other manifestations, such as habitual consumption of fair trade (Kimura et al., 2012) local foods (Memery et al., 2015) or even consuming less (Brooks & Wilson, 2015) remains yet another open question.

References

1. Aertsens, J., Verbeke, W., Mondelaers, K. and Van Huylenbroeck, G., (2009). Personal determinants of organic food consumption: a review. *British Food Journal*, 111(10). 1140-1167.
2. Al-Swidi, A., Huque S.M.R., Hafeez, M.H. and Shariff, N.M.M. (2014). The role of subjective norms in theory of planned behavior in the context of organic food consumption. *British Food Journal,* 116(10), 1561-1580.
3. Arpaci, I., (2017). Culture and nomophobia: The role of vertical versus horizontal collectivism in predicting nomophobia. *Information Development*, 35(1), 96-106.
4. Barrena, R., García, T. and Sánchez, M., (2015). Analysis of personal and cultural values as key determinants of novel food acceptance. Application to an ethnic product. *Appetite*, 87, 205-214.
5. Bauer, H.H., Heinrich, D. and Schäfer, D.B. (2013). The effects of organic labels on global, local, and private brands: More hype than substance? *Journal of Business Research*, 66(8), 1035-1043.
6. Birch, D., Memery, J. and Kanakaratne, M.D.S., (2018). The mindful consumer: Balancing egoistic and altruistic motivations to purchase local food. *Journal of Retailing and Consumer Services*, 40, 221-228.
7. Botschen, G., Thelen, E.M. and Pieters, R. (1999). Using means-end structures for benefit segmentation: An application to services. *European Journal of Marketing,* 33(1/2), 38-58.
8. Bravo, C. P., Cordts, A., Schulze, B., & Spiller, A. (2013). Assessing determinants of organic food consumption using data from the German National Nutrition Survey II. *Food quality and Preference*, 28(1), 60-70.
9. Brooks, J.S. and Wilson, C. (2015). The influence of contextual cues on the perceived status of consumption-reducing behavior. *Ecological Economics*, 117, 108-117.

10. Chen, F. F., & West, S. G. (2008). Measuring individualism and collectivism: The importance of considering differential components, reference groups, and measurement invariance. *Journal of Research in Personality*, 42(2), 259-294.
11. Cho, Y.N., Thyroff, A., Rapert, M.I., Park, S.Y. and Lee, H.J., (2013). To be or not to be green: Exploring individualism and collectivism as antecedents of environmental behavior. *Journal of Business Research*, 66(8), 1052-1059.
12. Chryssohoidis, G.M. and Krystallis, A. (2005). Organic consumers' personal values research: Testing and validating the list of values (LOV) scale and implementing a value-based segmentation task. *Food Quality and Preference*, 16(7), 585-599.
13. Costa, S., Zepeda, L., & Sirieix, L. (2014). Exploring the social value of organic food: a qualitative study in F rance. *International Journal of Consumer Studies*, 38(3). 228-237.
14. Croucher, S., Galy-Badenas, F., Jäntti, P., Carlson, E., & Cheng, Z. (2016). A test of the relationship between argumentativeness, individualism/collectivism, and conflict style preference in the United States and Finland. *Communication Research Reports,* 33(2), 128-136.
15. De Groot, J.I. and Steg, L., (2008). Value orientations to explain beliefs related to environmental significant behavior: How to measure egoistic, altruistic, and biospheric value orientations. *Environment and Behavior*, *40*(3), 330-354.
16. De Mooij, M. and Hofstede, G. (2011). Cross-cultural consumer behaviour: A review of research findings. *Journal of International Consumer Marketing*, 23(3-4), 181-192.
17. Dibley, A., & Baker, S. (2001). Uncovering the links between brand choice and personal values among young British and Spanish girls. *Journal of Consumer Behaviour: An International Research Review*, 1(1). 77-93.
18. DuPuis, E.M., (2000). Not in my body: BGH and the rise of organic milk. *Agriculture and human values*, 17(3). 285-295.

19. First, I. and Brozina, S., (2009). Cultural influences on motives for organic food consumption. *EuroMed Journal of Business*, 4(2), 185-199.
20. Fischer, A.R.H. and Frewer, L. (2009). Consumer familiarity with foods and the perception of risks and benefits. *Appetite,* 20(8), 576-585.
21. Fiske, A. P. (1992). The four elementary forms of sociality: framework for a unified theory of social relations. *Psychological review*, 99(4). 689.
22. Geeroms, N., Verbeke, W. and Van Kenhove, P. (2008). Consumers' health-related motive orientations and ready meal consumption behaviour. *Appetite*, 51(3), 704-712.
23. Gifford, R. and Nilsson, A., (2014). Personal and social factors that influence pro-environmental concern and behaviour: A review. *International Journal of Psychology*, 49(3), 141-157.
24. Grebitus, C., & Dumortier, J. (2016). Effects of Values and Personality on Demand for Organic Produce. *Agribusiness*, 32(2), 189-202.
25. Griskevicius, V., Tybur, J.M. and Van den Bergh, B., (2010). Going green to be seen: status, reputation, and conspicuous conservation. *Journal of personality and social psychology*, 98(3). 392.
26. Grunert, K. G., & Valli, C. (2001). Designer-made meat and dairy products: consumer-led product development. *Livestock Production Science*, 72(1-2). 83-98.
27. Gupta, S. and Ogden, D.T., (2009). To buy or not to buy? A social dilemma perspective on green buying. *Journal of Consumer Marketing*, *26*(6). 376-391.
28. Gupta, S., Wencke, G., & Gentry, J. (2019). The Role of Style Versus Fashion Orientation on Sustainable Apparel Consumption. *Journal of Macromarketing*, 39(2), 188-207.
29. Gutman, J. (1982). A means-end chain model based on consumer categorization processes. *Journal of marketing*, 46(2). 60-72.

30. Hemmerling, S., Hamm, U. and Spiller, A. (2015). Consumption behaviour regarding organic food from a marketing perspective, a literature review. *Organic Agriculture*, 5(4), 277-313.
31. Hofstede, G. (1980). Motivation, leadership, and organization: do American theories apply abroad?. *Organizational dynamics*, 9(1). 42-63.
32. Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage publications.
33. Hornikx, J. and O'Keefe, D.J. (2009). Adapting consumer advertising appeals to cultural values a meta-analytic review of effects on persuasiveness and ad liking. *Annals of the International Communication Association*, 33(1), 39-71.
34. Howell, R.A., (2013). It's not (just)"the environment, stupid!" Values, motivations, and routes to engagement of people adopting lower-carbon lifestyles. *Global Environmental Change*, 23(1). 281-290.
35. Islam, N. (2004). Sifarish, sycophants, power and collectivism: Administrative culture in Pakistan. *International Review of Administrative Sciences*, 70(2), 311-330.
36. Jägel, T., Keeling, K., Reppel, A., & Gruber, T. (2012). Individual values and motivational complexities in ethical clothing consumption: A means-end approach" *Journal of Marketing Management*, 28(3-4), 373-396.
37. Jamal, A. and Sharifuddin, J., (2015). Perceived value and perceived usefulness of halal labeling: The role of religion and culture. *Journal of Business Research*, 68(5), 933-941.
38. Johansen, S.B., Næs, T. and Hersleth, M. (2011). Motivation for choice and healthiness perception of calorie-reduced dairy products. A cross-cultural study. *Appetite*, 56(1), 15-24.
39. Kahle, L. R. (1983). *Social values and social change: Adaptation to life in America*. Praeger Publishers.

40. Kahle, L.R., Beatty, S.E. and Homer, P., (1986). Alternative measurement approaches to consumer values: the list of values (LOV) and values and life style (VALS). *Journal of consumer research*, 13(3). 405-409.

41. Kareklas, I., Carlson, J.R. and Muehling, D.D. (2014). I eat organic for my benefit and yours": egoistic and altruistic considerations for purchasing organic food and their implications for advertising strategists. *Journal of Advertising*, 43(1), 18-32.

42. Khatri, N., Tsang, E. W., & Begley, T. M. (2006). Cronyism: A cross-cultural analysis. *Journal of International Business Studies*, 37(1), 61-75.

43. Kim, Y. and Choi, S.M., (2005). Antecedents of green purchase behavior: An examination of collectivism, environmental concern, and PCE. In North American-Advances in Consumer Research, 32, 592-599.

44. Kumar, V., Anand, A. and Song, H. (2017). Future of retailer profitability: an organizing framework. *Journal of Retailing*, 93(1), 96-119.

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

46. Le Page, A., Cox, D.N., Russell, C.G. and Leppard, P.I. (2005). Assessing the predictive value of means-end-chain theory: an application to meat product choice by Australian middle-aged women. *Appetite,* 44(2), 151-162.

47. Limon, Y., Kahle, L. R., & Orth, U. R. (2009). Package design as a communications vehicle in cross-cultural values shopping. *Journal of International Marketing*, 17(1), 30-57.

48. Lin, C. F., & Fu, H. H. (2001). Exploring logic construction on MECs to enhance marketing strategy. *Marketing Intelligence & Planning*, 19(5), 362-367.

49. Lockie, S., Lyons, K., Lawrence, G. and Mummery, K. (2002). Eating 'green' motivations behind organic food consumption in Australia. Sociologia Ruralis, 42(1), 23-40

50. Lu, L.C., Chang, H.H. and Yu, S.T., (2013). Online shoppers' perceptions of e-retailers' ethics, cultural orientation, and loyalty: an exploratory study in Taiwan. *Internet Research*, 23(1). 47-68.

51. Lundahl, O., (2017). From a moral consumption ethos to an apolitical consumption trend: The role of media and celebrities in structuring the rise of veganism. University of Vaasa, *Acta Wasaensia 381, Business Administration*.

52. Mancha, R.M. and Yoder, C.Y., (2015). Cultural antecedents of green behavioral intent: An environmental theory of planned behavior. *Journal of Environmental Psychology*, 43, 145-154.

53. Marquardt, A. J., Kahle, L. R., O'Connell, D. P., & Godek, J. (2017). LOV measures: Using the list of values to measure symbolic brand equity (an abstract). In *Creating Marketing Magic and Innovative Future Marketing Trends* (283-284). Springer, Cham.

54. McCarty, J.A. and Shrum, L.J., (2001). The influence of individualism, collectivism, and locus of control on environmental beliefs and behavior. *Journal of Public Policy & Marketing*, *20*(1), 93-104.

55. McDonald, S., Oates, C.J., Alevizou, P.J., Young, C.W. and Hwang, K., (2012). Individual strategies for sustainable consumption. *Journal of Marketing Management*, 28(3-4), 445-468.

56. Memery, J., Angell, R., Megicks, P. and Lindgreen, A. (2015). Unpicking motives to purchase locally-produced food: analysis of direct and moderation effects. *European Journal of Marketing*, 49(7/8), 1207-1233.

57. Milfont, T.L., Duckitt, J. and Cameron, L.D., (2006). A cross-cultural study of environmental motive concerns and their implications for pro-environmental behavior. *Environment and Behavior*, 38(6), 745-767.

58. Mullie, P., Guelinckx, I., Clarys, P., Degrave, E., Hulens, M. and Vansant, G. (2009). Cultural, socioeconomic and nutritional determinants of functional food consumption patterns. *European Journal of Clinical Nutrition,* 63(11), 1290-1296.

59. Nordfjærn, T., & Zavareh, M. F. (2016). Individualism, collectivism and pedestrian safety: A comparative study of young adults from Iran and Pakistan. *Safety science*, 87, 8-17.

60. Nuutila, J. (2016). The Finnish organic food chain. Modelling towards 2020 goals with change and innovation. University of Helsinki, Institute of Behavioural Sciences. *Studies in Educational Sciences 272.*

61. Oishi, S., Schimmack, U., Diener, E., & Suh, E. M. (1998). The measurement of values and individualism-collectivism. *Personality and social psychology bulletin*, 24(11). 1177-1189.

62. Oliver, J.D. and Lee, S.H., (2010). Hybrid car purchase intentions: a cross-cultural analysis. *Journal of consumer marketing*, 27(2). 96-103.

63. Padel, S., & Foster, C. (2005). Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food. *British Food Journal*, 107(8), 606-625.

64. Papista, E. and Krystallis, A., (2013). Investigating the types of value and cost of green brands: proposition of a conceptual framework. *Journal of Business Ethics*, 115(1), 75-92.

65. Parker, A.G. and Grinter, R.E., (2014). Collectivistic health promotion tools: Accounting for the relationship between culture, food and nutrition. *International Journal of Human-Computer Studies*, *72*(2), 185-206.

66. Puska, P., Kurki, S., Lähdesmäki, M., Siltaoja, M. and Luomala, H. (2018). Sweet taste of prosocial status signaling: When eating organic foods make you happy and hopeful. *Appetite*, 121(1), 348-359.

67. Quazi, A., Amran, A., & Nejati, M. (2016). Conceptualizing and measuring consumer social responsibility: A neglected aspect of consumer research. *International journal of consumer studies*, 40(1), 48-56.

68. Rana, J. and Paul, J. (2017). Consumer behaviour and purchase intention for organic food: A review and research agenda. *Journal of Retailing and Consumer Services*, 38(9), 157-165.

69. Reisinger, Y. and Crotts, J.C. (2010). Applying Hofstede's national culture measures in tourism research: Illuminating issues of divergence and convergence. *Journal of Travel Research*, 49(2), 153-164.

70. Riley, L. S., & Kohlbacher, F. (2015). Values as antecedents for ecologically conscious consumer behavior among seniors: A cross-cultural comparison. In *Marketing Dynamism & Sustainability: Things Change, Things Stay the Same* (728-731). Springer, Cham.

71. Rucker, D.D., Galinsky, A.D. and Dubois, D. (2012). Power and consumer behavior: How power shapes who and what consumers' value. *Journal of Consumer Psychology*, 22(3), 352-368.

72. Ruiz de Maya, S.R., Lopez-Lopez, I. and Munuera, J.L. (2011). Organic food consumption in Europe: International segmentation based on value system differences. *Ecological Economics,* 70(10), 1767-1775.

73. Russell, C.G., Busson, A., Flight, I., Bryan, J., van Pabst, J.V.L. and Cox, D.N., (2004). A comparison of three laddering techniques applied to an example of a complex food choice. *Food quality and preference*, 15(6), 569-583.

74. Sandhu, M.S. and Ching, P.W., (2014). Relationship between Individual Cultural Values and Knowledge Sharing in Selected Multinational Companies in Malaysia. *International Journal of Business and Economics*, 13(1), 1-24.

75. Schrank, Z. and Running, K. (2016). Individualist and collectivist consumer motivations in local organic food markets. *Journal of Consumer Culture*, 18(1), 184-201.

76. Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. Zanna (Ed.). Advances in experimental social psychology (Vol. 25, 1-66). San Diego, CA: Academic Press
77. Shavitt, S. and Cho, H. (2016). Culture and consumer behaviour: the role of horizontal and vertical cultural factors. *Current Opinion in Psychology*, 8(4), 149-154.
78. Shavitt, S., & Barnes, A. J. (2019). Cross-cultural consumer psychology . *Consumer Psychology Review*, 2(1), 70-84.
79. Shavitt, S., Johnson, T.P. and Zhang, J. (2011). Horizontal and vertical cultural differences in the content of advertising appeals. *Journal of International Consumer Marketing*, 23(3/4), 297-310.
80. Shavitt, S., Lalwani, A.K., Zhang, J. and Torelli, C.J. (2006). The horizontal/vertical distinction in cross-cultural consumer research. *Journal of Consumer Psychology*, 16(4), 325-342.
81. Shukla, P., Singh, J. and Banerjee, M., (2015). They are not all same: variations in Asian consumers' value perceptions of luxury brands. *Marketing Letters*, 26(3), 265-278.
82. Sivadas, E., Bruvold, N.T. and Nelson, M.R. (2008). A reduced version of the horizontal and vertical individualism and collectivism scale: A four-country assessment. *Journal of Business Research*, 61(3), 201-210.
83. Soyez, K., (2012). How national cultural values affect pro-environmental consumer behavior. *International Marketing Review*, 29(6), 623-646.
84. Thienhirun, S. and Chung, S. (2017). Influence of List of Values on Customer Needs, Satisfaction, and Return Intention in Ethnic Restaurants. *Journal of Hospitality Marketing & Management*, 26(8), 868-888.

85. Thienhirun, S., & Chung, S. (2017). Influence of list of values on customer needs, satisfaction, and return intention in ethnic restaurants. *Journal of Hospitality Marketing & Management*, 26(8). 868-888.

86. Torelli, C. J., Özsomer, A., Carvalho, S. W., Keh, H. T., & Maehle, N. (2012). Brand concepts as representations of human values: do cultural congruity and compatibility between values matter?. *Journal of marketing*, 76(4). 92-108.

87. Torres, C.V. and Pérez-Nebra, A.R., (2007). The influence of human values on holiday destination choice in Australia and Brazil. *BAR-Brazilian Administration Review*, 4(3). 63-76.

88. Triandis, H.C. (1995). *Individualism & collectivism*. Westview press.

89. Triandis, H.C. and Gelfand, M.J., (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of personality and social psychology*, 74(1), 118-128.

90. van Zomeren, M. (2014). Synthesizing individualistic and collectivistic perspectives on environmental and collective action through a relational perspective. *Theory & Psychology*, 24(6), 775-794.

91. Vega-Zamora, M., Torres- Ruiz, F.J., Murgado- Armenteros, E.M. and Parras- Rosa, M., (2014). Organic as a heuristic cue: What Spanish consumers mean by organic foods. *Psychology & Marketing*, 31(5), 349-359.

92. Venaik, S., & Brewer, P. (2013). Critical issues in the Hofstede and GLOBE national culture models. *International Marketing Review*, 30(5). 469-482.

93. Vodosek, M. (2009). The relationship between relational models and individualism and collectivism: Evidence from culturally diverse work groups. *International Journal of Psychology*, 44(2). 120-128.

94. Wang, Y., (2014). Individualism/collectivism, charitable giving, and cause-related marketing: a comparison of Chinese and Americans. *International Journal of Non-profit and Voluntary Sector Marketing*, 19(1). 40-51.

95. Waylen, K.A., Fischer, A., McGowan, P.J. and Milner-Gulland, E.J., (2012). Interactions between a collectivist culture and Buddhist teachings influence environmental concerns and behaviors in the Republic of Kalmykia, Russia. *Society & Natural Resources*, 25(11), 1118-1133.

96. Webb, D.J., Mohr, L.A. and Harris, K.E., (2008). A re-examination of socially responsible consumption and its measurement. *Journal of Business Research*, 61(2). 91-98.

97. Westerlund-Lind, L. (2007). Consumer involvement and perceived differentiation of different kinds of pork: A Means-End Chain analysis. *Food Quality and Preference,* 18(4), 690-700.

98. Winterich, K.P. and Zhang, Y. (2014). Accepting inequality deters responsibility: How power distance decreases charitable behaviour. *Journal of Consumer Research*, 41(2), 274-293.

99. Wong, J., Newton, J. D., & Newton, F. J. (2014). Effects of power and individual-level cultural orientation on preferences for volunteer tourism. *Tourism Management*, 42, 132-140.

100. Yazdanpanah, M., & Forouzani, M. (2015). Application of the Theory of Planned Behaviour to predict Iranian students' intention to purchase organic food. *Journal of Cleaner Production*, 107, 342-352.

101. Yi-Cheon Yim, M., L. Sauer, P., Williams, J., Lee, S.J. and Macrury, I., (2014). Drivers of attitudes toward luxury brands: A cross-national investigation into the roles of interpersonal influence and brand consciousness. *International Marketing Review*, 31(4), 363-389.

102. Yoo, B., Donthu, N. and Lenartowicz, T. (2011). Measuring Hofstede's five dimensions of cultural values at the individual level: Development and validation of CVSCALE. *Journal of International Consumer Marketing,* 23(3-4), 193-210.

103. Zagata, L. (2014). Towards conscientious food consumption: exploring the values of Czech organic food consumers. *International Journal of Consumer Studies*, 38(3), 243-250.

104. Żakowska-Biemans, S., (2011). Polish consumer food choices and beliefs about organic food. *British Food Journal*, 113(1), 122-137.

105. Zanoli, R., & Naspetti, S. (2002). Consumer motivations in the purchase of organic food: a means-end approach. *British Food Journal*, 104(8), 643-653.

106. Zhang, J. and Nelson, M.R. (2016). The effects of vertical individualism on status consumer orientations and behaviours. *Psychology & Marketing*, 33(5), 318-330.

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Differences in horizontally individualist and vertically collectivist consumers' environmental behaviour: a regulatory focus perspective

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Abstract: Building on horizontal and vertical individualism and collectivism (HV I-C) typology and regulatory focus theory (RFT), this study aims to examine cross-cultural environmental behaviour differences between HI-Finnish and VC-Pakistani consumers. In regards to consumers' attitude towards environmentally friendly products, the results demonstrated predominantly HI-promotion-focused regulatory fit effect in Finland and VC-prevention-focused regulatory fit effect in Pakistan. Consequently, consumers' environmentally friendly products' attitude positively affect their purchase intentions. This study contributes to the sustainability literature by examining the overlooked appropriateness of RFT and HV I-C in cross-cultural environmental behaviour. Managers can use the insights of this study to market their environmentally friendly products more effectively across different cultures.

Keywords: environmentally friendly products; consumers; regulatory focus; cross-cultural; horizontal individualism vs. vertical collectivism.

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1 Introduction

When a consumer decides to buy a product or service, there is always potential for that decision to be part of a sustainable or unsustainable pattern of consumption. Their purchase decisions may prevent or promote environmental degradation. While consumers may be willing to take responsibility for the environmental impact of their purchases, greening their consumption patterns is not easy (Quazi et al., 2016; Fowler and Close, 2012). It seems that, regardless of consumers' concerns, they continue to buy hazardous non-green products. Researchers have consistently struggled to accurately predict

possible antecedents of consumers' pro-environmental behaviour (Cho et al., 2013) and the motives behind consumers' environmental or sustainable consumption are still unclear (Zagata, 2014).

Marketing researchers argue that consumer behaviour is goal-orientated and consumers' purchase decisions are the expressions of those goals (Higgins, 1997). For example, eastern and western cultures that are classified as collectivistic and individualistic (Hofstede, 1980) are described as prevention- and promotion-focused, respectively (Higgins et al., 2007). However, the structures of cultures are changing and as a result, consumer behaviour varies across different cultures. Consequently, individuals regulate their goals in different ways (Higgins, 1997; Ouschan et al., 2007; Lee et al., 2000; Shavitt et al., 2009; Poels and Dewitte, 2008).

Researchers have mainly relied on using regulatory focus theory (RFT) to examine how consumers' regulate their goal orientations in a given situation. RFT is devoted to the pursuit of pleasure goals, i.e., promotion focused, and the avoidance of pain goals, i.e., prevention focused (Higgins, 1997, 2012). The role of RFT is also evident in the research on consumers' environmentally friendly consumption (Onwezen et al., 2014; Hsu and Chen, 2014; Miniero et al., 2014; Pula et al., 2014; Kareklas et al., 2012; Bhatnagar and McKay-Nesbitt, 2016; Chen et al., 2015). However, the findings of these studies are limited to basing consumers' sustainable consumption goals as pro-self or pro-others, construing them as independent and interdependent selves (Markus and Kitayama, 1991; Kareklas et al., 2012; Chen et al., 2015) or individualists and collectivists (IND/COL) (Hofstede, 1980; Onwezen et al., 2014). Research reveals that consumers face a trade-off between their individual and collective interests when behaving in environmentally friendly ways (Moisander, 2007; Gupta and Ogden, 2009; Van Lange et al., 2013) and that their promotion- and prevention-focused orientations may transcend each other in the context of environmentally friendly behaviour across different cultures (Bhatnagar and McKay-Nesbitt, 2016; Chen et al., 2015).

As no consumers are alike, such as that consumers' goals and cultural characteristics are not homogenous, the purpose of this study is to blend RFT with HV I-C typology (Triandis and Gelfand, 1998), so as to provide important findings in advancing cross-cultural sustainable consumption research that demonstrates whether consumers' prevention and promotion focus orientations have any impact on environmentally friendly behaviour. Here, the authors infer that environmental behaviour is not limited to individualistic or collectivistic interests of consumers, but the interplay of RFT can be useful with horizontal and vertical individualism and collectivism (HV I-C) typology, which is more comprehensive (Triandis and Gelfand, 1998). This study offers several managerial and marketing implications that may be essential for national as well as international producers, marketers and policymakers. In the remainder of the study, the literature review, theoretical framework, research method, findings and results, discussion and conclusions are discussed. Managerial implications, limitations and future research recommendations are also considered at the end.

2 Literature review

2.1 Regulatory focus theory

The primary basis for this research is RFT. RFT suggests that individuals have two different motivational preferences for the means to achieve goals: promotion-focused and

prevention-focused (Higgins, 1997). Promotion orientated individuals focus on achieving an ideal state are sensitive to gains and strive eagerly to reach goals. Individuals with a prevention orientation focus on pursuing goals cautiously, preventing problems and are sensitive to losses (Shah et al., 1998). Individuals feel more satisfied when regulatory fit occurs and matches with their goals (Kruglanski, 2006). Lee and Aaker (2004) found that regulatory fit leads to positive attitudes, which improve individuals' behaviour. Consumers evaluate the purchases they make based on these orientations and consider whether the result will maximise their benefits or minimise negative outcomes (Aaker and Lee, 2006). Consequently, they pay more for a product if it matches their promotion- or prevention-focused orientation (Avnet and Higgins, 2006). Due to its importance in people's decision-making, RFT has been widely used in the majority of studies, including those on consumers' responses to advertising (Aaker and Lee, 2001; Chowdhury et al., 2015), health-relevant behaviours (Haught et al., 2015), safety behaviour (Aryee and Hsiung, 2016), restaurant choice (Tuan Pham and Chang, 2010) word of mouth communications (Pentina et al., 2018) and food consumption (Pula et al., 2014). RFT is appropriate for many consumers' decisions and remains one of the stable individual difference variables in consumer behaviour (Higgins, 2012).

2.2 Horizontal vs. vertical individualism and collectivism

HV I-C addresses the equality/inequality belief among members of a cultural group (Singelis et al., 1995; Triandis and Gelfand, 1998; Shavitt et al., 2006; Shavitt and Cho, 2016). For instance, vertical individualistic (VI) individuals are from France, Great Britain and the USA, with characteristics focused on hierarchy, power, individual competition and the value of being different and important. Individuals from India, Japan and Korea are vertical collectivistic (VC) in nature, emphasising submission and compliance with authority, prioritising group benefits, goals and interests and preserving unity. Citizens of Denmark, Norway, Sweden and Australia are horizontal individualistic (HI) and bear the characteristics of equality, independence, self-reliance and uniqueness. Horizontal collectivistic (HC) people are from Israeli kibbutzim, emphasising equity, sociability, interdependence and group commonality. These characteristics bring out different themes and each of them can be displayed by individuals within any culture (Komarraju and Cokley, 2008). The role of HV I-C dimensions has been widely examined in different research contexts; among these, its role in consumer psychology is most prominent. For example, consumers with VI (high on competitiveness) orientations are brand conscious and status orientated and do not tolerate lying (Lu et al., 2013; Zhang and Nelson, 2016). VC (high on group dependence) orientated consumers are normative, pro-environmental and prone to other directed symbolism and nomophobia (Yi-Cheon Yim et al., 2014; Shukla et al., 2015; Arpaci, 2017; Waylen et al., 2012). Individuals rated high on HI (high on uniqueness) achieve outcomes with competence, display impersonal interests in nutritional practices for society, show pro-environmental attitudes and are satisfied with their lives (Sandhu and Ching, 2014; Torres and Pérez-Nebra, 2007; Cho et al., 2013; Parker and Grinter, 2014). HC individuals (high on interdependence) show positive environmental attitudes, are interested in cause-related marketing, give preference to products for religious reasons and show leisure attitudes (Cho et al., 2013; Wang, 2014; Jamal and Sharifuddin, 2015; Wong et al., 2014).

3 Hypotheses development

3.1 Horizontal individualism vs. vertical collectivism differences in regulatory focus

Earlier research has argued that consumers' regulatory goals, attitudes and behaviour can be distinctively different in different cultures (Higgins, 1997). Researchers assumed that consumers in individualistic cultures would be promotion-orientated and consumers from collectivistic cultures would be prevention-orientated (Chen et al., 2005; Lee et al., 2000). However, it is not true. From the review of literature, it seems that earlier research was unable to produce credible evidence on how and why regulatory fit effect occurs in different contexts, thus compelling the authors to understand regulatory fit occurrence in cross-cultural contexts. One possible explanation is that regulatory focus orientations are not fixed (Miniero et al., 2014) and different across different cultural contexts (Bu et al., 2013).

