Invariant effect of individual cultural orientations: an application of CVSCALE

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Abstract

Purpose – Culture is recognized as a pivotal variable in country of origin (COO) research. The purpose of this paper is to assess culture from an individual perspective and to examine the extent to which individual cultural orientations have similar associations with 33 manager- and consumer-related variables between two culturally opposite countries: the USA and South Korea.

Design/methodology/approach – An online survey is used. The sample size is 540 for the US sample and 572 for the Korean sample. The correlational similarity between the cultural orientations and other variables is analyzed in three ways and confirmed invariant in the majority cases of each analysis.

Findings – Individual cultural orientations are measured by Cultural Value Scale (Yoo et al., 2011), a 26-item five-dimensional scale measuring Hofstede’s typology of culture at the individual level. The three-faceted similarity test of each of the 165 pairs of correlations between the USA and Korea samples (i.e. 33 variables × 5 dimensions of individual cultural orientations) shows that the majority of the correlations are significantly similar between the two countries.

Originality/value – This is a first study in examining the invariance of the relationships of all five dimensions of Hofstede’s culture at the individual level to a variety of variables. As the invariance is found to be a norm, the role of culture in the COO phenomena can be studied at the individual level in a country and be expanded to other countries.

Keywords Culture, Hofstede, International marketing, Country of origin, CVSCALE, Individual cultural orientations, Invariant effect

Paper type Research paper

Introduction

According to the Google Scholar database accessed, out of 528 studies of country of origin (COO), 399 of them mentioned culture and 58 of them specifically relied on Geert Hofstede’s concept of culture (Assessed on March 17, 2015). This is a witness that one of the most ubiquitous constructs in COO is culture because it is useful in explaining a variety of important COO phenomena. Culture, in fact, takes a pivotal role in the study of COO by causing, interacting with, or mediating COO. For example, it is known that in individualist cultures, consumers usually give more favorable evaluations to products of superior quality regardless of COO, whereas, in collectivist cultures, consumers give more favorable evaluations to the home products regardless of attribute superiority (Gürhan-Canli and Maheswaran, 2000; Markus and Kitayama, 1991; Sharma et al., 1995). Obviously, the COO phenomena differ depending on the cultural differences. Consumers, guided by what cultural orientations they have developed under the influence of their local culture, react to

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An application of CVSCALE
Different. In COO research, Hofstede’s national culture indices have popularly served to characterize each country’s diverse cultural patterns (Hofstede, 1980, 2001). Based on Hofstede’s indices, for example, Usunier and Cestre (2007) distinguished individualist countries (Canada, France, Germany, Great Britain, and the USA) from collectivist countries (China, Mexico, and Tunisia) to examine the effect of culture on COO.

However, profiling the country’s culture by Hofstede’s indices and stereotyping the entire population as the owners of the same culture is methodologically erroneous for a few serious reasons. First, Hofstede’s indices are yet to be updated as they were calculated through 1960s and 1970s data (Hofstede, 1980, 2001). As culture is learned rather than inherited by birth, culture changes over time, for example, thanks to globalization, internet, telecommunications, and international travels. Second, the sample originally used in Hofstede’s (1980, 2001) work was the employees of one particular multinational corporation (i.e. IBM), who were well-educated, young, and male-dominant elites in most countries in those years. Accordingly, the sample did not and does not represent the general population, especially, in developing countries. Third, although the overall sample size (116,000) was impressive, the sample size of certain individual countries was too small to trust their cultural scores. Hofstede (1980) limited the final set of countries to 40 countries with more than 50 respondents, but the then-excluded countries were reinstated in his second edition (2001) for unknown reason.

