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# **Differences in Consumers' Green Consumption Mindsets and Behavior Across South Africa, South Korea and the United States Based upon Measures of Hofstede's Cultural Dimensions Theory**

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## **ABSTRACT**

Samples of 513 South African consumers, 292 South Korean consumers, and 938 consumers in the United States were drawn using identical, but appropriately translated, questionnaires. The data collection instrument addressed a number of psychographic considerations germane to consumption – and anti-consumption – decisions. Using the index scores from Hofstede's Theory of Cultural Dimensions as bases for differentiating among the three countries, meaningful differences related to issues germane to sustainability were identified. The three cultural dimensions used for comparative purposes were individualism (versus collectivism), indulgence (versus restraint) and long-term (versus short-term) orientation. Differences were documented for all eight of the sustainability-related phenomena under scrutiny. The results are significant for academicians who seek to teach and for practitioners who seek to operationalize differentiated marketing strategies on a global basis.

**Keywords:** Anti-consumption, Culture, Hofstede, Sustainability, Cross-national, Green

## **INTRODUCTION**

Sustainability is a key consideration today as we seek to leave a healthy environment for the global population in the years moving forward. As a consequence of this focus, there has been significant research directed towards green marketing – and green consumption. Alternatively stated, this focus has been bi-directional. What are companies doing to preserve the health of the global ecosystem; better yet, what are they doing to improve it? Then from the consumer perspective, what are individual consumers doing in order to help accomplish the same goals? Can the two entities collectively engage in actions that will help assure that the planet they leave behind will be the vibrant planet that they inherited? To understand the complexity of these

questions, consider the fact that sustainability has been characterized as a *wicked problem* (Fodness, 2015).

The focus of the current research is on consumers; how do they think and how do they behave in regard to sustainability? There is general agreement that there are green consumers who engage in green behavior designed to protect the environment. What they purchase, how they use/consume a product, and how they dispose of a durable product once it has outlived its usefulness are questions which green consumers take into account. But there are also brown consumers who pay little attention to the long-term consequences of their short-term decisions. So, significant research has sought to identify consumers who fall into different segments as it relates to sustainability. In fact, research has shown that there are varying levels of green and varying levels of brown consumers in the United States (Fullerton, *et al.*, 2021; Martenson, 2018; Leonidou and Skarmas, 2017; Byus and Dies, 2013). But it is possible that there are also meaningful differences from one country to another because of cultural underpinnings that create different mindsets which, in turn, result in different behavior in the marketplace. Using three of the six cultural dimensions delineated by Hofstede and Minkov (2010), the current project seeks to determine if attitudes and behaviors specific to sustainability vary across three countries that have significantly different cultural footprints: South Korea, South Africa and the United States.

## **LITERATURE REVIEW**

The literature review will focus on three key aspects germane to the current study. First, it will provide a broad overview of Hofstede's Cultural Dimensions Theory. Next it will provide specific insight into the cultural index scores as calculated by Hofstede and his associates for the three key cultural dimensions for the current study for each of the three countries under the microscope: South Africa, South Korea and the United States. Finally, it will delineate related literature on sustainability specific to the three countries under scrutiny in the current study that is relevant to the study at hand. As such, this component of the literature review will focus on cross-sectional research done in each country, on global indices that include up to 193 countries within their assessment of each nation's performance on a broad range of practices that foster (or inhibit) sustainability. Then it addresses research that has been based on personality and culture as factors that are related to attitudes and behavior that has sustainability as a goal. The culmination of the literature review will lead to the delineation of the research objectives sought to be achieved by the authors of this study.

### **Hofstede's Cultural Dimensions Theory**

Geert Hofstede's (1980) seminal study examined the cultural dynamics of a multitude of countries across the globe. In this initial effort, Hofstede identified four key constructs, which is to say cultural dimensions, which influence the attitudes held by and the behavior in which individuals within specific countries tend to respond. These four cultural dimensions were individualism (versus collectivism), power distance (high versus low), masculinity (versus femininity) and uncertainty avoidance (high versus low). Subsequent to that oft-cited study, Minkov and Hofstede (2011) identified two additional cultural constructs which influence attitudes and behavior; they are long-term (versus short-term) orientation and indulgence (versus

restraint). Hofstede (2015) later discussed all six dimensions when focusing on “the next challenge.”