Since the countries of investigation in this study are Finland and Pakistan, the authors argue that the goals of consumers in Finland are promotion-focused to achieve gains and will be compatible with their horizontal individualist characteristics. On the contrary, Pakistani consumers are prevention-focused to avoid losses and will be compatible with their VC characteristics. For instance, earlier research supports our selection of these countries. Finns represents HI specific cultural characteristics such as uniqueness, independence, self-reliance and equality (Khatri et al., 2006). Finns show positive attitude to products with promoting health claims and experience emotions having positive outcomes (Grunert et al, 2009; Luomala et al., 2015), whereas the characteristics of Pakistanis are relatively obligatory, show status or power distance, group orientation, and hierarchy (Sivadas et al., 2008), which shows their VC cultural orientations (Imam, 2013). Moreover, Pakistanis have also been characterised as prevention focused consumers (Ashraf et al., 2016). Therefore, it is hypothesised that:

H1a There is a positive influence of HI on consumers' promotion-focused orientations but (H1b) a negative influence, or no influence, on their prevention focus in Finland.

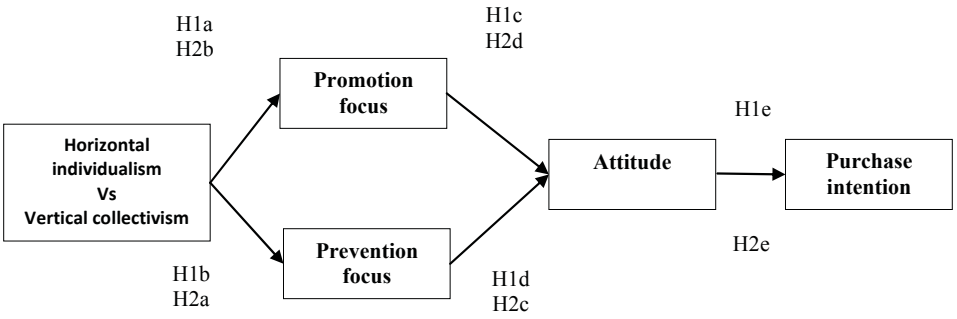
H2a There is a positive influence of VC on consumers' prevention-focused orientations but (H2b) a negative effect, or no effect, on their promotion-focused orientations in Pakistan.

3.2 Regulatory focus difference in environmental attitude and purchase intentions

RFT also appears in research on predicting consumers' pro-environmental behaviours, but with mixed results. For instance, prevention-orientated consumers feel a moral duty to adopt green lifestyles and prefer natural contents in food (Miniero et al., 2014; Pula et al., 2014). Conversely, promotion goals were found to be more dominant than prevention goals in environmentally responsible behaviour and the purchase of organic food (Chen et al., 2015). Bhatnagar and McKay-Nesbitt (2016) found that promotion- and prevention-focused individuals respond similarly to recycling. In their study, Onwezen et al. (2014) found no difference regarding self-regulated anticipated pride and guilt in the purchase intentions of consumers from individualistic and collectivistic

countries. According to Kareklas et al. (2012), promotion-orientated environmental appeals were found to be more effective than prevention-orientated environmental appeals for consumers with interdependent self-views. On the contrary, it has been suggested that consumers perceive prevention-focused appeals better than promotion-focused appeals when marketers position sustainable products (Bullard and Manchanda, 2013).

Figure 1 Conceptual framework



Since, pro-environmental behaviour is described as "behaviour that consciously seeks to minimise the negative impact of one's actions on the natural and built world" (Kollmuss and Agyeman, 2002). Therefore, instead of assuming consumers' environmental goals are independent or interdependent and/or individualistic or collectivistic (McCarty and Shrum, 2001; Soyez, 2012; Park et al., 2007), it is possible that there may be a difference in consumers' regulatory focus and environmental behaviour in countries structured as horizontal and vertical or collectivist and individualist (Cho et al., 2013; Waylen et al., 2012). For example, in their green purchasing behaviour, there is a difference in consumers' underlying emotional mechanisms between attitude-intention associations in individualistic versus collectivistic cultures (Onwezen et al., 2014). Therefore, it can be possible that a pro-environmental consumer may activate his or her prevention- or promotion-focused orientation despite his or her chronic regulatory focus orientation as an individualist or a collectivist (Higgins, 2002). Consequently, we argue that, instead of assuming congruency between IND/COL and regulatory focus emotions, it is possible that the formation of regulatory fit effect will prevail in HI and VC cultures and produce cultural indigenous consumers' environmentally friendly attitude and purchase intentions. Therefore, it is hypothesised that:

H1c Promotion-focused orientations positively influence but (H1d) prevention-focused orientations have a negative influence, or no influence, on consumers' attitude in Finland.

H1e Consumers' attitude positively influence consumers' purchase intentions in Finland.

H2d Prevention-focused orientations positively influence but (H2d) promotion-focused orientations have a negative influence, or no influence, on consumers' attitude in Pakistan.

H2e Consumers' attitude positively influence consumers' purchase intentions in Pakistan.

4 Methodology

4.1 Data collection and sample

The study sample includes people belonging to two countries: Finland and Pakistan. The authors adopted non-probability convenient sampling techniques for data collection. The respondents were contacted in malls, parks, city centres, universities and public places. Data were received from 179 Pakistani respondents residing in Rawalpindi and Islamabad during the months of August to October 2016 and from 207 Finnish respondents residing in Vaasa and Helsinki from May to July 2017.

4.2 Measures

The study questionnaire consisted of two parts. To avoid the confusion of respondents in understanding the questions, the questionnaire was translated into the native languages of Pakistan-Urdu and Finland-Finnish. The first part included scale items of independent and dependent variables and the second part included questions about demographic characteristics, such as age, gender, marital status, education and income level of the respondents. Scale items of horizontal individualism (HI) and four items of vertical collectivism (VC) value orientations were adopted from the study of Triandis and Gelfand (1998) and were measured using a Likert scale of 'strongly disagree' (1) to 'strongly agree' (5). Statements on regulatory focus orientations were adopted from the study of Higgins et al. (2001) and measured as advised by that author. Scale items on consumers' environmental attitude variable were adopted from the study of Mostafa (2007) and were measured using a 1–5 Likert scale. Questionnaire items on purchase intention variables were taken from the study of Paul et al. (2016) and were measured using a Likert scale of 'strongly disagree' (1) to 'strongly agree' (5).

4.3 Data analysis tests

The collected data were analysed using the statistical application software Statistical Program for Social Scientists (SPSS 20.0). Moreover, to test the fitness of the model, the authors applied a structural equation modelling (SEM) technique using SmartPLS (v. 3.2.6) application software.

5 Results and findings

5.1 Sample characteristics

The demographic information shows that the majority of the respondents were aged 21–25 in both samples (Pakistan, 35, 19.5%; Finland, 51, 24.6%). However, there were more females in the Finnish sample (154, 74.4%) than in the Pakistani sample (80, 44.7%). There were six (3.4%) respondents with doctorate degrees in the Pakistani

sample but only one (0.6%) in the Finnish sample. The majority (39, 21.8%) of the respondents in the Pakistani sample had income levels Pakistani rupees (PKR) between 30,001 to 35,000, while in the Finnish sample 52 (25.1%) and 37 (17.9%) respondents had income levels of 501–999 and 2,000–2,499, respectively.

5.2 Discriminant validity

The Pearson correlation test of statistics was used to view the interrelationship between the variables. For evaluating the reliability and convergent validity, the authors computed composite reliability (CR) and average variance extracted (AVE). In addition, the square root of AVEs was computed to check the adequate discriminant validity that exceeds correlation coefficients between the pair of corresponding constructs (see Tables 1 and 2).

Table 1 Discriminant validity (Finland)

Variables	*HI*	*Pro*	*Pre*	*EA*	*PI*	*CR*	*AVE*
HI	(*0.79*)					0.757	0.626
Pro	.387**	(*0.78*)				0.819	0.601
Pre	–.036	.012	(*0.83*)			0.871	0.692
EA	.260**	.228**	–.137*	(*0.78*)		0.887	0.612
PI	.160*	.147*	–.078	.727**	(*0.88*)	0.930	0.770

Table 2 Discriminant validity (Pakistan)

Variables	*VC*	*Pro*	*Pre*	*EA*	*PI*	*CR*	*AVE*
VC	(*0.86*)					0.852	0.743
Pro	.085	(*0.79*)				0.776	0.636
Pre	.360**	.100	(*0.79*)			0.839	0.636
EA	.444**	.137	.577**	(*0.75*)		0.796	0.567
PI	.273**	.194**	.499**	.443**	(*0.80*)	0.842	0.640

Notes: Values of square root of AVEs are shown diagonally in parentheses.
**Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed).

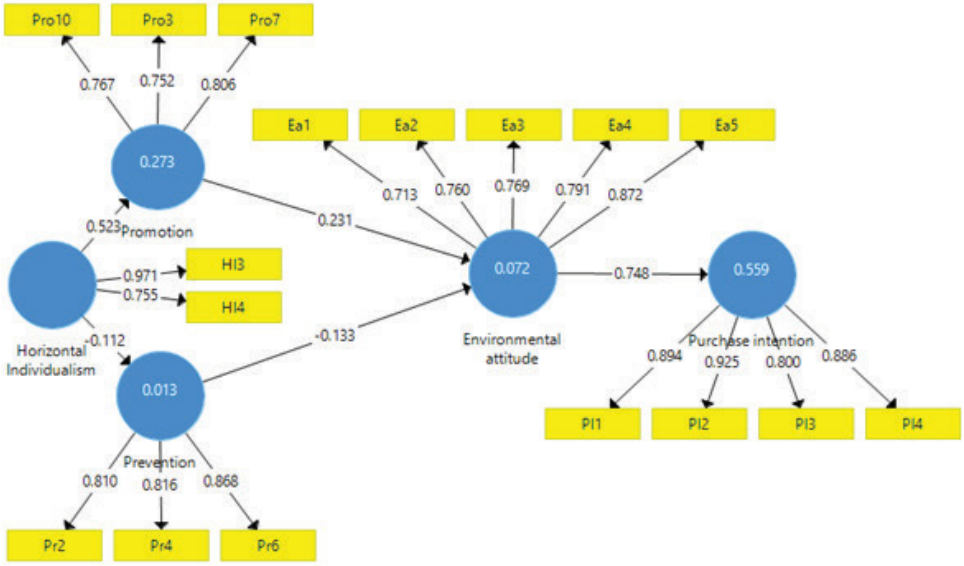
5.3 Structural equation modelling analysis

To test the relationship in the research model as specified during the conceptualisation stage, the authors used a SEM approach (Diamantopoulos and Siguaw, 2000). Hair et al. (2006) argue that SEM is a collection of statistical models that helps researchers simultaneously examine the interrelationship between different variables. Therefore, to analyse the data and check the hypothesised relationship of the model, the authors employed partial least squares (PLS) SmartPLS software. PLS is prediction-orientated SEM-based software that is convenient and works well with smaller datasets (Henseler et al., 2009). A two-step SEM analysis approach was performed on the data (Anderson and Gerbing, 1988).

5.4 Measurement model

There are five latent variables in each model of the two samples that employ the reflective measurement model on each of the different items of the scale. Loadings of all the factors showed adequate convergent validity, which indicates acceptable internal consistency above the recommended value of 0.50 (Fornell and Larcker, 1981) (see Figures 1 and 2).

Figure 2 Measurement model (Finland) (see online version for colours)



5.5 Structural model estimation hypotheses result

The first step in structural model estimation processes is to calculate the value of R^2, which shows the amount of variance in a dependent variable by independent variables. In the current model, the value of R^2 for Finland was 0.55 and for Pakistan was 0.20, which demonstrates considerable significance for the interpretation of the variance. After this step, the cross-validated redundancy measures, called Q^2, were calculated using blindfolding command in PLS and resulted in values of 0.39 for Finland and 0.23 for Pakistan. In the next step, to estimate the accuracy of the measurement model, calculate the path coefficients and generate t-values, the authors ran a bootstrapping method for sampling test (Roldán and Sánchez-Franco, 2012). The path coefficients showed the strength of the relationship between the independent and dependent variables of the model. The hypotheses of this study were examined using the path coefficients. The data in the first model of Finland accounted for 55% of the variance in the dependent variable. Regarding the first hypothesis result, the data demonstrate that HI positively influences consumers' promotion-focused orientations ($\beta = 0.523$, $p < 0.05$). Therefore, H1a is accepted. Regarding the influence of HI on prevention focus ($\beta = 1.112$, $p > 0.05$) H1b is also accepted because the effect was insignificant. The influence of promotion focus on environmental attitudes was found positive ($\beta = 0.231$, $p < 0.05$) so H1c is accepted. The

influence of prevention focus on consumers' environmental attitudes was negative (β = –0.133, p > 0.05). Therefore, H1d is also accepted. Last, the influence of environmental attitudes on purchase intentions was found positive (β = 0.748, p < 0.05), so H1e is accepted.

Figure 3 Measurement model (Pakistan) (see online version for colours)

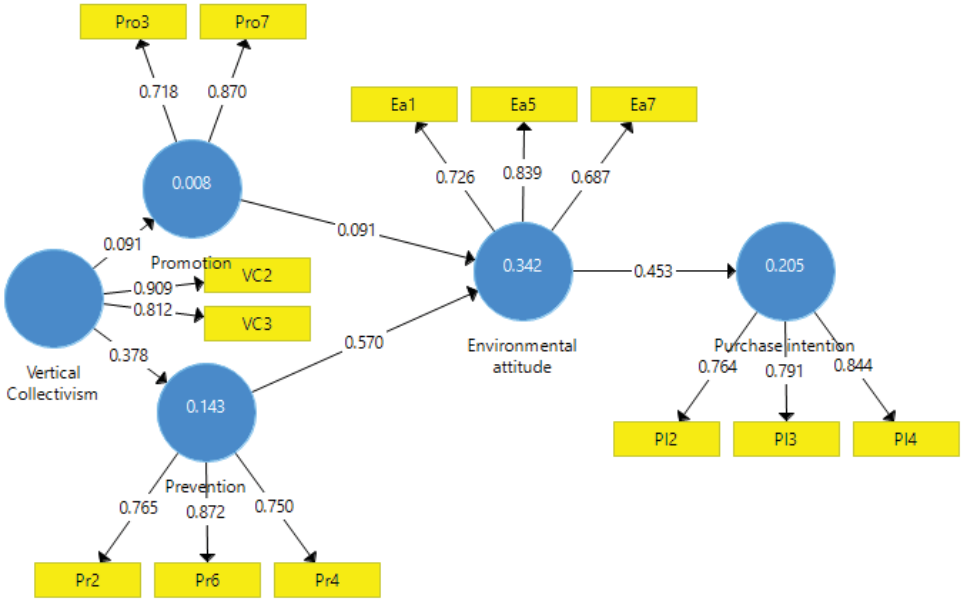


Table 3 Hypotheses result

Hypotheses	*Hypothesised path*	*B*	*t-value*	*P-value*	*Label*
		Finland			
H1a	HI → Pro	0.523	8.689	0.000	Accept
H1b	HI → Pre	– 0.112	1.246	0.215	Accept
H1c	Pro → EAt	0.231	3.179	0.001	Accept
H1d	Pre → EAt	–0.133	1.646	0.100	Accept
H1e	EAt → PI	0.748	23.132	0.000	Accept
		Pakistan			
H2a	VC → Pre	0.378	5.257	0.000	Accept
H2b	VC → Pro	0.091	1.078	0.281	Accept
H2c	Pre → EAt	0.570	8.946	0.000	Accept
H2d	Pro → EAt	0.091	1.240	0.251	Accept
H2e	EAt → PI	0.453	6.672	0.000	Accept

Notes: Model fit: Finland (R^2 = 0.55, Q^2 = 0.39), Pakistan (R^2 = 0.20, Q^2 = 0.23).
p < 0.05.