To avoid the issues listed above, culture needs to be measured freshly at the moment of the research to precisely describe the culture of the exact participants for the study. It requires culture to be measured at the individual level rather than at the national or ethnic level (e.g. Kirca et al., 2006; Chelminski and Coulter, 2007; Paul et al., 2006; Sousa and Bradley, 2006). Traditionally, culture is given facts, by which individuals in a country, when having the same nationality, are stereotyped to belong to the same culture. Such an approach faces no trouble when the unit of analysis is a nation. However, it faces a very serious dilemma when the unit of analysis is an individual because individuals develop individual differences even when born and raised in the same nation. Chirkov et al. (2003) confirmed, through a four-country study, that individuals differently assimilate or internalize cultural orientations of the society to which they belong, depending on how those cultural orientations match their basic psychological needs. This implies that when the unit of cultural analysis is an individual, culture needs to be assessed at the individual level. In other words, it should be acknowledged that individuals in the same nation range in cultural orientations. This is very true, for example, when a multinational corporation identifies global consumers beyond national borders for their global brands (Chabowski et al., 2013; Riefler et al., 2011). In selling the global brand, it would be ineffective if the corporation segments consumers by the nations because there are sizable active consumers for any brand over the world even in the low-income nations.

When culture is applied to individuals, two issues arise. First, what scale can we use to measure cultural orientations embedded in the individual’s mind? Second, is the effect of individual cultural orientations similar across countries? The purpose of this research focuses on the second issue. As for the first one, we are adopting a well-established scale called Cultural Value Scale (CVSCALE), which has been proved to be reliable and valid in measuring Hofstede’s renowned five dimensions of culture at the individual level (Yoo et al., 2011). If the effect of individual cultural orientations is found similar across countries, it would be possible for researchers to apply the theories of culture developed by one nation’s sample to other countries. Specifically, in this research, we examine how similar the effect of individual cultural orientations, measured for Hofstede’s five dimensions of culture, on 33 manager- and consumer-related variables is between two culturally dissimilar countries: the USA and South Korea.

**Measuring culture at the individual level and CVSCALE**

Unarguably, Hofstede’s (1980, 2001) five dimensions of culture (power distance, uncertainty avoidance, collectivism/individualism, masculinity/femininity, long-/short-term time
orientation) are the most widely accepted and cited measure of culture in COO research and any other field of social sciences, despite the acknowledgment that culture is far broader and deeper than his dimensions. They are typically applied to the country level, which means that a country’s member citizens are marked to have the same culture as guided in Hofstede’s national culture index of the country. Such a way is called indirect values inference on secondary data (Hoffmann, Sophia, Uta and Mai, 2013). But to accurately measure the cultural orientations of citizens of the country, a researcher needs to determine the orientations of each individual, which is called direct value inference. Direct measurement of individual cultural orientations is the way not to violate the ecological fallacy, an error that the ecological or country-level relationships are applied to individuals (Hofstede, 1980). Because there are significant inter-individual variations within the same country, cultural orientations need to be measured for individuals, not stereotyped by the aggregated scores of the past (Hoffmann, Mai and Cristescu, 2013).

The challenge that many researchers want to solve is to develop a scale to measure culture at the individual level, especially, for Hofstede’s five dimensions of culture. Hofstede’s latest scale named Values Survey Module 94 or VSM 94 records too low reliability when applied to individuals in multinational data (Kirca et al., 2005; Hoppe, 1990; Spector et al., 2001). Soares et al. (2007) reported poor reliability indices of the scale which range from −0.26 to 0.51. Kirca et al. (2005) concluded, “The unidimensional measures of (Hofstede’s) national culture do not perform as well as multidimensional measures and that additional work in this area is needed to accurately capture psychological, individual-level cultural traits” (p. 202). Past efforts responding to such a call can be summarized in two ways (Yoo et al., 2011). First, researchers tend to develop a scale for one or any mix of Hofstede’s five dimensions. Such a practice raises concerns, such as incompleteness not covering all dimensions of culture, lack of conceptual conformity to the original definition of each dimension meant by Hofstede, lack of unidimensionality with other cultural measures developed independently by different authors, and too complicated subdimensions for each dimension at the expense of measurement parsimony (e.g. Bearden et al., 2006; Hui, 1984; Triandis, 1995). Second, even when researchers try to develop all of Hofstra’s dimensions, they yet fail to escape from other issues, such as omission of one or two of dimensions (e.g. long-term orientation not covered in Dorfman and Howell, 1988; and long-term orientation and masculinity not covered in Erdem et al., 2006), poor psychometric properties (Furrer et al., 2000), and reconceptualization and overexpansion of the dimensions (Sharma, 2011).