A brief description of these six dynamics is in order. *Power distance* refers to the degree of inequality that exists – and is accepted – between people with and people without power. *Individualism* is predicated upon a preference for a loosely-knit social framework where individuals are expected to take care of only themselves and their immediate families. Conversely, at the opposite end of the spectrum, in a collectivist society, people are deemed to be loyal to the group to which they belong such that members of the group will defend their interests. In this scenario, individuals in the group take responsibility for each other's well-being. *Masculinity* refers to the distribution of roles between men and women. “In masculine societies, the roles of men and women overlap less, and men are expected to behave more assertively. (Hofstede and Minkov, 2010; Mind Tools, n.d.). Masculinity is seen to be the trait which emphasizes ambition, acquisition of wealth, and differentiated gender roles. Demonstrating your success and being strong and fast are seen as positive characteristics. Conversely, in feminine societies, there is considerable overlap between male and female roles, and modesty is perceived as a virtue. *Uncertainty avoidance* addresses how well people can cope with anxiety. In societies that score high for uncertainty avoidance, people attempt to make life as predictable and controllable as possible. *Long-term orientation* relates specifically to the time horizon people in a society possess. Countries with a long-term orientation tend to be pragmatic, modest, and thrifty. A country with a short-term orientation tends to focus on the importance of short-term gains and quick results whereas those with a long-term orientation focus on the future. The final cultural dimension, *indulgence*, is based upon the encouragement of relatively free gratification of people's own drives and emotions – such as enjoying life and having fun. In a society with a low indulgence score (thus more oriented towards restraint), there is more emphasis on suppressing gratification and more regulation of people's conduct and behavior; thus, there are stricter social norms (Hofstede and Minkov, 2010; Mind Tools, n.d.).

Since the current study is looking at behavior and attitudes regarding sustainability, three of these six dimensions were deemed to be more likely to influence the dependent variable set than were the other three. Thus, the current study will focus on individualism versus collectivism, indulgence versus restraint, and a long-term orientation versus a short-term orientation. The rationale for selecting these three dimensions was as follows. First, since sustainability is predicated upon a green future, behavior that protects the environment for future inhabitants of a more inter-connected world would be deemed essential. That focus is consistent with a long-term orientation as well as a collectivist mindset that focuses more on the welfare of society rather than individual benefits that accrue to the consumer as a result of specific actions in the marketplace. Restraint, as opposed to indulgence, would imply that consumers in those countries behave in ways that will benefit the masses rather than selfishly seeking self-gratification.

### **Index Scores for South Africa, South Korea and the United States**

The index scores for the three countries on each cultural dimension were drawn from a report available on <http://www.ClearlyCultural.com> and <https://www.hofstede-insight.com>. The range of potential values for these metrics falls between zero and 100. There are several distinct

differences among the three countries. For example, regarding individualism, South Korea's index is 18 (highly collectivist) whereas that same metric for the United States is 91 thus reflecting a highly individualistic culture. There are also several similarities. On the dimension of masculinity, the value for the United States is 62 whereas the metric for South Africa is 63. So, both countries gravitate towards a somewhat masculine mindset with virtually no difference between them; however, these index numbers are considerably higher than is South Korea's value of 39 thus reflecting more of a feminist cultural mindset. The index values for the three countries for all six cultural dimensions are presented in Table 1.

**Table 1. Index Values for the 6 Cultural Dimensions Delineated by Minkov and Hofstede**

<b>Country</b>	<b>PDI</b>	<b>IDV</b>	<b>MAS</b>	<b>UAI</b>	<b>LTO</b>	<b>IVR</b>
South Africa	49	65	63	49	34	63
South Korea	60	18	39	85	75	29
United States	40	91	62	46	29	68

PDI=Power Distance; IDV=Individualism; MAS=Masculinity; UAI=Uncertainty Avoidance; LTO=Long-Term Orientation; IVR=Indulgence

### **Previous Research Regarding Differences across South Africa, South Korea and the United States and the Role of Culture in Research on Sustainability**

This segment of the Literature Review will commence with an overview of several studies that examined sustainability issues in South Africa. For starters, South Africans continue to emit excessive amounts of greenhouse pollution; however, young South Africans between the ages of 15 and 24 have become more vocal in their efforts to change their compatriots' minds about protecting the environment (Bright, 2021). The South African Department of Forestry, Fisheries and the Environment have issued their own National Framework for Sustainable Development. It states that "South Africa aspires to be a sustainable, economically prosperous and self-reliant nation state that safeguards its democracy by meeting the fundamental human needs of its people, by managing its limited ecological resources responsibly for current and future generations, and by advancing efficient and effective integrated planning and governance through national, regional and global collaboration" (Environment & Tourism, 2008). A more recent survey of South African consumers concluded that "South African consumers have expressed a growing willingness to pay a premium for ..... sustainability over the last two years" while noting that "sustainable packaging is already relatively well-established in South Africa, for example, with returnable glass bottles being more common than in many other countries." (Hattingh and Ramiakan, 2022, p. 1). Perhaps it is this emphasis which led to a recent study of the retail sector of South Africa concluding that a retailer's green image along with its environmental performance helps in its quest to attain a competitive advantage (Chinomona and Bikissa-Macongue, 2021). More recently, we have seen a "waste-to-soil" composting initiative in South Africa (Averda, 2021). But, despite such available opportunities for South Africans, it has been reported that the country's climate plan completely ignores waste reduction (Bega, 2021).