The data in the second model of Pakistan accounted for 20% of variance in the dependent variable. The results demonstrate that VC has insignificant influence on consumers' promotion-focused orientations ($\beta = 0.091$, $p > 0.05$), resulting in an acceptance of H2a, but positively influences prevention-focus orientations ($\beta = 0.378$, $p < 0.05$), so H2b cannot be accepted. The authors accept H2c because the influence of prevention-focused orientations on environmental attitudes was positive ($\beta = 0.570$, $p < 0.05$). The influence of promotion-focused orientation on environmental attitudes was found to be insignificant ($\beta = 0.091$, $p > 0.05$), so H2d is also accepted. Last, the authors found that there was a positive influence of environmental attitudes on purchase intentions, thus leading to an acceptance of H2e ($\beta = 0.453$, $p < 0.05$) (see Tables 3 and 4).

6 Discussion

This study examines the regulatory focus perspectives of consumers on their environmental products' attitude and purchase intentions, comparing two countries based on horizontal and vertical IND/COL cultural differences. It was conceptualised that consumers from a HI culture country (Finland) would be promotion-focused, while consumers from a VC culture country (Pakistan) would be prevention-focused; consequently, the regulatory focus orientations of consumers in the selected countries would affect their environmental products' attitude. The authors were able to find significant research evidence relating RFT to attitudes and purchase intentions in cross-cultural contexts, which is uniquely different from related research on the topic (Kareklas et al., 2012; Chen et al., 2015; Onwezen et al., 2014). In the context of environmental choices, previous research has divided consumers into pro-self and pro-others (interdependent versus dependent selves) or into IND/COL, thus assuming their environmentally friendly choices are different. In general, the present analysis contributes to earlier research about how RFT can be different across cultures (Higgins, 1997; Shavitt et al., 2006; Poels and Dewitte, 2008), specifically in HI and VC countries (Cho et al., 2013; Waylen et al., 2012). This research improves existing research on the compatibility of RFT in such cultures in terms of environmental behaviour. To date, no research has been conducted on examining the influence of HI vs. VC on RFT and consequently on environmental behaviour in cross-cultural context, therefore; our study is the first to examine this relationship. The authors were able to reveal interesting findings. For instance, since consumers in HI cultures are low power distance societies and categorised by characteristics such as equality, uniqueness and self-reliance, the results of this study clearly show that they are promotion focused. It means that HI or Finnish consumers are promotion-focused and their characteristics align when consumers choose environmentally friendly products. On the other hand, when buying environmentally friendly products, the main goals of VC or Pakistani consumers are prevention-focused, which are compatible with VC cultural values. In other words, HI consumers may buy environmentally friendly products to achieve gains including health and an ideal state of mind, satisfaction and hedonism, therefore; hoping that their purchases for such gains will make a difference in achieving environmental protection. Consequently, the features of environmentally friendly products match their promotion-focused orientations and HI cultural values. On the contrary, VC orientated consumers are sensitive to losses, so they may buy environmentally friendly products to stop further losses to the environment, prevent pollution and save themselves and their

families from the problems created by environmental degradation. This study has helped in identifying the most important elements of environmental behaviour in cross-cultural context. For instance, HI vs. VC and RFT interplay will not only change the way we see green buying behaviour of consumers in the two countries, but also motivate companies to produce environmental friendly products to improve their brand image, competitive advantage, and increase overall business performance.

7 Managerial implications

Several managerial implications and insights can emerge from the findings of the present study, which demonstrates that the success of marketers in cross-cultural contexts depends on their ability to satisfy the value-based needs and motives of consumers who experience regulatory fit in Finland and Pakistan. For instance, a consumer in an HI culture may buy a green product for health, social and ethical reasons, while a consumer in a VC culture may buy the same product for group benefits, such as regulating their health and that of their family, or for the purpose of being respected by others. In this regard, in HI markets such as Finland, there may be high demand for products that are low in calories, of good quality and nutritious, such as food and beverages, organic clothes and organic reusable apparel, toxic and chemical free products such as utensils, colour and paints, and the products that gives benefits when buying to farmers, agriculture, humans and animals. In VC cultures such as the Pakistani market, products such as organic beauty and fashion products, eco-friendly transport and cars, organic dishwashing liquid and green white goods can be marketed well. Regulatory focus plays an important role in consumers' environmentally friendly choices in the selected countries. Therefore, companies should pay attention to create products and services identical to their culture-goal fit. Brands carry different meanings and companies can identify the most viable consumer base for their products and services. For example, a positive consumer response will be generated in HI cultures when consumers are exposed to advertisements such as promotions to gain healthy bodies and lifestyles, discourage unhealthy habits and communicate the positive impact of environmentally friendly products on the Earth, people, the environment and animals. On the contrary, the following advertisements may be effective in VC culture countries: those that portray environmentally friendly messages such as benefits to families and groups, those displaying the advantages of environmentally friendly products, e.g., how they prevent environmental degradation and atmospheric pollution and are less damaging than conventional products, and those that enhance consumers' social image in society or in groups. We conclude that, the findings of this study are novel and unique for marketers of environmentally friendly products to capitalise their marketing and advertising strategies in HI and VC cultures.

8 Limitations and future research

Like other research studies, the current study is not immune from some limitations. First, this study was conducted in only one HI and one VC cultural country context. Therefore, it would be valuable to examine whether the findings are generalisable in other countries

and across different cultural contexts. Second, in the context of environmentally friendly choices, the RFT scores clearly indicated the regulatory focus characteristics of the selected HI versus VC cultures. The results may vary and indicate different findings if and when regulatory focus conditions are manipulated and construed for other products and behavioural intentions, so future studies should examine this. Third, there can be moderating effects of some factors such as consumers' demographics or other external factors on the relationship between culture, regulatory focus and environmental attitudes. Thus, future studies might examine the role of such factors. Fourth, the sample size in both countries was small and may prevent researchers from generalising the findings on an overall population. Last, the interplay of RFT can be examined in HC and VI cultures when predicting environmental behaviour of consumers to see if it is suitable.

References

Aaker, J.L. and Lee, A.Y. (2001) ''I' seek pleasures and 'we' avoid pains: the role of self-regulatory goals in information processing and persuasion', *Journal of Consumer Research*, Vol. 28, No. 1, pp.33–49.

Aaker, J.L. and Lee, A.Y. (2006) 'Understanding regulatory fit', *Journal of Marketing Research*, Vol. 43, No. 1, pp.15–19.

Anderson, J.C. and Gerbing, D.W. (1988) 'Structural equation modeling in practice: a review and recommended two-step approach', *Psychological Bulletin*, Vol. 103, No. 3, pp.411–423.

Arpaci, I. (2017) 'Culture and nomophobia: the role of vertical versus horizontal collectivism in predicting nomophobia', *Information Development*, p.0266666917730119.

Aryee, S. and Hsiung, H.H. (2016) 'Regulatory focus and safety outcomes: an examination of the mediating influence of safety behaviour', *Safety Science*, Vol. 86, pp.27–35.

Ashraf, A.R., Razzaque, M.A. and Thongpapanl, N.T. (2016) 'The role of customer regulatory orientation and fit in online shopping across cultural contexts', *Journal of Business Research*, Vol. 69, No. 12, pp.6040–6047.

Avnet, T. and Higgins, E.T. (2006) 'How regulatory fit affects value in consumer choices and opinions', *Journal of Marketing Research*, Vol. 43, No. 1, pp.1–10.

Bhatnagar, N. and McKay-Nesbitt, J. (2016) 'Pro-environment advertising messages: the role of regulatory focus', *International Journal of Advertising*, Vol. 35, No. 1, pp.4–22.

Bu, K., Kim, D. and Son, J. (2013) 'Is the culture-emotion fit always important? Self-regulatory emotions in ethnic food consumption', *Journal of Business Research*, Vol. 66, No. 8, pp.983–988.

Bullard, O. and Manchanda, R.V. (2013) 'Do sustainable products make us prevention focused?', *Marketing Letters*, Vol. 24, No. 2, pp.177–189.

Chen, H., Ng, S. and Rao, A.R. (2005) 'Cultural differences in consumer impatience', *Journal of Marketing Research*, Vol. 42, No. 3, pp.291–301.

Chen, N.H., Lee, C.H. and Huang, C.T. (2015) 'Why buy organic rice? Genetic algorithm-based fuzzy association mining rules for means-end chain data', *International Journal of Consumer Studies*, Vol. 39, No. 6, pp.692–707.

Cho, Y.N., Thyroff, A., Rapert, M.I., Park, S.Y. and Lee, H.J. (2013) 'To be or not to be green: exploring individualism and collectivism as antecedents of environmental behaviour', *Journal of Business Research*, Vol. 66, No. 8, pp.1052–1059.

Chowdhury, G.T., Micu, C., Ratneshwar, S. and Kim, E.A. (2015) 'What to get and what to give up: how different decision tasks and product types affect the persuasiveness of promotion-versus prevention-focused messages', *Psychology & Marketing*, Vol. 32, No. 9, pp.920–933.

Diamantopoulos, A. and Siguaw, J.A. (2000) *Introducing LISREL*, Sage, Thousand Oaks, CA.

Fornell, C. and Larcker, D.F. (1981) 'Evaluating structural equation models with unobservable variables and measurement error', *Journal of Marketing Research*, Vol. 18, No. 1, pp.39–50.

Fowler III, A.R. and Close, A.G. (2012) 'It ain't easy being green: macro, meso, and micro green advertising agendas', *Journal of Advertising*, Vol. 41, No. 4, pp.119–132.

Grunert, K.G., Lähteenmäki, L., Boztug, Y., Martinsdóttir, E., Ueland, Ø., Åström, A. and Lampila, P. (2009) 'Perception of health claims among Nordic consumers', *Journal of Consumer Policy*, Vol. 32, No. 3, pp.269–287.

Gupta, S. and Ogden, D.T. (2009) 'To buy or not to buy? A social dilemma perspective on green buying', *Journal of Consumer Marketing*, Vol. 26, No. 6, pp.376–391.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R.L. (2006) *Multivariate Data Analysis*, Vol. 6, Pearson Prentice Hall, Upper Saddle River, NJ.

Haught, H.M., Rose, J., Geers, A. and Brown, J.A. (2015) 'Subjective social status and well-being: the role of referent abstraction', *The Journal of Social Psychology*, Vol. 155, No. 4, pp.356–369.

Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009) 'The use of partial least squares path modeling in international marketing', in Sinkovics, R.R. and Ghauri, P.N. (Eds.): *Advances in International Marketing*, Vol. 20, pp.277–320, Emerald Group, Bingley, UK.

Higgins, E.T. (1997) 'Beyond pleasure and pain', *American Psychologist*, Vol. 52, No. 12, p.1280.

Higgins, E.T. (2012) 'Regulatory focus theory', *Handbook of Theories of Social Psychology*, Vol. 1, pp.483–504.

Higgins, E.T., Friedman, R.S., Harlow, R.E., Idson, L.C., Ayduk, O.N. and Taylor, A. (2001) 'Achievement orientations from subjective histories of success: promotion pride versus prevention pride', *European Journal of Social Psychology*, Vol. 31, No. 1, pp.3–23.

Higgins, E.T., Pierro, A. and Kruglanski, A.W. (2007) 'Re-thinking culture and personality: how self-regulatory universals create cross-cultural differences', in Sorrentino, R. (Ed.): *Handbook of Motivation and Cognition within and across Cultures*, pp.102–134, Guilford Press, New York.

Hofstede, G. (1980) 'Motivation, leadership, and organization: do American theories apply abroad?', *Organizational Dynamics*, Vol. 9, No. 1, pp.42–63.

Hsu, C.L. and Chen, M.C. (2014) 'Explaining consumer attitudes and purchase intentions toward organic food: contributions from regulatory fit and consumer characteristics', *Food Quality and Preference*, Vol. 35, No. 7, pp.6–13.

Imam, F. (2013) 'Individualism-collectivism as related to voting behavior of youth and adults in Pakistan', *New Horizons*, Vol. 7, No. 2, p.1.

Jamal, A. and Sharifuddin, J. (2015) 'Perceived value and perceived usefulness of halal labeling: the role of religion and culture', *Journal of Business Research*, Vol. 68, No. 5, pp.933–941.

Kareklas, I., Carlson, J.R. and Muehling, D.D. (2012) 'The role of regulatory focus and self-view in 'green' advertising message framing', Journal *of Advertising*, Vol. 41, No. 4, pp.25–39.

Khatri, N., Tsang, E.W. and Begley, T.M. (2006) 'Cronyism: a cross-cultural analysis', *Journal of International Business Studies*, Vol. 37, No. 1, pp.61–75.

Kollmuss, A. and Agyeman, J. (2002) 'Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?', *Environmental Education Research*, Vol. 8, No. 3, pp.239–260.

Komarraju, M. and Cokley, K.O. (2008) 'Horizontal and vertical dimensions of individualism-collectivism: a comparison of African Americans and European Americans', *Cultural Diversity and Ethnic Minority Psychology*, Vol. 14, No. 4, p.336.

Kruglanski, A.W. (2006) 'The nature of fit and the origins of 'feeling right': a goal-systemic perspective', *Journal of Marketing Research*, Vol. 43, No. 1, pp.11–14.

Lee, A.Y. and Aaker, J.L. (2004) 'Bringing the frame into focus: the influence of regulatory fit on processing fluency and persuasion', *Journal of Personality and Social Psychology*, Vol. 86, No. 2, p.205.

Lee, A.Y., Aaker, J.L. and Gardner, W.L. (2000) 'The pleasures and pains of distinct self-construal: the role of interdependence in regulatory focus', *Journal of Personality and Social Psychology*, Vol. 78, No. 6, p.1122.