As a result, the current international marketing literature about how to assess Hofstede’s cultural dimensions at the individual level is chaotic because no scale is universally accepted yet. Fortunately, Yoo et al.’s (2011) CVSCALE, addressing all concerns mentioned earlier, deserves getting attention from international marketing academics and practitioners. It is a 26-item five-dimensional scale of individual cultural values that covers all of Hofstede’s cultural dimensions simultaneously. It was designed to fit both manager- and consumer-related contexts. Schumann et al. (2012) confirmed that CVSCALE owns adequate cross-cultural measurement equivalence (specifically, configural, metric, and scalar) in their 11-country study. After testing the scale rigorously, using two large samples of the USA and an item-response theoretical approach, Mazanec et al. (2015) concluded a reasonably valid and reliable measure of Hofstede’s five cultural dimensions on the individual level and it makes it possible for researchers to conveniently relate Hofstede’s concept of culture to an individual’s characteristics, motivation, and decision making for a variety of situations.

The procedure to develop CVSCALE (Yoo et al., 2011) consisted of generation of an appropriate initial pool of 230 items based on Hofstede’s works and relevant non-Hofstede works that carry the core meanings of each cultural dimension; reduction to 125 items after wording reevaluations by multiple culture-research experts; reduction to 86 for response-pattern
redundancy by a survey of 196 US participants; reduction to 39 items for reliability and clear factor loadings by a survey of 116 US participants; reduction to 26 final items for clear factor structure, reliability, and scale invariance by a survey of 1,530 participants for three distinct ethnic groups (USA, Korea, and Korean-American); testing the 26-item five-dimensional measurement model for scale invariance by a survey of 213 American adults and 220 Korean adults; testing the scale reliability by 300 Polish adults and 149 Brazilian students. The authors of the scale also demonstrated that CVSCALE produces a better international market segmentation result than the country-centered segmentation. In summary, this parsimonious scale showed adequate reliability, validity, and across-sample and across-national generalizability.

Since the paper on the CVSCALE development was published in 2011, it increases popularity and acceptance in cross-cultural research. Table AI reports selected studies where the reliability of the scale was reported. Here are some observations on the studies that used CVSCALE. First, the number of studies using the scale is increasing over time. For less than four years since its publication, the scale was cited in 69 academic studies as of March 2015. Second, the reliability is satisfactory across all dimensions in a variety of countries and sample types. The average reliability ranges from 0.72 (masculinity) to 0.78 (collectivism). Third, the reliability was consistently satisfactory, just showing a 0.02 difference on average, between the original English version of the scale and any non-English translated version. Fourth, the scale was administered, in either English or a local language, to a variety of countries over the world. Fifth, the scale assessed the cultural orientations of various sample types including students, adult consumers, workers, salespeople, professionals, and managers. Sixth, CVSCALE was hired to cross-nationally examine the impact of individual cultural orientations on a variety of manager- and consumer-level marketing constructs, such as advertising absurdity (Gelbrich et al., 2012), bounded autonomy (Warren and Campbell, 2013), buying decisions (Sarma, 2014), charitable behavior (Winterich and Zhang, 2014), compulsive internet use (Quinones and Kakabadse, 2015), consumer emotions and complaints (Baker et al., 2013), consumer expectations (Nath et al., 2014; Reid, 2011), consumer satisfaction (Krüger, 2011), emotional intelligence (Gunkel et al., 2014), entrepreneurial intention (Koe and Majid, 2014), impulsive buying (Dameyasani and Abraham, 2013), international strategic opportunism (Furrer and Tjemkes, 2013), organizational and job satisfaction (Blume et al., 2013; Goh et al., 2014), relational service exchange (Schumann et al., 2012), collegiality and collaboration (Ning et al., 2015), service failures (de Matos et al., 2012), and team innovation (Rodriguez and Hechanova, 2014).

In summary, all those studies that cited CVSCALE verify that the scale is adequate to measure Hofstede’s five cultural dimensions at the individual level across countries and to examine the role of culture on marketing variables at the individual level.