Next up under the microscope is South Korea. In South Korea, it has been proposed that a multifaceted education and training program be implemented in an effort to introduce more sustainability-based initiatives in commerce and to establish a knowledge-based institution to

promote sustainability to those in the South Korean community (Farhart, 2021). In this regard, it has been reported that “South Korea has become a leader in the development of the latest technologies, microelectronics, biotechnology and optics, aimed at protecting the environment (Sutbayeva, *et al.*, 2021 p. 691). At the same time, Korea is shifting away from fossil fuels and nuclear power and towards renewable energy resources. The country is also witnessing a transformation in its industries with a transition towards decarbonization, digitization, and automation. Furthermore, South Korea is moving towards a sustainable circular economy and achieving greater resource security (Lee and Cha, 2020). The country’s push towards sustainability has also seen an uptick in urban farming with residents signing up for farming lessons as well as RFID-equipped garbage cans that measure waste and bill residents accordingly (Cho, 2019). While some countries such as the United States have taken steps to encourage recycling and composting, South Korea has essentially required its citizens to compost organic products as a way of enhancing sustainability. It is estimated that when the law took effect in 2006, South Korea composted about 2% of its food waste; that number is now at 95%, and it is discarded in mandated biodegradable bags. (Ho, 2021; Broom, 2019). So, in regard to the composting of organic waste, South Koreans were at the forefront followed by the Americans with the South Africans the latest to encourage, or as in the case of South Korea, require this form of green behavior.

The third country under scrutiny is the United States. A major concern in the United States is the dependence on fossil fuels which leads to global warming, thereby inflicting harm upon the environment. The resultant damage adversely impacts any goal of sustainability, be it national or global (Zaharia and Zaharia, 2014). Recycling and composting requirements similar to those enacted in South Korea have begun to emerge in the United States, but at local and state levels rather than a national level (Rainey, 2021). The mantra being articulated for a new law in California that mandates composting of food waste is that “We are fighting global warming” (Woodrow. 2021). In the United States, there is the politically-charged “Green New Deal” which, if passed, would initiate a bevy of new mandates primarily aimed at carbon footprints, emissions, and global warming (Gavin and Healy, 2020). So, while it is on their minds, much of the onus is on Americans to voluntarily make these changes to the daily routines.

### **The Three Countries’ Performance According to Independent Global Assessments**

All 193 countries that are members of the United Nations are rated based upon their ability to achieve 17 sustainable development goals (SDGs) that foster sustainability. The most recent report places South Korea 28<sup>th</sup> with an index score of 78.59; with a score of 76.01, the United States is slightly behind the South Koreans at 32<sup>nd</sup>; and the South Africans are in 107<sup>th</sup> place on the list with a score of 63.74 (Sachs, *et al.*, 2021). Similarly, Solability provides a metric intended to represent a country’s Sustainable Competitiveness Index. Its metrics for 2021 place South Korea at the head of the three countries under scrutiny in the current study at 21<sup>st</sup> with an index value of 53.9. Again, slightly behind the South Koreans is the United States; its index of 52.0 places it in 30<sup>th</sup> position on the list of 180 countries. Finally, in 147<sup>th</sup> place with an index value of 39.3 is South Africa (Solability, 2022). A final index – though there are several more – that is examined for this study is Yale University’s Environmental Performance Index (EPI). Its most recent study enumerates a slightly different sequence for the three countries. With a score

of 69.3, the United States is 24<sup>th</sup> on the list. Slightly behind the USA in 28<sup>th</sup> place is South Korea with a score of 66.5. Far behind these two countries is South Africa whose score of 43.1 places them in the 95<sup>th</sup> position. All three countries have seen an upward trend in their index over the past 10 years, but South Africa has made the greatest strides over that time (EPI, 2020).