Lu, L.C., Chang, H.H. and Yu, S.T. (2013) 'Online shoppers' perceptions of e-retailers' ethics, cultural orientation, and loyalty: an exploratory study in Taiwan', *Internet Research*, Vol. 23, No. 1, pp.47–68.

Luomala, H.T., Kumar, R., Singh, J.D. and Jaakkola, M. (2015) 'When an intercultural business negotiation fails: comparing the emotions and behavioural tendencies of individualistic and collectivistic negotiators', *Group Decision and Negotiation*, Vol. 24, No. 3, pp.537–561.

Markus, H.R. and Kitayama, S. (1991) 'Culture and the self: implications for cognition, emotion, and motivation', *Psychological Review*, Vol. 98, No. 2, p.224.

McCarty, J.A. and Shrum, L.J. (2001) 'The influence of individualism, collectivism, and locus of control on environmental beliefs and behaviour', *Journal of Public Policy & Marketing*, Vol. 20, No. 1, pp.93–104.

Miniero, G., Codini, A., Bonera, M., Corvi, E. and Bertoli, G. (2014) 'Being green: from attitude to actual consumption', *International Journal of Consumer Studies*, Vol. 38, No. 5, pp.521–528.

Moisander, J. (2007) 'Motivational complexity of green consumerism', *International Journal of Consumer Studies*, Vol. 31, No. 4, pp.404–409.

Mostafa, M.M. (2007) 'Gender differences in Egyptian consumers' green purchase behaviour: the effects of environmental knowledge, concern and attitude', *International Journal of Consumer Studies*, Vol. 31, No. 3, pp.220–229.

Onwezen, M.C., Bartels, J. and Antonides, G. (2014) 'The self-regulatory function of anticipated pride and guilt in a sustainable and healthy consumption context', *European Journal of Social Psychology*, Vol. 44, No. 1, pp.53–68.

Ouschan, L., Boldero, J.M., Kashima, Y., Wakimoto, R. and Kashima, E.S. (2007) 'Regulatory focus strategies scale: a measure of individual differences in the endorsement of regulatory strategies', *Asian Journal of Social Psychology*, Vol. 10, No. 4, pp.243–257.

Park, H., Russell, C. and Lee, J. (2007) 'National culture and environmental sustainability: a cross-national analysis', *Journal of Economics and Finance*, Vol. 31, No. 1, pp.104–121.

Parker, A.G. and Grinter, R.E. (2014) 'Collectivistic health promotion tools: accounting for the relationship between culture, food and nutrition', *International Journal of Human-Computer Studies*, Vol. 72, No. 2, pp.185–206.

Paul, J., Modi, A. and Patel, J. (2016) 'Predicting green product consumption using theory of planned behavior and reasoned action', *Journal of Retailing and Consumer Services*, Vol. 29, pp.123–134.

Pentina, I., Bailey, A.A. and Zhang, L. (2018) 'Exploring effects of source similarity, message valence, and receiver regulatory focus on yelp review persuasiveness and purchase intentions', *Journal of Marketing Communications*, Vol. 24, No. 2, pp.125–145.

Poels, K. and Dewitte, S. (2008) 'Hope and self-regulatory goals applied to an advertising context: promoting prevention stimulates goal-directed behavior', *Journal of Business Research*, Vol. 61, No. 10, pp.1030–1040.

Pula, K., Parks, C.D. and Ross, C.F. (2014) 'Regulatory focus and food choice motives. Prevention orientation associated with mood, convenience, and familiarity', *Appetite*, Vol. 78, pp.15–22.

Quazi, A., Amran, A. and Nejati, M. (2016) 'Conceptualizing and measuring consumer social responsibility: a neglected aspect of consumer research', *International Journal of Consumer Studies*, Vol. 40, No. 1, pp.48–56.

Roldán, J.L. and Sánchez-Franco, M.J. (2012) 'Variance-based structural equation modeling: guidelines for using partial least squares in information systems research', in *Research Methodologies, Innovations and Philosophies in Software Systems Engineering and Information Systems*, pp.193–221, IGI Global.

Sandhu, M.S. and Ching, P.W. (2014) 'Relationship between individual cultural values and knowledge sharing in selected multinational companies in Malaysia', *International Journal of Business and Economics*, Vol. 13, No. 1, p.1.

Shah, J., Higgins, T. and Friedman, R.S. (1998) 'Performance incentives and means: how regulatory focus influences goal attainment', *Journal of Personality and Social Psychology*, Vol. 74, No. 2, p.285.

Shavitt, S. and Cho, H. (2016) 'Culture and consumer behaviour: the role of horizontal and vertical cultural factors', *Current Opinion in Psychology*, Vol. 8, pp.149–154.

Shavitt, S., Lalwani, A.K., Zhang, J. and Torelli, C.J. (2006) 'The horizontal/vertical distinction in cross-cultural consumer research', *Journal of Consumer Psychology*, Vol. 16, No. 4, pp.325–342.

Shavitt, S., Torelli, C.J. and Wong, J. (2009) 'Identity-based motivation: constraints and opportunities in consumer research', *Journal of Consumer Psychology*, Vol. 19, No. 3, pp.261–266.

Shukla, P., Singh, J. and Banerjee, M. (2015) 'They are not all same: variations in Asian consumers' value perceptions of luxury brands', *Marketing Letters*, Vol. 26, No. 3, pp.265–278.

Singelis, T.M., Triandis, H.C., Bhawuk, D.P. and Gelfand, M.J. (1995) 'Horizontal and vertical dimensions of individualism and collectivism: a theoretical and measurement refinement', *Cross-Cultural Research*, Vol. 29, No. 3, pp.240–275.

Sivadas, E., Bruvold, N.T. and Nelson, M.R. (2008) 'A reduced version of the horizontal and vertical individualism and collectivism scale: a four-country assessment', *Journal of Business Research*, Vol. 61, No. 3, pp.201–210.

Soyez, K. (2012) 'How national cultural values affect pro-environmental consumer behavior', *International Marketing Review*, Vol. 29, No. 6, pp.623–646.

Torres, C.V. and Pérez-Nebra, A.R. (2007) 'The influence of human values on holiday destination choice in Australia and Brazil', *BAR-Brazilian Administration Review*, Vol. 4, No. 3, pp.63–76.

Triandis, H.C. and Gelfand, M.J. (1998) 'Converging measurement of horizontal and vertical individualism and collectivism', *Journal of Personality and Social Psychology*, Vol. 74, No. 1, p.118.

Tuan Pham, M. and Chang, H.H. (2010) 'Regulatory focus, regulatory fit, and the search and consideration of choice alternatives', *Journal of Consumer Research*, Vol. 37, No. 4, pp.626–640.

Van Lange, P.A., Joireman, J., Parks, C.D. and Van Dijk, E. (2013) 'The psychology of social dilemmas: a review', *Organizational Behaviour and Human Decision Processes*, Vol. 120, No. 2, pp.125–141.

Wang, Y. (2014) 'Individualism/collectivism, charitable giving, and cause-related marketing: a comparison of Chinese and Americans', *International Journal of Nonprofit and Voluntary Sector Marketing*, Vol. 19, No. 1, pp.40–51.

Waylen, K.A., Fischer, A., McGowan, P.J. and Milner-Gulland, E.J. (2012) 'Interactions between a collectivist culture and Buddhist teachings influence environmental concerns and behaviours in the Republic of Kalmykia, Russia', *Society & Natural Resources*, Vol. 25, No. 11, pp.1118–1133.

Wong, J., Newton, J.D. and Newton, F.J. (2014) 'Effects of power and individual-level cultural orientation on preferences for volunteer tourism', *Tourism Management*, Vol. 42, 132–140.

Yi-Cheon Yim, M.L., Sauer, P., Williams, J., Lee, S.J. and Macrury, I. (2014) 'Drivers of attitudes toward luxury brands: a cross-national investigation into the roles of interpersonal influence and brand consciousness', *International Marketing Review*, Vol. 31, No. 4, pp.363–389.

Zagata, L. (2014) 'Towards conscientious food consumption: exploring the values of Czech organic food consumers', *International Journal of Consumer Studies*, Vol. 38, No. 3, pp.243–250.

Zhang, J. and Nelson, M.R. (2016) 'The effects of vertical individualism on status consumer orientations and behaviours', *Psychology & Marketing*, Vol. 33, No. 5, pp.318–330.

Uncovering the role of horizontal individualism and vertical collectivism influence on consumers' responsible environmental behavior

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Abstract

This study examines the attitudes and purchase intentions of Finnish, (i.e., horizontal individualistic (HI) culture) and of Pakistani, (i.e., vertical collectivistic (VC) culture) consumers towards environmentally friendly products. Further, the mediating role of environmental responsibility is examined for these cultural value orientations and associated environmental attitudes (EA). The results show an insignificant influence of HI-Finland and VC-Pakistan on consumers' environmental attitudes (EA), but a positive influence on their environmental responsibility (ER). The impact of ER on EA and of EA on PI was also positive. ER plays the role of a full mediator between cultural variables and EA in both countries. This study has several theoretical and managerial implications for academics and practitioners in the field of sustainable marketing research and practice.

Keywords: Horizontal individualism, Vertical collectivism, Environmental responsibility, Environmental attitude, Purchase intentions

1 Introduction

For many years, research efforts have sought to examine and understand consumers' motives when choosing green or environmentally friendly products. However, understanding a "green consumer" is not easy. Although the majority of consumers around the globe identify themselves as pro-environmentalist, they fail to see themselves as environmentally conscious consumers (Cornelissen et al., 2008). Consumers may show positive attitudes towards environmentally friendly products but most often they do not purchase these products (Morwitz, Steckel and Gupta, 2007), showing a gap between their environmental beliefs and their actions (Liobikiene & Juknys, 2016). This may be because there are differences with respect to personality, culture and social traits across different cultures, leading to environmental behaviour which is not homogeneous (Howell, 2013).

Recently, in the domain of sustainable consumption research, researchers have argued that to promote sustainable consumption, it is necessary to study social and cultural aspects of consumption in the environmental concerns of consumers (Costa Pinto et al., 2016). Numerous studies have attempted to point to environmental behaviour as an indicator of consumers' cultural differences, but with inconsistent results. For instance, studies revealed that consumers in individualistic (IND) countries show more egocentric environmental concerns but consumers from traditional collectivistic (COL) countries show altruistic environmental concerns (Milfont, Duckitt & Cameron, 2006). Some argue that it is possible that behaviour performed in the collective interest rather than in the individual's own interest may appear to increase consumers' green behaviour (Kim & Choi, 2005). Others contend that environmentally aware consumption is more appropriate to consumers focused on obtaining egoistic/selfish benefits (Stern & Dietz, 1994). It is also possible that when consumers consider sustainable choices, certain values may conflict or

lack salience (van Zomeren, 2014) and regardless of general consumption of sustainable products for individualistic or collectivistic reasons, a consumer in a specific culture may consume these products for both individualistic, (i.e., pro-self) and collectivistic, (i.e., pro-others) reasons, including environmental and social motives (pro-social) (Moisander, 2007; Gupta & Ogden, 2009). As a result, despite many research efforts, understanding cross-cultural consumers' pro-environmental behaviour is far more complex than was previously thought (Gifford & Nilsson, 2014).

The extensive research on IND vs COL offers an interesting avenue for understanding consumers' environmental choices. For example, what are the culturally congruent and incongruent motives that are important to consumers in IND vs COL cultures? Are there any culturally specific features of certain types of green or environmentally friendly products that consumers prefer? Are consumers in IND or COL cultures similar or different with regard to environmental responsibility? Answering these questions can give useful information to policymakers, manufacturers and marketers. To reconcile the attitude-intention gap in environmental behaviour research, this study therefore attempts to answer these questions, based on the following two objectives. The first is to seek a new cross-cultural conceptualization of sustainable consumption, going beyond the old myth of the reductionist IND/COL perspective (McCarty & Shrum, 2001; Laroche et al., 2001; Soyez, 2012), thus using a horizontal and vertical individualism and collectivism (HV I-C) typology (Shavitt et al., 2006; Singelis et al., 1995; Triandis & Gelfand, 1998). In this study, we specifically selected two countries: a) Finland (horizontal individualistic) (Triandis & Gelfand, 1998; Khatri, Tsang & Begley, 2006) and b) Pakistan (vertical collectivistic) (Imam, 2013), as the research context. For instance, sustainable consumption research suffers from relying on outdated cultural frameworks, rather than explicitly considering the new models

(Morren & Grinstein, 2016), thus failing to understand sustainable consumption motives and viable routes to sustainability and serving as a barrier to understanding consumers' green motives (Yaprak, 2008). Therefore, there is a need for theories grounded in specific contexts, to move the field forward and guide the policymakers, marketers and consumers (Nair & Little, 2016).

The second objective is to examine the mediating role of environmental responsibility for HI vs VC and the relationship with environmental attitudes. For instance, according to Schwartz (1968), perceived responsibility for environmental damage refers to the degree to which a person believes that he or she is directly or indirectly responsible to harm the environment. Although, many consumers believe themselves to be environmentally responsible but merely act according to their values and attitudes (Schlaile, Klein & Bock, 2018). Environmentally concerned consumers feel responsible for protecting the environment in terms of their personal habits, lifestyles and purchases (Kinnear, Taylor & Ahmed, 1974; Follows & Jober, 2000). These consumers also prefer companies that give information and commitments towards environmental sustainability (Pawaskar, Raut, and Gardas, 2018). Moreover, environmental consumption is a form of socially responsible consumption in which consumers are willing to take responsibility for the environmental impact of their purchases (Quazi, Amran, & Nejati, 2016). Besides, environmental responsibility and social responsible consumption varies across different cultures, specifically in IND-self-enchanted vs COL-self-transcendent cultures (Schultz, 2002; Lee and Cho, 2018). In this regard, examining environmental responsibility as an intervening factor between cultural factors and environmental attitudes may help to better understand cross-cultural consumers' environmental behaviour. In the remainder of this article we address the literature review, theoretical framework and hypotheses development, the implied methodology, the findings and

results and the discussion and conclusion of the study. Finally, we discuss theoretical and marketing implications, study limitations and future research recommendations.

2 Literature Review

2.1 Theoretical Framework

Researchers in consumer psychology have used several frameworks to understand the consumer purchase decision process. One of the most common, widely applied and prominent of these frameworks is the theory of planned behaviour (TPB) (Ajzen, 1991; Armitage & Conner, 2001). TPB is an extension of the theory of reasoned action (TRA) framework. TPB remains the most useful framework for predicting consumers' behaviour, especially their socially responsible and environmental behaviour (Han & Stoel, 2017). In the TPB framework, perceived behavioural control means the control of any individual over his/her actions regarding any object, resulting in a sense of ease or unease in performing a certain behaviour. Subjective norm means the social pressure on an individual to perform a certain behaviour. Attitude is how positively or negatively any individual feels about the outcome of a particular behaviour. These three variables together shape an individual's behavioral intentions and behaviors.We used the EA and PI of the TPB framework with cultural variables HI, VC and ER (see Fig. 1.0).