The research question and method

Obviously, there are cultural differences between any pair of countries. But an interesting question is whether or not the relationship of culture to a set of manager- and consumer-related constructs is similar between the countries. The question cannot be answered if the number of countries in investigation is too small, which is exactly one of the major difficulties of cross-national research on culture. However, it can be answered properly if the unit of analysis changes to an individual from a country. In fact, in international marketing, there has been an effort to identify universals, which are defined as “segment- and product-specific consumer (or human; we added) behaviors that are invariant across cultures or countries” (Dawar and Parker, 1994, p. 81). Certain behavioral traits are invariant to humans everywhere (Brown, 1991). When human behaviors are carefully examined, the relationship of variable A to variable B could be found universal cross-countries. For example, Dawar and Parker (1994) found that
brand name, price, physical appearance, and retailer reputation are universal signals of product quality across 38 nations. McGowan and Sternquist (1998) confirmed that market-universal behaviors exist for the effect of different price measures between Japanese and US consumers. However, the research question we raise is not to seek behavioral universality across countries, that is, whether or not the behavior of people is universal or culture specific (Adler, 1983). Instead, our research question is whether or not individual cultural orientations have universal effects on manager- and consumer-related variables across countries, which is quite a relevant and meaningful question to the COO research. If individual cultural orientations are found to have similar roles to marketing constructs across countries, multinational corporations will be able to segment consumers for their businesses in the global market or in any number of countries by their cultural orientations and to manage COO in different countries effectively by understanding consumers’ individual differences in cultural orientations. For example, Paul et al. (2006) found the impact of five types of individual cultural orientations on marketing ethical norms invariant in India and the USA with a few exceptions. Yoo (2009) observed the effect of a person’s collectivistic orientation on brand loyalty and brand equity also to be invariant between South Korea and the USA.

In the past, little effort has been spent to research the universal effect of individual cultural orientations by examining its relationship to a variety of manager- and consumer-related variables. The purpose of our research is to examine the extent to which individual cultural orientations measured by CVSCALE relates to as many manager- and consumer-related variables as possible. If the relationship between cultural orientations and the manager- and consumer-related variables is found similar between countries which are known to have significantly different cultures, then multinational corporations will have more flexibility and accuracy in serving international consumers.

Variables and measures
Appendix 2 exhibits the variables and their measures included in our questionnaire. First, CVSCALE is used to measure five cultural values at the individual level. Second, three types of preferred leadership styles are measured: paternalistic leadership (Cheng et al., 2004), preference for directive leadership (Conger and Kanungo, 1994), and preference for participative leadership (Sagie et al., 2002). Third, four kinds of organizational commitment are measured: team commitment (Meyer et al., 1993), normative organizational commitment (Iverson and Buttigieg, 1999), continuance commitment (Baumeister and Leary, 1995), and cooperation in groups (De Cremer and Tyler, 2007). Fourth, preferences of five types of compromising conflict management styles (Rahim, 1983) are measured: the obliging/accommodating style, avoiding, compromising, dominating/competing, and integrating/collaborating/problem-solving. Fifth, four types of equality are measured: value of individual equality-seniority and value of individual equality-equity (Chen, 1995), income inequality (World Value Survey, 2014), and gender role equality (Parboteeah et al., 2008). Sixth, three kinds of ethics are measured: utilitarian trait and formalist trait (Brady and Wheeler, 1996) and unethical behavior perception toward financiers (Kaptein, 2008). Seventh, nine kinds of interpersonal traits are measured: need for affiliation (Baumeister and Leary, 1995), agreeableness (Goldberg, 1999), feedback seeking (Tuckey et al., 2002), concern for self’s interests in conflict and concern for others’ interests (Rubin et al., 1994; Sorenson et al., 1999; Straus et al., 1996), embarrassability (Modigliani, 1966), social avoidance (Jari-Erik and Salmela-Aro, 1999), neuroticism (Goldberg, 1999), and social desirability (Strahan and Gerbasi, 1972). Eighth, two types of innovativeness are measured: innovativeness (Yi et al., 2006) and openness to experience (Goldberg, 1999). Ninth, three types of general life styles are measured: life satisfaction (Clench-Aas et al., 2011), protestant religiosity (De Jong and Faulkner, 1967), and family as the most important element in life (Jackson, 1981).
Except for CVSCALE, all variables are selected as they are manager- and consumer-related constructs popularly researched in international marketing. Therefore, the findings of this study benefit multinational corporations to find better ways to manage their brands and serve consumers in different countries. All items are measured on seven-point Likert scales, ranging from “strongly disagree” (1) to “strongly agree” (7). But three variables (long-term orientation, utilitarian trait, and formalist trait) are measured in a seven-point scale of “not at all important” (1) to “extremely important” (7). In addition to those variables, worker characteristics and demographics are measured, including gender, marital status, age, formal education, employment status, and annual household income.