### **Have We Assessed the Role of Culture in Previous Studies on Sustainability?**

A study of young consumers in South Africa examined the relationship between personality characteristics and the intent to engage in green purchasing behavior; it found four connections between personality traits (*openness to experience, conscientiousness, extraversion, agreeableness*) and those decisions (Fatoki, 2020). Though these personality traits are different from the three under scrutiny in the current study, the implication is that there is a link between *personality* – thus culture – and green behavior. From a similar standpoint in the United States, it was determined that there is a relationship between one’s tendency to engage in green advocacy and their tendency to engage in green consumption behavior (van Tonder, *et al.*, 2020). Thus, there is presumed to be a link between personality and sustainability. Another study of American consumers looked at the distinction between *materialism and altruism* as it related to environmentally-friendly consumption. This assessment is somewhat analogous to the use of *indulgence versus restraint* as a determinant of sustainability-based behavior. The authors of that study found that “Materialism tends to have a positive relationship with environmental irresponsibility” (Costa, Ramos, Vils, and Cunha, 2021, p. 585). Along these same cultural lines, we have seen research that focuses on the role that *mindful consumption, caring for nature and caring for the community* play in an effort to encourage sustainability (Sheth, Sethia and Srinivas, 2011). One comparative study that included the United States and South Korea did focus on *Hofstede’s cultural dimensions*. It implied that these dimensions could play a role in the task of resolving problems related to sustainability (Rodriguez and Brown, 2014). A study by Minton, *et al.* (2012, p. 80) likewise invoked Hofstede’s cultural character when stating that “South Korea, a *collectivist* country, exhibited motivation patterns for sustainable behaviors that differed from those in the United States and Germany, which are *individualistic* cultures.” A cross-sectional study in the United States likewise surmised that “*cultural values influence sustainable consumption*, and then sustainable consumption positively influences consumer well-being” (Minton, *et al.*, 2022, p. 167).

### **Overview of the Literature**

There is a modicum of previous research that has approached sustainability from the perspective of Hofstede’s cultural dimensions. In regard to so-called green behavior, there is a particular shortcoming when looking at previous research on South Korea and South Africa. In fact, it has been stated that in regard to sustainability and green consumption, “there is a noticeable dearth of knowledge pertaining to consumers in South Africa (Govender and Govender, 2016). The preponderance of the evidence found in the literature indicates that South Korea and the United States both rank above South Africa in terms of sustainability. And though it is not unanimous, South Korea tends to rank slightly higher than the United States on this important construct. While there are studies that looked at each country, there were none, other than those that addressed a multitude of countries and various indices, that incorporated the three countries

under scrutiny in the current study. This study will begin to address this deficiency. To do so, it is essential to lay out the key objectives sought to be achieved in this study.

## RESEARCH OBJECTIVES

While there was an overarching objective for this study, there were several secondary objectives. Foremost was the desire to determine whether Hofstede's measures of cultural dimensions were related to a country's tendencies to behave – or to not behave – in a manner conducive to sustainability. More specifically, the objective was to determine the nature of the relationship between sustainability and three fundamental cultural traits as delineated by Minkov and Hofstede (2011). This primary objective led to three specific research hypotheses.

**H1** – Sustainability is inversely related to a country's score on individualism,

**H2** – Sustainability is positively related to a country's score on long-term orientation, and

**H3** – Sustainability is inversely related to a country's score on indulgence.

Upon the assessment of these three hypotheses, the secondary objectives were founded upon the desire to determine which of the eight dependent variables were more closely aligned with the three independent variables as delineated in the three research hypotheses.

## METHODOLOGY

A questionnaire was developed for a large multi-national research project on anti-consumption attitudes and behavior. Sustainability was one of 12 potential reasons for engaging in anti-consumption behavior (such as participating in boycotts and posting negative online reviews) that were being investigated. Regarding sustainability, respondents were asked to indicate how appropriate it is for consumers to consider a marketer's record on sustainability as a rationale for their decision to engage in anti-consumption behavior. They were then asked to indicate how frequently they personally used sustainability as a reason for excluding a marketer that is engaging in unacceptable behavior in regard to sustainability from their list of acceptable brands that they would purchase – in essence, engaging in a personal boycott. The survey then sought their input on 13 separate psychographic dimensions. Of these thirteen, six were deemed likely to be associated with the issue of sustainability. These six scales were the perceived benefits of *green consumption*, *personal anti-consumption behavior*, perception of breaches of *consumer ethics*, engaging in *consumer coaching* designed to persuade others from using products deemed detrimental to the environment, *helping* consumers make better purchase decisions, and the extent to which one participates as an *advocate* of green marketing and consumption. In summary, there are eight dependent variables under scrutiny that will be investigated so as to determine the extent to which the overarching cultural mindset of the citizens of the three countries contributes to differences in regard to how they perceive and how they engage in anti-consumption behavior pursuant to a desire to foster sustainability. These eight dependent variables are:

- Appropriateness of using sustainability as basis to engage in anti-consumption behavior,
- Frequency of personally using sustainability as basis for a personal boycott,
- Scale measuring attitudes regarding perceived benefits of green consumption behavior,
- Scale measuring personal broad-based anti-consumption behavior,
- Scale measuring perception of breaches of ethical conduct by consumers,
- Scale measuring consumer coaching behavior that encourages sustainability,



- Scale that reflects help provided to induce sustainable consumer action, and
- Scale measuring advocacy that represents individual's overt action to influence behavior.