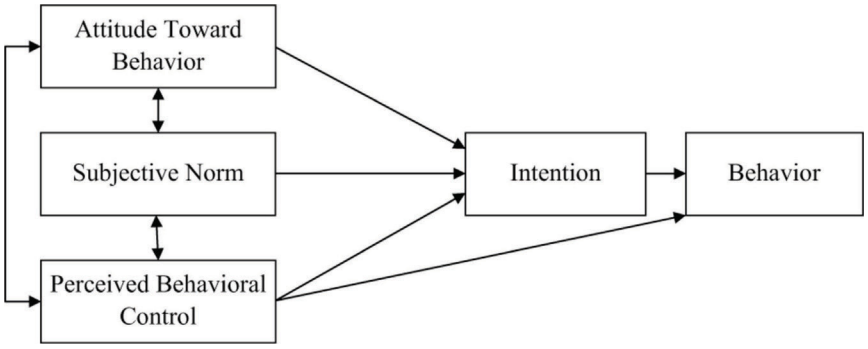

Fig 1.0 Theory of planned behavior (Ajzen, 1991)

2.2 Individualist vs Collectivist Cultural Orientations (IND/COL)

In consumer psychology, regarding the role of culture in predicting individual and collective consumer behaviour, research at the cultural level involves the broad concept of IND vs COL classification (Hofstede, 1980; Shavitt et al., 2006; Shavitt et al., 2011). This is one of the most commonly applied cultural classifications in cross-cultural consumer research (De Mooij & Hofstede, 2011). Broadly, the emphasis in IND societies is on an ‘‘I’’ consciousness, including factors such as emotional independence, autonomy, taking individual initiative, pleasure-seeking, the right to privacy, the need for specific friendships, financial security and universalism. In contrast, the emphasis in COL societies is on a ‘‘we’’ consciousness, including factors such as emotional dependence, collective identity, sharing, group solidarity, group decisions, obligations and duties (Hofstede, 1980; Chen & West, 2008). At a broad level, IND relates to self-enchantment and openness and COL relates to self-transcendence and the conservation of the personal values of Schwartz’s (1992) model.

However, IND/COL has been criticized by many researchers in terms of treating people as homogeneous in each culture, which seems to overlook the diversity of the population in those cultures. Hofstede’s cultural dimensions are subject to trial and error and are too simplistic to account for variability, so care should be taken in interpreting the research results (Singelis et al., 1995). It is also not necessarily true that a culture can be congruent with IND/COL. The IND/COL continuum explains a slight variation but cannot capture enough difference to make any credible recommendations (Oyserman et al., 2002). Many studies have considered IND/COL in predicting consumers’ environmental behaviour. The IND/COL division of considering selfish or collective reasons has become a de facto definition of consumers’ sustainable consumption behaviour across different countries (McCarty & Shrum, 2001; Laroche et al., 2001; Park et al., 2007; Soyez, 2012)

but with unconvincing results. This may be due to disregarding the capture of the variability of cultural values and motives, such as personal, social and other related important motives, in environmental behaviour (Gifford, & Nilsson, 2014; Soron, 2010).

2.3 Horizontal/Vertical Individualism vs Collectivism (H/V IND vs COL)

Singelis et al., (1995) and Triandis and Gelfand (1998) treated IND/COL cultures as vertical or horizontal. Horizontal/vertical IND/COL orientations predict different personal values, goals, normative expectations and power concepts, beyond the broader IND/COL classification (Triandis, 1995) (see Fig. 2.0). The authors divided IND/COL orientations into four distinct cultural patterns: a) vertical individualistic (VI) (France, Great Britain (GB) and the United States (US), where people emphasize hierarchy, power, individual competition and being different and notable, b) horizontal individualistic (HI) (Denmark, Norway, Sweden, Australia), where people emphasize equality, independence, self-reliance and uniqueness, c) vertical collectivistic (VC) (India, Japan, Korea) where people are submissive, comply with authority, preserve unity, prioritize group benefits, goals and interests, and accept inequality and d) horizontal collectivistic (HC) where people emphasize equity, group commonality, sociability and interdependence. Horizontal and vertical IND-COL patterns are like the combination of the scores for Hofstede's dimensions, (e.g., individualism/collectivism and power distance) (Shavitt & Cho, 2016). H-V IND/COL societies are structured around specific dominant attitudes in the field of consumer behaviour. How consumers react to advertisements, brands and service providers in the marketplace, and how they respond to others and to their needs, are based on H/V IND-COL orientations (Shavitt et al., 2011). For instance, HI consumers show positive attitudes towards the environment and display interest in efforts to address people's food and nutritional practices (Cho et al., 2013; Parker & Grinter, 2014). On the other hand, VC-oriented consumers are inclined to

normative interpersonal influences and other-directed symbolism (Yi-Cheon Yim et al., 2014; Shukla et al., 2015).

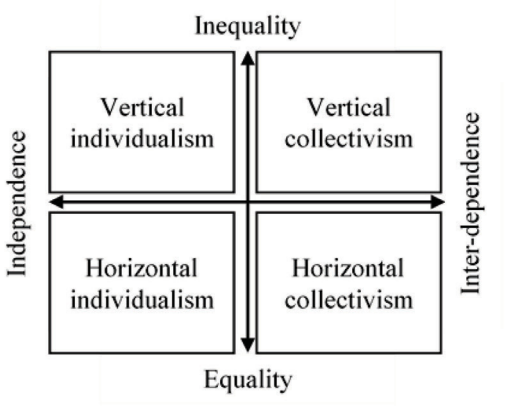

Fig 2.0 H/V IND vs COL (Triandis and Gelfand, 1998)

3 Hypotheses Development

3.1 Horizontal IND vs Vertical COL and Environmental Behaviour

Consumer research is not limited to the understanding of acquisitive processes but is also concerned with socially responsible consumption (Shavitt and Cho, 2016; Webb et al., 2008). Someone with a personal and social profile will be more likely to be pro-environmental and to act accordingly (Gifford & Nilsson, 2014). Likewise, sustainable consumption is a form of socially responsible consumption in which consumers are willing to take responsibility for the environmental impact of their purchases (Quazi et al., 2016). Cultural and consumer behaviour research has examined social behaviours such as choosing socially responsible brands and making charity donations (Winterich & Zhang, 2014; Torelli et al., 2011). These pro-social, responsible consumer decisions are highlighted by earlier research on cultural differences in hierarchy and power dimensions, and are similar to H/V IND vs COL (Shavitt et al., 2011).

For instance, sustainable consumption means the consumption of products that are free from chemicals and therefore good for health, society and the environment (First & Brozina, 2009). Many intrinsic and extrinsic qualities are pointed out as drivers that affect different types of consumer motivations to buy environmentally friendly or sustainable products. The intrinsic qualities (such as taste, quality, healthiness, appearance, freshness and safety) represent egoistic or self-interested motivations. However, the extrinsic qualities (such as increased food security and supporting local agriculture and retailers) represent altruistic motivations (Birch et al., 2018). Consumers can also favour green products in order to seek status and an improved self-image or reputation (Oliver & Lee, 2010; Griskevicius et al., 2010). Since HI and VC societies are lower and higher on the hierarchy and power dimensions respectively, we therefore assume that consumers in Finland will show positive environmental attitudes for HI-specific motives such as uniqueness, self-reliance, etc., whereas in Pakistan, consumers will show a positive attitude towards the environment for VC-oriented reasons, such as benefits to family or social status. In addition, environmental responsibility prevails in HI and VC cultures. We already know that environmental attitudes vary with respect to cultural differences in countries with IND and COL cultures (Schultz, 2002; Soyez, 2012), specifically in the H/V IND vs COL countries (Cho et al., 2013). We therefore hypothesize that:

H1a. *HI cultural values positively influence consumers' environmental attitudes in Finland*

H2a. *VC cultural values positively influence consumers' environmental attitudes in Pakistan*

H1b. *HI cultural values positively influence consumers' environmental responsibility in Finland*

H2b. *VC cultural values positively influence consumers' environmental responsibility in Pakistan*

3.2 Mediating Role of Environmental Responsibility

When the self is perceived as a responsible agent for improving the environment, then environmental responsibility tends to rise (Eden, 1993). Environmental responsibility is the personal commitment of a consumer to protect the environment (Kumar & Ghodeswar, 2015). According to Mohr *et al,* (1995), in order to promote responsible environmental behaviour we need to enhance our understanding of the factors connected with individuals engaging in support of a sustainable future. When a consumer realizes the negative impact of environmental issues on their future, humans, and other living beings, he/she takes responsibility for protecting the environment. Therefore, he/she becomes more willing to solve problems and accept responsibility (Knopman, Susman & Landy, 1999; Paco & Rodrigues, 2016) in terms of personal habits, lifestyles and purchases (Kinnear et al., 1974; Follows & Jober, 2000). Consumers feel emotionally involved in issues related to environmental protection (Lee, 2009) and are guided by their sense of environmental responsibility when evaluating and forming opinions regarding green products (Miniero et al., 2014). Researchers have identified that environmental responsibility varies across different cultures (Schultz, 2002). The concept of environmental responsibility can also be regarded as a display of indirect socially responsible behaviour (Paco & Rodrigues, 2016; Shavitt et al., 2011). Based on this, we assume that environmental responsibility will act as an intervening variable in the relationship between HI vs VC and the environmental attitudes of consumers. It is therefore hypothesized that:

H1c and **H2c.** *Environmental responsibility will positively influence consumers' environmental attitudes in HI-Finland and VC-Pakistan (respectively)*

H1d and **H2d.** *Environmental responsibility will play the role of a mediating factor in the relationship between HI and VC and environmental attitudes*

3.3 Environmental Attitudes (EA) and Purchase Intention (PI)

EA is a crucial construct in environmental psychology, based on the tendencies of consumers to be influenced by human beliefs, affects and behaviours regarding the environment (Milfont & Duckitt, 2010). Several studies have demonstrated that attitudes predict consumers' environmental behaviour. For instance, Taufique & Vaithianathan (2018) found that consumers' attitudes towards the environment positively influence their behavioural intentions. EA is the perception of an individual in considering himself/herself as a part of the environment (Zelezney, Chua & Aldrich, 2000). Because each culture is unique with respect to values, attitudes and behaviours (Soyez, 2012), it is believed that the structure of environmental attitudes may be different in different societies (Gifford & Nilsson, 2014). Pisano & Lubell (2017) found that the relationships between environmental attitudes and behaviour may differ, depending on the economic, educational and environmental development of a country. In general, environmental attitude is one of the important factors in profiling green consumerism (Albayrak, Akosy & Caber, 2013). This means that if a consumer thinks positively regarding protecting the environment, then he/she will show pro-environmental perceptions, thereby influencing their purchase decisions (Morren & Grinstein, 2016; Nguyen, Lobo & Nguyen, 2017). Therefore, it is hypothesized that:

H3a and **H3b.** *Consumers' attitudes towards the environment will positively influence their purchase intentions in Finland and in Pakistan*

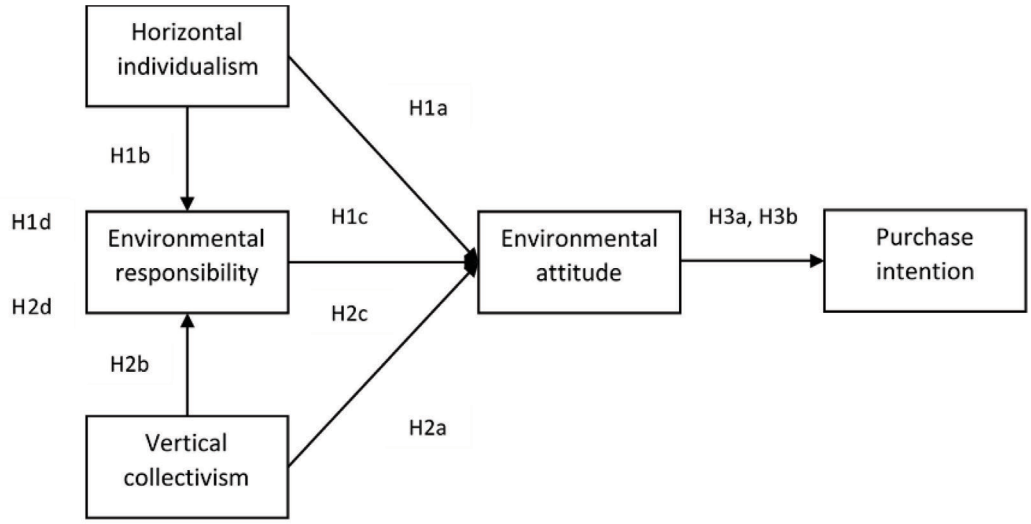

Fig. 3.0 Conceptual framework

4 Methodology

4.1 Measures and Sample

The questionnaire in this study has two parts. The first part contains the underlying independent and dependent variables, whereas the second part consists of demographic information about the respondents, such as age, gender, marital status, educational qualifications and income level. Scale items of the variables are adapted from earlier studies. For instance, scale items for "horizontal individualism" (HI) and "vertical collectivism" (VC) value orientations are taken from the study of Triandis and Gelfand (1998). Questions relating to the mediating variable "environmental responsibility" are taken from the study of Lee (2009). Scale items for the consumers' "environmental attitudes" variable, are taken from the study of Mostafa (2007), and scale items of "purchase intention" are taken from the study of Paul, Modi and Patel (2016). All scale items were measured using a Likert scale of "strongly disagree" (1) to "strongly agree" (5).

4.2 Data Collection Procedure

A non-probability convenience sampling technique was used to collect the data. Respondents were contacted in public places such as parks, malls, city centres and educational institutes. A total number of 172 (n = 172) questionnaires were obtained from people living in the cities of Rawalpindi and Islamabad in Pakistan. In Finland, a total of 193 (n = 193) responses were obtained from residents of the cities of Helsinki and Vaasa.

4.3 Data Analysis

The collected data were examined using the Statistical Package for the Social Sciences (SPSS 20.0). Data were scrutinized for missing and unclear values and these were removed. Further, to analyse the data and to check the hypothesized relationships and fitness of the model, we used the structural equation modelling (SEM) technique, using the partial least squares (PLS) SmartPLS (v. 3.2.6) software application (Hair et al., 2006). PLS is a prediction-oriented SEM-based software package that works conveniently with smaller data sets (Henseler, Ringle & Sinkovics, 2009).