Procedure and sample
We selected the USA and South Korea because they have very different Hofstede’s (1980) national culture indices, representing the East and the West and a wide continuum of national culture. The intention of the selection was to find out if the relationship between individual cultural orientations and the business and consumer variables of interest could be similar between the two fundamentally dissimilar nations in a variety of cultural aspects. An English survey was first created, and then its Korean version was prepared through translation and back-translation of the instrument for the language equivalence. But the Korean version of CVSCALE was readily available at Yoo et al. (2011).

The survey was conducted online. Full-time employed local people in the USA and Korea were invited by e-mail and given the URL link to the survey. In a week, they were sent a reminder e-mail. They were not provided any incentive for participation, which was purely voluntary. Participants in Korea responded to the Korean online survey, whereas those in the USA did to the English online survey. After excluding unemployed or retired participants, the sample size became 540 people for the USA and 572 for Korea. The Korean sample took 12 minutes 44 minutes on average (STD 1 minute 18 seconds) to complete the survey, whereas the US sample took 12 minutes 58 minutes (STD 3 minutes 30 seconds; \( t = 1.15, \) ns). The two samples were similar in age (34.1 years on average for the USA and 36.4 for Korea; \( t = −1.91, \) ns) and formal education (16.6 years for both countries; \( t = 0.12, \) ns), but different in annual household income (US$114,969 for the USA and US$77,126 for Korea; \( t = 9.18, p < 0.0001)\), gender (47.9 percent males for the USA and 59.4 percent for Korea; \( \chi^2 = 14.72, p < 0.0001)\), and marital status (43.5 percent married for the USA and 56.2 percent for Korea; \( \chi^2 = 10.31, p < 0.01)\). The sample differences deemed to reflect the population differences properly; the American sample earns a higher income, have higher gender equality in employment, and marry later with a higher divorce rate than the Korean counterpart.

Reliability and mean differences
Table I reports the reliability of CVSCALE and 33 manager- and consumer-related variables where “family as the most important,” a single-item measure, is excluded, and mean differences between the US and Korean samples. A few things can be observed. First, all of the five dimensions of CVSCALE achieved satisfactory reliability for both samples, ranging from 0.80 (power distance) to 0.89 (long-term orientation) for the US sample and from 0.73 (power distance) to 0.91 (collectivism) for the Korean sample.

Second, 31 and 30 out of 32 multi-item manager- and consumer-related variables made greater reliability than the recommended threshold value of 0.60 (Bagozzi and Yi, 1988), for the USA and Korea, respectively, and the rest variables showed at least 0.54.