Though some of these scales will be highly correlated with each other, each has been used in multiple studies designed to evaluate consumer actions as they relate to ethical consumption. And in today's world, it is perhaps sustainability that is of the most paramount interest among consumers, consumer advocates, and watchdog groups that monitor questionable behavior on the part of both sides of the buyer-seller dyad.

The original questionnaire was pretested using a sample of 175 students at two universities in the United States. Minor adjustments to wording were made, and three quality control questions were inserted at various points in the questionnaire. The survey was then placed online and beta-tested by the U.S. research team and the project manager for procedural issues. Satisfied that the survey was devoid of any problems, it was then provided to members of the research team in South Africa, South Korea and the United States. It was translated into Korean. The English version that was developed for the United States was used in South Africa; however, several changes to the spelling, wording and categorical responses for the demographic questions were required for the South African version of the questionnaire.

Data were collected in *South Africa* using a Web-based protocol maintained by the Consulta Research Agency. Invitations were sent to select members of their consumer panel which the agency refers to as ConsultaPanel. Upon clicking the link for the survey, two questions were used to screen the prospects to ensure that they were members of the target population. Those who satisfied the screening process were then directed to the online questionnaire. Their responses were directly entered into the South African database. The *South Korean* data were collected using an Internet-based approach. The questionnaire was loaded onto Korea's most popular social network service, KakaoTalk. A team of five researchers was employed to recruit respondents using a judgment sample in an effort to assure that the prospective respondent met established demographic requirements. The initial wave of respondents was determined to be too heavily composed of younger respondents. To address this deficiency, the second wave of data collection focused on an effort to collect data from older respondents. It used one researcher to solicit feedback from older respondents, again using the researcher's judgement in the selection process. Both waves of the South Korean data collection process were completed entirely online. In the *United States*, invitations to participate in the study were sent via email to select prospects from a consumer panel maintained by Dynata, a commercial supplier of research services. Prospects who opted to accept the invitation clicked on a link that directed them to the questionnaire. There was no backdoor to the survey; participation was based on an invitation and a direct action on the part of the invited prospect. The second and third waves of invitations were directed more towards the demographic groups that were underrepresented after day two (younger and less educated). There were also four quality control checks that identified inattentive respondents. Because they likely adversely impacted the quality of the data; these inattentive respondents were dropped from the final database. The data were directly recorded in the American database upon completion of the survey by each respondent.

Upon completion of the data collection process in each of the three countries, the data were combined into a single database in order to facilitate a series of comparative assessments. Because there are some single-item variables as well as some three and four-item scales, it was decided to take the average score for the individual items in each scale in order to standardize the comparison process. As a result of this procedure, each scale in the analyses was able to be compared on a singular basis. The mean score for all eight dependent variables fell between 1.0 and 6.0. Furthermore, reverse scoring on two of the variables placed all eight in an identical condition whereby lower mean scores were associated with higher levels of sustainability-based behavior and/or attitudes. The mean scores for the eight dependent variables were compared across the three countries. Countries were placed in ordinal arrays based on Minkov and Hofstede's (2011) reported metrics for the three cultural indices under scrutiny which served as the three independent variables. These three cultural dimensions were selected solely on the basis that it was anticipated that they would likely be associated with the eight sustainability-based dependent variables. The ordinal ranking for each dimension was then compared to the ordinal rankings for each of the eight dependent variables. The results were then interpreted so as to identify which of the three cultural dimensions under scrutiny could be presumed to be associated with efforts to foster sustainability by the citizenry of each country.