5 Results and Findings

5.1 Sample Characteristics

In Pakistan, the majority of the respondents were aged between 26 and 40 years (n = 93, 54.1%) but in the Finnish sample they were between 21 and 35 years (n = 97, 50.3%). There were more female respondents in the Finnish sample than males (n = 143, 74.1%). The number of unmarried respondents was almost the same in both samples (Pakistan, 105, 61.1%, Finland, 106, 54.92%). In the Pakistani sample there were 60 (n = 60, 34.88%) bachelor's degree holders, but in the Finnish sample this number was 77 (n = 77, 39.90%). The income level of respondents in Pakistan was between Pakistani rupees (PKR) 10,000-30,000 (n = 122, 70.93%) and in Finland the income level was between € 501-2,499 (n = 126, 65.28%).

5.2 Intercorrelation, Validity and Reliability

For interrelationships between the variables, we checked the correlation. To evaluate the convergent validity, we computed the average variance extracted (AVE), and for reliability of the measures we computed the composite reliability (CR). Moreover, we found adequate discriminant validity using the square root of AVEs exceeding the correlation coefficients between pairs of corresponding constructs (Fornell & Larcker, 1981) (See Table 1.0 and Table 2.0).

Table 1.0 Discriminant validity and correlation (Finland)

Variables	**HI**	**ER**	**EA**	**PI**	***CR***	***AVE***
HI	***(0.88)***				0.89	0.78
ER	.425	***(0.93)***			0.85	0.86
EA	.420	.640	***(0.90)***		0.85	0.81
PI	.641	.714	.389	***(0.92)***	0.89	0.85

Table 2.0 Discriminant validity and correlation (Pakistan)

Variables	VC	ER	EA	PI	*CR*	*AVE*
VC	***(0.86)***				0.83	0.74
ER	.428	***(0.87)***			0.80	0.75
EA	.436	.555	***(0.88)***		0.82	0.78
PI	.333	.512	.440	***(0.89)***	0.84	0.80

Notes: Values of square root of AVEs are shown diagonally in parentheses.

5.2 Structural Equation Modelling (SEM) Analysis

5.2.1 Measurement Model

The loadings of the measurement model for the four latent variables show adequate convergent validity, indicating acceptable internal consistency and validity above the recommended value of 0.50 (Fornell & Larcker, 1981) (see Fig. 4.0 and Fig. 5.0).

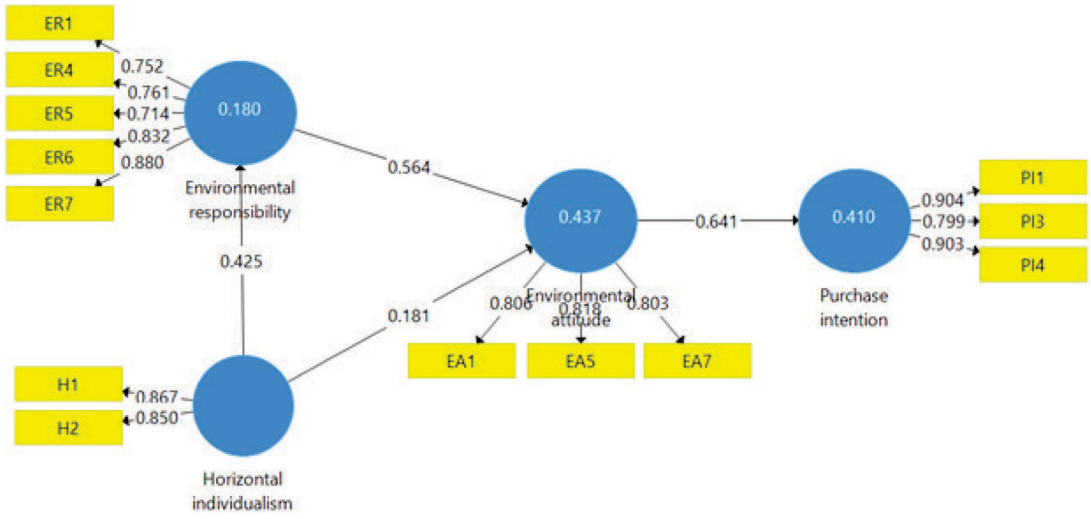

Fig 4.0 Measurement model (Finland)

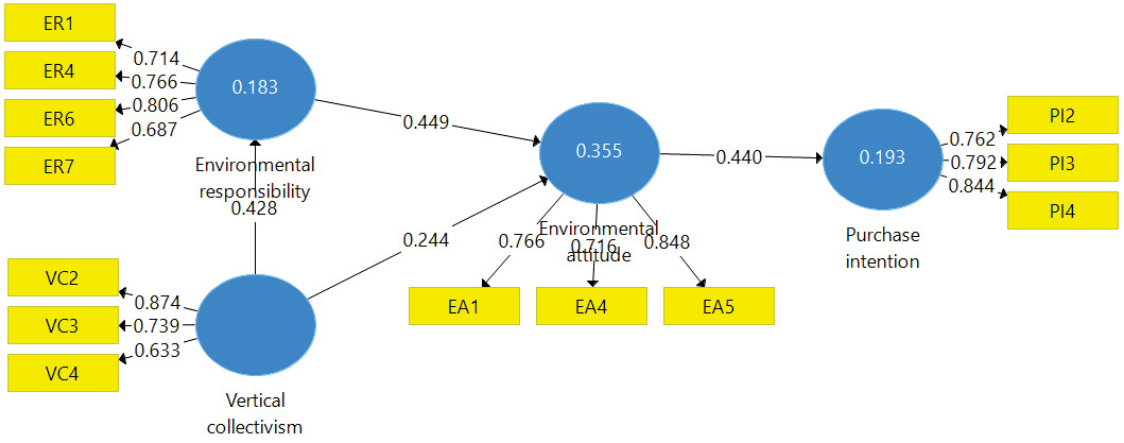

Fig 5.0 Measurement model (Pakistan)

5.2.2 Structural Model and Hypotheses Results

To assess the hypothesized relationships of the constructs, a structural model was used. A coefficient of determination R^2 was calculated as the first step of the structural model. This shows the amount of variance in a dependent variable via an independent variable using path coefficients and their corresponding significance scores. In the model for Finland, the R^2 value for ER is 18%, for EA is 44% and for PI is 41%. In the model for Pakistan, the R^2 value for ER is 18%, for EA is 36% and for PI is 19%, demonstrating considerable significance for the interpretation of the variance (Chin, 1998). In the next step, to test the prediction relevance of the models, the Q^2 value, which is a cross-validated redundancy measure, was calculated using the blindfolding command. The resulting values of Q^2 for the Finland data model are 10% for ER, 26% for EA and 28% for PI. The Q^2 results for the Pakistan data model are 9% for ER, 19% for EA and 11% for PI. All the Q^2 values in the two models demonstrate that the observed values are well reconstructed and that the model has predictive relevance (Henseler, Ringle and Sinkovics, 2009). Subsequently, to determine the strengths of the direct and indirect hypothesized effects between the variables of the model using path coefficients and t-values, a bootstrapping method for sampling tests was run,

based on 1,000 bootstraps in PLS (Roldan & Sanchez-Franco, 2012; Ringle, Wende & Becker, 2015; Cepeda, Nitzl & Roldán, 2017).

In Finland, we reject H1a due to the insignificant effect of HI on EA ($\beta = 0.226$, $p > 0.05$). However, the HI effect on ER ($\beta = 0.568$, $p < 0.05$) is positive, and therefore we accept H1b. H1c is also accepted, as ER positively influences EA ($\beta = 0.603$, $p < 0.05$). The influence of EA on PI in the Finnish sample is also positive ($\beta = 0.226$, $p < 0.05$), and therefore we accept H3a. Regarding the hypothesis results in Pakistan, VC → EA is not significant ($\beta = 0.226$, $p > 0.05$), and therefore H2a is rejected, but the VC → ER path is significant ($\beta = 0.612$, $p < 0.05$), and therefore we accept H2b. We also accept the hypothesis H2c, since ER → EA is significant and positive ($\beta = 0.603$, $p < 0.05$). The effect of EA on PI in Pakistan was also found to be positive and significant, and therefore we accept H3b ($\beta = 0.611$, $p < 0.05$). Regarding the mediating factor analysis, we accept H1d and H2d: the resulting values of specific indirect effects show that ER plays the role of a full mediator between cultural variables HI ($\beta = 0.611$, $p < 0.05$) and VC ($\beta = 0.363$, $p < 0.05$) (see Table 3.0 and Fig. 6.0).

Table 3.0 Hypotheses result

Hypotheses	**Hypothesized path**	**B**	**t-value**	**P-value**	**Label**
Direct effects					
		Finland			
H1a	HI → EA	0.231	1.934	0.06	Rejected
H1b	HI → ER	0.568*	7.519	0.00	Accepted
H1c	ER → EA	0.665*	6.387	0.00	Accepted
H3a	EA → PI	0.794*	16.985	0.00	Accepted

Hypotheses	Hypothesized path	B	t-value	P-value	Label
		Pakistan			
H2a	VC → EA	0.282	1.807	0.07	Rejected
H2b	VC→ ER	0.619*	5.533	0.00	Accepted
H2c	ER → EA	0.587*	3.874	0.00	Accepted
H3b	EA → PI	0.610*	6.813	0.00	Accepted
Indirect effects					
H1d	HI → ER → EA	0.378*	5.382	0.00	Accepted
H2d	VC → ER → EA	0.363*	3.139	0.02	Accepted

$p < 0.05$

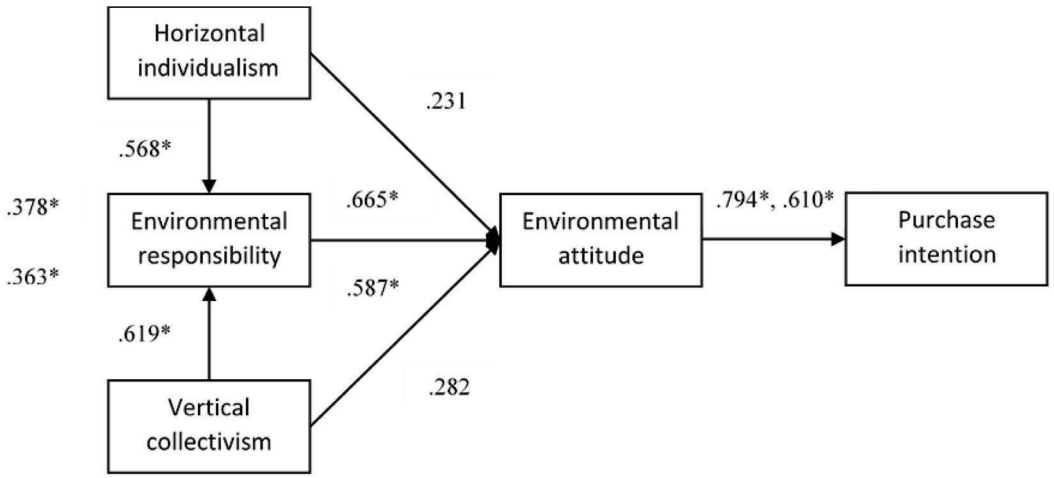

Fig 6.0 Hypotheses results

6 Discussion

This study capitalized on the long-standing history of cultural orientations in environmental behaviour research. Accordingly, an attempt has been made to quantitatively examine the horizontal individualism (Finland) and vertical collectivism (Pakistan) facets of horizontal vs vertical and collectivist/group cultural orientations as antecedents of consumers' environmental attitudes and purchase intentions.

6.1 Theoretical and Practical Implications

Our primary aim in this study was to examine cross-cultural HI vs VC differences in the environmental behaviour of consumers in two countries, one of which is developed (Finland) and the other of which is developing (Pakistan). Surprisingly, the results of this study indicate that the influence of HI and VC on EA is insignificant. This is partially consistent with Cho et al. (2013), who in their study found a positive impact of HI on EA but found that the influence of VC on EA was negative. We contend that HI individuals may personally find it difficult to feel that pro-environmental behaviour can help them to be unique and self-reliant while protecting the environment. On the other hand, VC individuals may believe that it is difficult for them to make a difference to the environment, e.g., for their families, while sustaining inequality and improving their status in society. Although consuming environmentally friendly products is good for present and future generations, and many other benefits are associated with such products for the self as well as for others and the environment, HI vs VC consumers may have the opinion that consuming these products may not be beneficial regarding their cultural motives or they may find it inconvenient to change learned consumption patterns and habits (Liobikiene & Juknys, 2016). However, when environmental responsibility was introduced, we found a positive influence of HI and VC on ER in both countries. The positive result here shows that ER influences consumers'

attitudes towards the environment (Miniero et al., 2014). This result represents the important theoretical contribution of this study. It suggests that consumers in both cultures have a strong inclination towards protecting the environment and therefore indirectly show environmentally responsible behaviour (Paco & Rodrigues, 2016; Shavitt et al., 2006). Both HI and VC consumers are passionately involved in the issues that relate to environmental protection, and ultimately, they show positive environmental attitudes (Eden, 1993). We also found that EA has a positive impact on PI in the two cultures (Morren & Grinstein, 2016; Taufique & Vaithianathan, 2018), which is consistent with earlier research. This result indicates that consumers are ready to change their purchase patterns for the sake of the environment (Kinnear et al., 1974; Follows & Jober, 2000). Overall, we infer that consumers in HI and VC cultures have positive environmental attitudes and their purchase intentions are heavily influenced by their feeling of responsibility towards the environment, which is in the best interests of environmental protection.

The findings of this study provide product strategies, consumer segments and advertising and promotion implications for manufacturers, producers and marketers of green and environmentally friendly products in both countries. Because environmental responsibility facilitates cultural values in consumers' attitudes and consequently in their purchase intentions, marketers should use specific advertising and promotion messages to influence consumers' attitudes and purchase intentions. For example, as a high power-distance society, the characteristics of the VC-Pakistan cultural consumer segment include displaying social status, and therefore being eco-conscious could be a new status symbol for such consumers. Marketers and advertisers should insert such messages in the content of print and media advertisements to appeal to those who wish to enhance their status, so as to foster the purchase and consumption of environmentally friendly products. In addition, marketers should not try to sway consumers only with the economic and status benefits

of environmentally friendly products but should also highlight the importance of buying such products for the benefit of current and future generations, so as to foster consumers' attitudes and purchase intentions towards such products. In this regard, marketing can attempt to use cause-related, socially responsible, environmentally friendly and mindful consumption messages in green advertising. Regarding HI-Finland, marketers need to embed HI-congruent content, such as using appeals to uniqueness and self-reliance in their advertisements and promotions, to attract consumers. The appeal may lie in messages such as appearing unique in one's surroundings or representing self-reliance in protecting the environment when buying and consuming environmentally friendly products. Moreover, marketers can penetrate HI cultures via environmentally and socially responsible marketing strategies more easily than when introducing products via signals about the benefits of the product itself.