Third, when the CVSCALE scores of the samples were compared to Hofstede’s national culture indices, only long-term orientation (29 and 75 in Hofstede for the USA and Korea, respectively; 5.39 and 5.55 in CVSCALE; \( t = −3.02, p < 0.01)\) and uncertainty avoidance (46 and 85; 5.29 and 5.66; \( t = −6.36, p < 0.0001)\) were consistent with Hofstede’s. But power distance (40 and 60 in Hofstede) was just directionally matching (2.71 and 2.77 in CVSCALE;
<table>
<thead>
<tr>
<th>Constructs</th>
<th>Number of items</th>
<th>Reliability USA</th>
<th>Reliability Korea</th>
<th>Mean differences USA</th>
<th>Mean differences Korea</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural orientations (CVSCALE)</td>
<td></td>
<td></td>
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<tr>
<td>Power distance</td>
<td>5</td>
<td>0.80</td>
<td>0.73</td>
<td>2.71</td>
<td>2.77</td>
<td>−0.82</td>
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<tr>
<td>Uncertainty avoidance</td>
<td>5</td>
<td>0.86</td>
<td>0.85</td>
<td>5.29</td>
<td>5.66</td>
<td>−6.36****</td>
</tr>
<tr>
<td>Collectivism</td>
<td>6</td>
<td>0.83</td>
<td>0.91</td>
<td>4.46</td>
<td>3.37</td>
<td>16.43****</td>
</tr>
<tr>
<td>Masculinity</td>
<td>4</td>
<td>0.86</td>
<td>0.78</td>
<td>3.04</td>
<td>3.79</td>
<td>−9.16****</td>
</tr>
<tr>
<td>Long-term orientation</td>
<td>6</td>
<td>0.89</td>
<td>0.75</td>
<td>5.39</td>
<td>5.55</td>
<td>−0.30**</td>
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<tr>
<td>Preferred leadership styles</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1. Preference for paternalistic leadership</td>
<td>6</td>
<td>0.87</td>
<td>0.92</td>
<td>4.33</td>
<td>4.12</td>
<td>2.85**</td>
</tr>
<tr>
<td>2. Preference for directive leadership</td>
<td>6</td>
<td>0.90</td>
<td>0.82</td>
<td>5.26</td>
<td>5.29</td>
<td>−0.53</td>
</tr>
<tr>
<td>3. Preference for participative leadership</td>
<td>3</td>
<td>0.86</td>
<td>0.87</td>
<td>4.86</td>
<td>4.83</td>
<td>0.49</td>
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<td>Organizational commitment</td>
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<tr>
<td>4. Team commitment</td>
<td>6</td>
<td>0.81</td>
<td>0.86</td>
<td>4.28</td>
<td>4.35</td>
<td>−1.01</td>
</tr>
<tr>
<td>5. Normative organizational commitment</td>
<td>4</td>
<td>0.75</td>
<td>0.72</td>
<td>3.96</td>
<td>3.48</td>
<td>6.94****</td>
</tr>
<tr>
<td>6. Continuance commitment</td>
<td>4</td>
<td>0.86</td>
<td>0.74</td>
<td>4.27</td>
<td>4.30</td>
<td>−0.33</td>
</tr>
<tr>
<td>7. Cooperation in groups</td>
<td>3</td>
<td>0.55</td>
<td>0.54</td>
<td>4.70</td>
<td>5.06</td>
<td>−6.71****</td>
</tr>
<tr>
<td>Preferred compromising conflict management styles</td>
<td></td>
<td></td>
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<tr>
<td>8. Obliging/accommodating</td>
<td>6</td>
<td>0.89</td>
<td>0.84</td>
<td>5.05</td>
<td>4.96</td>
<td>1.72*</td>
</tr>
<tr>
<td>9. Avoiding</td>
<td>6</td>
<td>0.87</td>
<td>0.88</td>
<td>4.23</td>
<td>4.43</td>
<td>−3.00***</td>
</tr>
<tr>
<td>10. Compromising</td>
<td>4</td>
<td>0.84</td>
<td>0.86</td>
<td>4.83</td>
<td>4.92</td>
<td>−1.72*</td>
</tr>
<tr>
<td>11. Dominating/competing</td>
<td>5</td>
<td>0.83</td>
<td>0.86</td>
<td>4.45</td>
<td>4.61</td>
<td>−2.62***</td>
</tr>
<tr>
<td>12. Integrating/collaborating/problem-solving</td>
<td>7</td>
<td>0.93</td>
<td>0.91</td>
<td>5.21</td>
<td>5.17</td>
<td>0.79</td>
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<tr>
<td>Equality</td>
<td></td>
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<tr>
<td>13. Value of individual equality · Seniority</td>
<td>2</td>
<td>0.69</td>
<td>0.78</td>
<td>4.00</td>
<td>3.95</td>
<td>0.62</td>
</tr>
<tr>
<td>14. Value of individual equality · Equity</td>
<td>4</td>
<td>0.70</td>
<td>0.64</td>
<td>3.95</td>
<td>4.22</td>
<td>−4.35****</td>
</tr>
<tr>
<td>15. Income inequality</td>
<td>4</td>
<td>0.65</td>
<td>0.59</td>
<td>3.36</td>
<td>3.66</td>
<td>−5.16****</td>
</tr>
<tr>
<td>16. Gender role equality</td>
<td>4</td>
<td>0.87</td>
<td>0.80</td>
<td>5.24</td>
<td>3.28</td>
<td>−5.53****</td>
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<tr>
<td>Ethics</td>
<td></td>
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<tr>
<td>17. Utilitarian trait</td>
<td>7</td>
<td>0.91</td>
<td>0.80</td>
<td>5.52</td>
<td>5.48</td>
<td>0.93</td>
</tr>
<tr>
<td>18. Formalist trait</td>
<td>7</td>
<td>0.93</td>
<td>0.86</td>
<td>5.85</td>
<td>5.93</td>
<td>−1.58</td>
</tr>
<tr>
<td>19. Unethical behavior perception toward financiers</td>
<td>7</td>
<td>0.96</td>
<td>0.91</td>
<td>5.61</td>
<td>5.56</td>
<td>0.72</td>
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<tr>
<td>Interpersonal traits</td>
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<tr>
<td>20. Need for affiliation</td>
<td>2</td>
<td>0.72</td>
<td>0.59</td>
<td>5.32</td>
<td>5.62</td>
<td>−4.59****</td>
</tr>
<tr>
<td>21. Agreeableness</td>
<td>6</td>
<td>0.92</td>
<td>0.89</td>
<td>5.40</td>
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<td>5.88</td>
<td>−6.12****</td>
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<td>0.77</td>
<td>3.17</td>
<td>3.28</td>
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<td>5</td>
<td>0.89</td>
<td>0.82</td>
<td>3.18</td>
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<td>0.90</td>
<td>0.92</td>
<td>4.90</td>
<td>4.75</td>
<td>2.23*</td>
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<td>0.73</td>
<td>5.01</td>
<td>5.09</td>
<td>−1.52</td>
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<td>General life styles</td>
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</tr>
<tr>
<td>31. Life satisfaction</td>
<td>5</td>
<td>0.88</td>
<td>0.87</td>
<td>4.60</td>
<td>4.19</td>
<td>5.96****</td>
</tr>
<tr>
<td>32. Protestant religiosity</td>
<td>8</td>
<td>0.93</td>
<td>0.94</td>
<td>3.69</td>
<td>3.27</td>
<td>4.37****</td>
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<tr>
<td>33. Family as the most important</td>
<td>1</td>
<td>na</td>
<td>na</td>
<td>0.78</td>
<td>0.81</td>
<td>−1.17</td>
</tr>
</tbody>
</table>