## RESULTS

The net usable sample comprised 1,743 respondents who had provided a response each of the 85 questions on their respective survey. Specifically, there were 292 residents of South Korea, 513 South African residents, and 938 American residents who qualified; all were at least 18 years of age. The aggregate sample, prior to cleansing the database was almost 2,500; however, there were multiple quality control checks that allowed for the identification of inattentive respondents who were deleted from the database. The quality control checks were a uniform identifier, an instructional manipulation check, a ReCAPTCHA question, and a time check (identifying speeders). For example, 514 (35.47%) of the respondents in the United States (from an original sample of 1,452) failed at least one quality control check and were dropped from the database. This cleansing process reduced the net usable sample of American respondents to 938. Similar outcomes were present in the preliminary South Korean and South African samples. Thus, the cleansing process that led to the deletion of almost 750 inattentive respondents was deemed to have resulted in more accurate statistics for the research team to use in their analyses. With concerns about the attentiveness and the representativeness of the three subsamples now somewhat lessened, attention shifts to the results which compared the statistics associated with the three countries with the data provided on [www.hofstede-index.com](http://www.hofstede-index.com).

The initial assessment focused on the three countries' index values for the dimension that represents the cultural underpinning that addresses a country's *individualistic* mindset. The opposite end of that continuum is a collectivist mindset. Higher values represent individualism whereas lower index values represent a culture that leans more towards collectivism. The values for the three countries as noted earlier in Table 1, per Hofstede's assessment, placed the United States as an extremely individualistic society based upon its score of 91. With a value of 65, South Africa is also characterized as individualistic, but significantly less so than is the United States. South Korea, based upon its index value of 18, should be characterized as a highly

collectivist society. When examining the means for the eight dependent variables, it is important to note that one basic premise of this research is that countries with an individualistic mindset are less likely to assume a mindset that fosters sustainability. In reviewing the results for the cultural dimension of individualism, it should be noted that because we are seeking an inverse relationship, a higher mean for each of the eight dependent variables translates into a stronger focus on sustainability. Rather than individualism being a precursor to sustainability, it is proposed that collectivism is more likely to be associated with a green persona. Therefore, it should be anticipated that South Korea, by virtue of its low index value for individualism, is more likely to embrace sustainability in light of its cultural manifestation that unquestionably places the country within the realm of collectivism. If so, and as hypothesized in H1, then South Korea should tend to exhibit higher mean scores on the eight dependent variables than do either South Africa or the United States. Table 2 provides an overview of the results for the eight sustainability-related dependent variables for the three countries under scrutiny.

**Table 2. Summary of Means for the Eight Dependent Variables Focusing on Individualism**

Country	IDV	EnvApp	EnvFreq	Green	Anti-Con	CE	Help	Adv	Coach
USA	91	2.16	2.80	4.73	4.13	5.40	3.29	3.54	3.13
RSA	65	2.37	2.94	5.39	3.59	4.32	3.91	3.75	3.73
SK	18	3.15	4.51	4.90	5.19	5.54	4.43	4.41	4.28
IDV = Individualism (versus Collectivism) Index Score					Highest Mean	Lowest Mean			

For seven of the eight dependent variables, the results indicate that the South Korean society, which according to Hofstede (1980) is collectivist in nature, is the most likely of the three countries to hold attitudes or to otherwise engage in actions designed to enhance sustainability. Conversely, the United States exhibited the lowest mean score on six of the eight variables thereby reflecting its highly individualistic nature. Interestingly, South Africans were the least likely group to engage in anti-consumption behavior ( $\bar{x} = 3.59$ ) while concurrently exhibiting greater acceptance of breaches of consumer ethics ( $\bar{x} = 4.32$ ). Both of these outcomes suggest a somewhat non-sustainability-based mindset which is consistent with the country's moderately high score on the individualism index. Given these overall results, *H1 is supported*. There is an identifiable inverse relationship between sustainability and a country's score on Hofstede's individualism construct.

Next, attention is redirected to the cultural trait concerning the *long-term orientation* versus the short-term orientation of a countries' residents. The values of the index numbers for the three countries based on Hofstede's assessment were as follow: the South Koreans, with a value of 75 are seen as exhibiting a meaningful focus on long-term outcomes. Americans have the greatest interest in short-term goals as indicated by their index value of 29. The South Africans, with an index of 34, are not far behind the Americans' short-term orientation. Unlike the results for the individualism index, higher values of the long-term orientation index are hypothesized to be associated with higher levels of sustainability. Table 3 provides an overview of the results while focusing on the cultural dimension that addresses the long-term orientation of the three countries.