6.2 Limitations and Future Research Recommendations

Although considerable conceptual and methodological effort and attention has been expended on examining the cross-cultural HI and VC differences in consumers' environmental behaviour, this study still cannot claim to be entirely free from limitations. There are several limitations that provide opportunities for future research on the topic. Firstly, the insignificant influence of HI vs VC on EA generates an opportunity for future research to test this with larger sample size, employing different data collection techniques and methods of analysis with more than one product category, and a multi-country or cross-country market context, e.g., Western vs non-Western countries, to compare the results for similarities and differences. Secondly, the roles of gender, income and education of consumers may be found to moderate the results in future research. Thirdly, due to technological and informational development, cultures are changing, and ultimately, the trends in purchasing and consumption are also changing. In future studies, data

should be collected from rural as well as urban areas, to determine whether the culture-level difference between HI and VC still exists or whether is different with respect to the demographics and geographical locations of consumers in the same and in different countries. Lastly, future studies on advertising could use horizontal and vertical IND/COL culturally congruent appeals to examine consumers' attitudes and intention to purchase green or environmentally friendly products in the countries structured around these cultural groups.

References

1. Ajzen, I. (1991). The theory of planned behavior, *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
2. Albayrak, T., Aksoy, S. and Caber, M. (2013). The effect of environmental concern and skepticism on green purchase behavior", *Marketing Intelligence & Planning*, *31*(1), 27-39.
3. Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British journal of social psychology*, *40*(4), 471-499.
4. Birch, D., Memery, J., & Kanakaratne, M. D. S. (2018). The mindful consumer: Balancing egoistic and altruistic motivations to purchase local food. *Journal of Retailing and Consumer Services*, *40*, 221-228.
5. Cepeda, G., Nitzl, C., and Roldán, J. L. (2017). Mediation Analyses in Partial Least Squares Structural Equation Modeling: Guidelines and Empirical Examples in Partial Least Squares Path Modeling: Basic Concepts, Methodological Issues and Applications, H. Latan and R. Noonan (eds.), Springer: Cham, 173-195.
6. Chen, F. F., & West, S. G. (2008). Measuring individualism and collectivism: The importance of considering differential components, reference groups, and measurement invariance. *Journal of Research in Personality*, *42*(2), 259-294.
7. Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In: G. A. Marcoulides (Ed.), Modern Methods for Business Research (295–358). Mahwah, NJ: Lawrence Erlbaum Associates.

8. Cho, Y.N., Thyroff, A., Rapert, M.I., Park, S.Y. & Lee, H.J., (2013). To be or not to be green: Exploring individualism and collectivism as antecedents of environmental behaviour. *Journal of Business Research*, *66*(8), 1052-1059.

9. Cornelissen, G., Pandelaere, M., Warlop, L., & Dewitte, S. (2008). Positive cueing: Promoting sustainable consumer behaviour by cueing common environmental behaviours as environmental. *International Journal of Research in Marketing*, *25*(1), 46-55.

10. da Costa, J.P., Santos, P.S., Duarte, A.C. & Rocha-Santos, T., 2016. (Nano) plastics in the environment–sources, fates and effects. *Science of the Total Environment*, *566*, 15-26.

11. De Mooij, M. & Hofstede, G. (2011). Cross-cultural consumer behaviour: A review of research findings. *Journal of International Consumer Marketing*, *23*(3/4), 181-192.

12. Eden, S.E. (1993) Individual environmental responsibility and its role in public environmentalism. Environment and Planning, *25*, 1743-1758.

13. First, I. & Brozina, S., (2009). Cultural influences on motives for organic food consumption. *EuroMed Journal of Business*, *4*(2), 185-199.

14. Follows, Scott B. & David Jobber (2000). Environmentally responsible purchase behavior: a test of a consumer model, *European Journal of Marketing*, *34*(5/6), 723-46.

15. Fornell, C. & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research,* 18(1), 39-50.

16. Gifford, R. & Nilsson, A., (2014). Personal and social factors that influence pro-environmental concern and behaviour: A review. *International Journal of Psychology*, *49*(3), 141-157.

17. Gupta, S. & Ogden, D.T., (2009). To buy or not to buy? A social dilemma perspective on green buying. *Journal of Consumer Marketing*, *26*(6), 376-391.

18. Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006), "Multivariate data analysis (Vol. 6), Upper Saddle River, NJ: Pearson Prentice Hall.

19. Han, T. I., & Stoel, L. (2017). Explaining Socially Responsible Consumer Behavior: A Meta-Analytic Review of Theory of Planned Behavior. *Journal of International Consumer Marketing*, *29*(2), 91-103.

20. Henseler, J. Ringle, C, & M. Sinkovics, R. (2009). The Use of Partial Least Squares Path Modeling, in: Advances in International Marketing, *20*, 303-305.

21. Hofstede, G., (1980). Motivation, leadership, and organization: do American theories apply abroad? *Organizational dynamics*, *9*(1), pp.42-63.

22. Howell, R.A., (2013). It's not (just) "the environment, stupid!" Values, motivations, and routes to engagement of people adopting lower-carbon lifestyles. *Global Environmental Change*, *23*(1), 281-290

23. Imam, F., (2013). Individualism-Collectivism as Related to Voting Behavior of Youth and Adults in Pakistan. *New Horizons*, *7*(2), p.1.

24. Khatri, N., Tsang, E. W., & Begley, T. M. (2006). Cronyism: A cross-cultural analysis. *Journal of International Business Studies*, *37*(1), 61-75.

25. Kim, Y. & Choi, S.M., (2005). Antecedents of green purchase behaviour: An examination of collectivism, environmental concern, and PCE. *ACR North American Advances*.

26. Kinnear, T. C, Taylor, J. R., & Ahmed, S. A. (1974). Ecologically concerned consumers: Who are they? *Journal of Marketing, 38,* 20-24.

27. Knopman, D.S., Susman, M.M. & Landy, M.K. (1999). Civic environmentalism. *Environment*, *41*, 24–32.

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

29. 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.

30. Lee K. (2009). Gender differences in Hong Kong adolescent consumers' green purchasing behaviour. *Journal of Consumer Marketing*, *26*(2), 87-96.

31. Lee, J., & Cho, M. (2018/in press) New Insights into Socially Responsible Consumers: The Role of Personal Values. *International Journal of Consumer Studies*.

32. Liobikienė, G., & Juknys, R. (2016). The role of values, environmental risk perception, awareness of consequences, and willingness to assume responsibility for environmentally-friendly behaviour: the Lithuanian case. *Journal of Cleaner Production*, *112*, 3413-3422.

33. McCarty, J.A. & Shrum, L. J., (2001). The influence of individualism, collectivism, and locus of control on environmental beliefs and behavior. *Journal of Public Policy & Marketing*, *20*(1), 93-104.

34. McKenzie-Mohr, D., Nemiroff, L. S., Beers, L., & Desmarais, S. (1995). Determinants of responsible environmental behavior. *Journal of Social Issues*, *51*(4), 139-156.

35. Milfont, T. L., & Duckitt, J. (2010). The environmental attitudes inventory: A valid and reliable measure to assess the structure of environmental attitudes. *Journal of Environmental Psychology*, *30*(1), 80-94.

36. Miniero, G., Codini, A., Bonera, M., Corvi, E. & Bertoli, G., (2014). Being green: from attitude to actual consumption. *International Journal of Consumer Studies*, *38*(5), 521-528.

37. Moisander, J., (2007). Motivational complexity of green consumerism. *International Journal of Consumer Studies*, *31*(4), 404-409.

38. Morren, M. & Grinstein, A., (2016). Explaining environmental behaviour across borders: A meta-analysis. *Journal of Environmental Psychology*, *47*, 91-106.

39. Morwitz, V. G., Steckel, J. H., & Gupta, A. (2007). When do purchase intentions predict sales? *International Journal of Forecasting*, *23*(3), 347–364.

40. Mostafa, M.M., (2007). Gender differences in Egyptian consumers' green purchase behaviour: the effects of environmental knowledge, concern and attitude. *International Journal of Consumer Studies*, *31*(3), 220-229.

41. Nair, S.R. & Little, V.J., (2016). Context, culture and green consumption: a new framework. *Journal of International Consumer Marketing*, *28*(3), 169-184.

42. Nguyen, T. N., Lobo, A., & Nguyen, B. K. (2017). Young consumers' green purchase behaviour in an emerging market. *Journal of Strategic Marketing,* 25, 1–18.

43. Oliver, J.D. and Lee, S.H., 2010. Hybrid car purchase intentions: a cross-cultural analysis. *Journal of Consumer Marketing*, *27*(2), 96-103.

44. Oreg, S. & Katz-Gerro, T., (2006). Predicting pro-environmental behaviour cross-nationally: Values, the theory of planned behaviour, and value-belief-norm theory. *Environment and Behavior*, *38*(4), pp.462-483.

45. Oyserman, D., Coon, H.M. & Kemmelmeier, M., (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, *128*(1), p.3.

46. Paco, A., & Gouveia Rodrigues, R. (2016). Environmental activism and consumers' perceived responsibility. *International Journal of Consumer Studies*, *40*(4), 466-474.

47. Park, H., Russell, C. & Lee, J., 2007. National culture and environmental sustainability: A cross-national analysis. *Journal of Economics and Finance*, *31*(1), 104-121.

48. Parker, A.G. & Grinter, R.E., (2014). Collectivistic health promotion tools: Accounting for the relationship between culture, food and nutrition. *International Journal of Human-Computer Studies*, *72*(2), 185-206.

49. Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of retailing and consumer services*, *29*, 123-134.

50. Pawaskar, U. S., Raut, R. D., & Gardas, B. B. (2018). Assessment of consumer behaviour towards environmental responsibility: A structural equations modeling approach. *Business Strategy and the Environment*, 27(4), 560-571.

51. Pisano, I., & Lubell, M. (2017). Environmental behaviour in cross-national perspective: A multilevel analysis of 30 countries. *Environment and Behaviour*, *49*(1), 31-58.

52. Quazi, A., Amran, A., & Nejati, M. (2016). Conceptualizing and measuring consumer social responsibility: a neglected aspect of consumer research, *International Journal of Consumer Studies*, 40(1), 48-56.

53. Ringle, C. M., Wende, S., & Becker, J.-M. (2015). SmartPLS 3.0, Boenningstedt: SmartPLS GmbH, http://www.smartpls.com.

54. Schlaile, M. P., Klein, K., & Böck, W. (2018). From bounded morality to consumer social responsibility: A transdisciplinary approach to socially responsible consumption and its obstacles. *Journal of Business Ethics*, *149*(3), 561-588.

55. Schultz, P. (2002). Environmental attitudes and behaviours across cultures. *Online Readings in Psychology and Culture*, *8*(1), 4.

56. Schwartz, S.H, (1968). Words, deeds, and the perception of consequences and responsibility in action situations, *Journal of Personality and Social Psychology*, 10 (3), pp. 232-242

57. Schwartz, S.H., (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In *Advances in Experimental Social Psychology*, 25, 1-65. Academic Press.

58. Shavitt, S. & Cho, H., (2016). Culture and consumer behaviour: the role of horizontal and vertical cultural factors. *Current Opinion in Psychology*, *8*, 149-154.

59. Shavitt, S., Johnson, T.P. & Zhang, J., (2011). Horizontal and vertical cultural differences in the content of advertising appeals. *Journal of International Consumer Marketing*, *23*(3-4), 297-310.

60. Shukla, P., Singh, J. & Banerjee, M., (2015). They are not all same: variations in Asian consumers' value perceptions of luxury brands. *Marketing Letters*, *26*(3), 265-278.

61. Singelis, T.M., Triandis, H.C., Bhawuk, D.P. & Gelfand, M.J., (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural research*, *29*(3), 240-275.

62. Soron, D., 2010. Sustainability, self-identity and the sociology of consumption. *Sustainable development*, *18*(3), 172-181.

63. Soyez, K., (2012). How national cultural values affect pro-environmental consumer behavior. *International Marketing Review*, *29*(6), 623-646.

64. Stern, P. C., & Dietz, T. (1994). The value basis of environmental concern. *Journal of social issues*, *50*(3), 65-84.

65. Taufique, K. M. R., & Vaithianathan, S. (2018). A fresh look at understanding Green consumer behavior among young urban Indian consumers through the lens of Theory of Planned Behavior. *Journal of Cleaner Production*, *183*, 46-55.

66. Torelli, C.J., Monga, A.B. & Kaikati, A.M., (2011). Doing poorly by doing good: Corporate social responsibility and brand concepts. *Journal of Consumer Research*, *38*(5), 948-963.

67. Triandis, H.C. & Gelfand, M.J., (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of personality and social psychology*, *74*(1), 118.

68. van Zomeren, M, (2014). Synthesizing individualistic and collectivistic perspectives on environmental and collective action through a relational perspective. *Theory & Psychology*, 24(6), 775-794.

69. Webb, D.J., Mohr, L.A. & Harris, K.E., (2008). A re-examination of socially responsible consumption and its measurement. *Journal of Business Research*, *61*(2), 91-98.

70. Verma, V.K., & Chandra, B., (2017). An Application of Theory of Planned Behaviour to predict young Indian consumers' green hotel visit intention. *Journal of Cleaner Production*. *172,* 1152-1162

71. Winterich, K.P. & Zhang, Y., 2014. Accepting inequality deters responsibility: How power distance decreases charitable behaviour. *Journal of Consumer Research*, *41*(2), 274-293.

72. Yaprak, A., 2008. Culture study in international marketing: a critical review and suggestions for future research. *International Marketing Review*, *25*(2), 215-229.

73. Yi-Cheon Yim, M., L. Sauer, P., Williams, J., Lee, S.J. & Macrury, I., (2014). Drivers of attitudes toward luxury brands: A cross-national investigation into the roles of interpersonal influence and brand consciousness. *International Marketing Review*, *31*(4), 363-389.

74. Zelezny, L. C., Chua, P. P., & Aldrich, C. (2000). New ways of thinking about environmentalism: Elaborating on gender differences in environmentalism. *Journal of Social Issues*, *56*(3), 443–457

75. Zhang, J. & Nelson, M.R. (2016). The effects of vertical individualism on status consumer orientations and behaviours. *Psychology & Marketing*, *33*(5), 318-330.