Notes: $n = 540$ (USA) and 572 (South Korea). na, not applicable. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$; ****$p < 0.0001$
t = −0.82, ns). And collectivism (91 and 18 measured as individualism in Hofstede; 4.46 and 3.37; t = 14.43, p < 0.0001) and masculinity (62 and 39; 3.04 and 3.79; t = −9.16, p < 0.0001) were opposite in score to Hofstede’s. A possible explanation on lower collectivism of the Korean sample includes the Korean tradition of extreme competition for survival developed throughout the war and industrialization process, experiences with massive layoffs during the 1990s Asian Financial Crisis, and the dramatic increase in personal wealth compared to 1960s when Hofstede (1980) surveyed the IBM workers to develop his typology of culture. Interestingly enough and consistent with our data, Shteynberg et al. (2009) found that when asked about their personal values, Americans reported that they were much more collectivistic than Koreans. As for the masculinity, Korea is known for her male-centeredness as evidenced in her clear gender discriminating traditions. We suspect Hofstede’s index could be incorrect for power distance because Korea shows similar cultural scores with her neighboring countries, China and Japan, in all other dimensions of culture except for power distance and the sample size of Korea (smaller than 50) in Hofstede’s study was too small to produce reliable results. By the way, it is noteworthy that Taras et al. (2012) observed in their meta-analysis of Hofstra’s national culture indices that Korea shows a higher power distance and individualism score than the USA.

Fourth, the US sample showed significant mean-score differences from the Korean sample in most manager- and consumer-related variables, except for ethics. This shows that the two countries were different for the variables when considering mean scores, which was very natural. For example, compared to the Korean sample, the US sample preferred paternalistic leadership; showed higher normative organizational commitment but lower cooperation in groups; preferred the obliging and accommodating style as the compromising mechanism in group conflict; supported inequality; felt lower need for affiliation, feedback seeking, concern for self or others, neuroticism, and higher social desirability; were more innovative and more satisfied with life; and showed higher Protestant religiosity.