**Table 3. Summary of Means for the Eight Dependent Variables Focusing on Long-Term**

Country	LTO	EnvApp	EnvFreq	Green	Anti-Con	CE	Help	Adv	Coach
SK	75	3.15	4.51	4.90	5.19	5.54	4.43	4.41	4.28
RSA	34	2.37	2.94	5.39	3.59	4.32	3.91	3.75	3.73
USA	29	2.16	2.80	4.73	4.13	5.40	3.29	3.54	3.13

LTO = Long-Term (versus Short-Term) Orientation Score

Highest Mean

Lowest Mean

The results for long-term orientation were similar to those for individualism though the three countries are in reverse order as it relates to the cultural index under investigation. In contrast to the individualism construct, it is hypothesized that *higher index values will be more closely associated with issues germane to sustainability*. Thus, with an index of 75 representing a meaningful long-term orientation for South Korea, it was hypothesized that they would be associated with the higher means for the dependent variables. Such was indeed the case as the South Koreans generated the highest mean for seven of the eight dependent variables. The Koreans lagged behind the South Africans, but were ahead of the Americans in regard to their attitudes regarding green consumption. In fact, the Americans exhibited the lowest mean for six of the eight dependent variables while the South Africans exhibited the lowest mean twice. These results are in keeping with Hofstede's assessment. South Korea had the strongest long-term orientation and topped the sustainability measure seven out of eight times. The United States has the lowest index number of the three countries with its score of 29 indicative of a short-term cultural mindset. This reality is associated with less emphasis on sustainability and is demonstrated by the fact that respondents in the United States produced the lowest mean for six of the eight dependent variables while being second on the list twice. Based on these results, *H2 is supported*. Sustainability is positively related to a country's long-term orientation.

This takes us to *indulgence*, the third of Hofstede's cultural dimensions under scrutiny in the current study. For this construct, it is posited that cultures that lean towards indulgence are more prone to immediate, and perhaps excessive, gratification. Conversely, countries that practice restraint tend to behave in a more sensible manner. For this cultural construct, higher index values are associated with indulgence with lower values signifying restraint. Therefore, it is hypothesized that *lower index numbers for the indulgence construct that thereby reflect a cultural mindset that emphasizes restraint will be associated with sustainability*. For the indulgence construct, with an index value of 29, the South Koreans were characterized as exhibiting the greatest restraint. South Africa's index value of 63 places them in the somewhat indulgent spectrum while the United States, based on its index of 68, is seen as the most indulgent of the three countries. Given these statistics, it is anticipated that South Korea will exhibit the highest means whereas the United States will produce the lowest means for the eight dependent variables. The results presented in Table 4 are consistent with this premise. Therefore, *H3 is supported*. Sustainability is inversely related to a country's rating on the indulgence construct.

**Table 4. Summary of Means for the Eight Dependent Variables Focusing on Indulgence**

Country	IVR	EnvApp	EnvFreq	Green	Anti-Con	CE	Help	Adv	Coach
USA	68	2.16	2.80	4.73	4.13	5.40	3.29	3.54	3.13
RSA	63	2.37	2.94	5.39	3.59	4.32	3.91	3.75	3.73
SK	29	3.15	4.51	4.90	5.19	5.54	4.43	4.41	4.28

IVR = Indulgence (versus Restraint) Index      Highest Mean      Lowest Mean

The ordinal ranking for the three countries on the indulgence dimension is identical to what was in evidence for the long-term orientation. However, on an intervally-scaled basis, there was considerably less separation between the two highest rated countries by virtue of the United States and South Africa exhibiting index values of 68 and 63, respectively. At an index level of 29, South Korea fell far below the other two countries on the indulgence scale. The implications of these initial statistics are that the United States and South Africa are moderately indulgent from a cultural perspective whereas South Koreans are viewed as exhibiting considerable restraint. The underlying premise of this study is predicated upon the belief that indulgent countries are less likely to consider the consequences of their consumption decisions whereas those countries that exhibit restraint are more likely to be concerned about those same decisions. Therefore, it would be anticipated that South Korea would score higher on the eight dependent variables that address issues germane to sustainability. With the United States and South Africa exhibiting more indulgent mindsets, and being rated close to each other on the indulgence criterion, it is expected that they will tend to score lower than South Korea on the eight measures. Also, due to their similar rating on indulgence, it is anticipated that the two countries will exhibit similar results for the eight dependent variables. These anticipated outcomes are supported by the results shown in Table 4.

South Korea exhibited the highest mean score for seven of the eight variables for which the indulgence dimension of a country's cultural character was expected to influence. Their mean for attitudes regarding green consumption placed it second behind South Africa. The United States was identified as the most indulgent of the three countries, a fact that is supported by the results whereby the United States produced the lowest mean for six of the eight dependent variables. The South Africans indicated that they were the least likely to engage in anti-consumption behavior while concurrently being less critical of breaches of consumer ethics. So, while South African means tended to fall in the middle of the hierarchy, the scores on the eight dependent variables also tended to be relatively close to the metrics for the United States.

## DISCUSSION

While there are critics of Hofstede's methodology, this study provides support for his findings. His indices measuring a country's culture are strongly related to sustainability in a manner that one would anticipate based on his assessment. While the study looked at only three countries, the results may well be generalizable across the global marketing environment. It is reasonable to presume that countries that have similar index scores to the three in this study would behave in similar manners. South Korea and Japan both score high on the long-term orientation index whereas the United States and New Zealand both feature short-term orientation. Cultures which exhibit a short-term orientation are less concerned about the future, so the viability of the planet

in the distant future is of lesser concern to those citizens. Conversely, cultures characterized by a long-term orientation are worried about their legacy, so they opt to behave in manners that foster sustainability. Likewise, in regard to indulgence, the United States and Canada both exhibit modestly high scores of 68 whereas South Korea and Italy have scores of 30 and 29, respectively. This similarity would imply that Italy, like South Korea, tends to be more oriented towards restraint thereby translating into a stronger focus on sustainability-related issues; conversely, Canada, like its Southern neighbor may exhibit less concern about sustainability. When considering individualism, South Korea's score was 18, thus reflecting a highly collectivist cultural mindset. Countries with an index score similar to South Korea on this dimension include Taiwan (17) and Costa Rica (19). So, based upon what we know about South Korea, we can presume that attitudes regarding sustainability in Taiwan and Costa Rica are comparable. Conversely, Australia's score of 90 on the individualism index places it alongside the United States thus leading to the belief that Australia is likely to exhibit a mindset similar to that of the respondents from the United States, one that is not strongly focused on sustainability

Of the eight dependent variables, five were perfectly aligned with the index numbers on all three cultural dimensions for all three countries. Of particular note is the fact that the three scales that relate to overt action that reflects an individual's desire to convey information designed to dissuade others from making purchases that run counter to sustainability were perfectly aligned with the three indices. Thus, it can be stated that helping behavior, consumer advocacy, and consumer coaching are aligned with a long-term orientation, restraint, and collectivism. Furthermore, acceptance of non-sustainability behavior as a reason to engage in anti-consumer action is likewise closely associated with the three cultural dimensions. And these anti-consumption behaviors may well be helping behavior, consumer advocacy, and consumer coaching. Finally, we see that the three cultural dimensions are related to the frequency in which one chooses to engage in a personal boycotts.

The methodology used in this study allowed for the identification of national differences while confirming the proposition that long-term orientation, restraint (versus indulgence) and collectivism (versus individualism) are all associated with sustainability. However, the methodology was not without flaws. For starters, Hofstede's work is not without its critics; common criticisms relate to questions about reliability, validity, and the method by which his original data were collected from one company (UKEssays, 2021). Next, the analytical procedures used in the current study were fairly basic. The nature of the observed relationships begs for a more robust assessment such as structural equation modeling that would allow for a model to be created and/or tested. And as with any nonprobability sample drawn without an exhaustive sampling frame, there are questions about the representativeness of the sample. The biggest point in this regard is the lack of convenient Internet access in South Africa for a significant portion of the population. But it can be argued that many of these same inhabitants of South Africa are not part of the target population that focuses on consumers who are part of the market. Also, the sample selection process focused on residents of a country rather than citizens. So, a questionnaire completed in any one of the three countries may well have been completed by a respondent who is not from the targeted country, thereby conceivably more aligned with the cultural dynamics of their home country. Finally, this project addressed only three of the six cultural dimensions enumerated by Hofstede. While the research team deemed these three to be

the most likely of the six to be related to sustainability, an assessment of the other three constructs (power distance, masculinity, and uncertainty avoidance) might also yield meaningful results.

## CONCLUSIONS

Though within our vernacular for some 40 years, sustainability has become the buzzword of the 21<sup>st</sup> century; yet it has been characterized as a *wicked problem*. Governments are imposing new mandates designed to protect the environment into the future. Consumers purchase green products; firms implement green marketing initiatives. But much of the recent research on sustainability and green consumption has focused on the attitudes and behavior of individual consumers. The primary contribution of the current study is that the overarching focus is on a country's cultural character as measured and reported by Hofstede. Three cultural dimensions – long-term orientation, indulgence, and individualism – were found to be related to green attitudes and behavior. Within this context, the strongest relationships were found to be with overt behaviors whereby one consumer attempts to influence or otherwise provide guidance to another consumer so that they behave in a manner that promotes sustainability. Of the three countries under scrutiny, South Korea is at the forefront in terms of green initiatives and green behavior. Behind the Koreans are the United States and South Africa. This hierarchy is consistent with Hofstede's metrics on cultural dynamics. Therefore, this study provides credence to the use of Hofstede's research as a surrogate for the purpose of determining how citizens of countries not in the current study might think and behave.

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