**Similarity test of the correlations between the samples**

Table II reports the simple correlations between Hofstede’s five types of culture measured at the individual level and the 33 manager- and consumer-related variables for each of the US and Korean samples. The sign of each correlation (i.e. positive, negative, or insignificant) is well documented in the three-decade, multilevel (i.e. national, organizational, and individual) meta-analysis of Hofstede’s cultural value dimensions by Taras et al. (2010). For example, in Taras et al. (2010), cooperation in groups is known to have a positive correlation with collectivism, power distance, and uncertainty avoidance and a negative correlation with masculinity. Our study by and large confirms such results in both samples. Our focal interest, though, is not to compare the correlations to those found in the literature one by one, but to examine if the individual-level correlations are similar between the two selected countries with highly dissimilar national cultures to each other.

The correlational similarity was analyzed in three ways. First, among the entire number of correlations, which is 165 (i.e. 33 manager- and consumer-related variables × 5 dimensions of individual cultural orientations), how many pairs of them has the same sign between the samples regardless of the significance level of the correlation? The answer is 133, which means 80.6 percent of all of the correlations has the same sign between the samples. This high number signifies the extent of the similarity of the impact of individual cultural orientations on manager- and consumer-related variables in both nations. Second, when the significance of the correlation is considered at the 0.05 level, how many pairs of correlations have the same sign between the samples? The answer is 111, that is, 67.3 percent, which consists of two types of possibilities: both samples achieved significant correlations with the same sign (55.8 percent) and insignificant correlations at the 0.05 level (11.5 percent).
<table>
<thead>
<tr>
<th>Constructs</th>
<th>The US sample</th>
<th>The Korea sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preferred leadership styles</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Preference for paternalistic leadership</td>
<td>0.01* 0.04*</td>
<td>0.06* 0.17</td>
</tr>
<tr>
<td>2. Preference for directive leadership</td>
<td>−0.13 0.16</td>
<td>−0.04 0.27</td>
</tr>
<tr>
<td>3. Preference for participative leadership</td>
<td>0.15 0.21</td>
<td>0.05* 0.14</td>
</tr>
<tr>
<td><strong>Organizational commitment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Team commitment</td>
<td>0.14 0.20</td>
<td>0.28 0.07*</td>
</tr>
<tr>
<td>5. Normative organizational commitment</td>
<td>0.15 0.16</td>
<td>0.05* 0.20</td>
</tr>
<tr>
<td>6. Continueance commitment</td>
<td>−0.03* 0.25</td>
<td>−0.02* 0.28</td>
</tr>
<tr>
<td><strong>Preferred compromising conflict management styles</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Cooperation in groups</td>
<td>0.08* 0.20</td>
<td>−0.05* 0.28</td>
</tr>
<tr>
<td>8. Obliging/accommodating</td>
<td>−0.02* 0.14</td>
<td>0.12 0.06*</td>
</tr>
<tr>
<td>9. Avoiding</td>
<td>−0.31 0.20</td>
<td>−0.17 0.18</td>
</tr>
<tr>
<td>10. Compromising</td>
<td>−0.24 0.21</td>
<td>0.12 0.18</td>
</tr>
<tr>
<td>11. Dominating/competing</td>
<td>−0.15 0.19</td>
<td>0.21 0.14</td>
</tr>
<tr>
<td>12. Integrating/collaborating/problem-solving</td>
<td>−0.43 0.22</td>
<td>−0.21 0.36</td>
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<tr>
<td><strong>Equality</strong></td>
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<td></td>
</tr>
<tr>
<td>13. Value of individual equality – Seniority</td>
<td>−0.11 0.14</td>
<td>0.21 0.14</td>
</tr>
<tr>
<td>14. Value of individual equality – Equity</td>
<td>0.22 0.20</td>
<td>0.11 0.11</td>
</tr>
<tr>
<td><strong>Ethics</strong></td>
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<td></td>
</tr>
<tr>
<td>15. Income inequality</td>
<td>−0.17</td>
<td>−0.28</td>
</tr>
<tr>
<td>16. Gender role equality</td>
<td>−0.49</td>
<td>−0.69</td>
</tr>
<tr>
<td><strong>Interpersonal traits</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Need for affiliation</td>
<td>0.15 0.08*</td>
<td>0.27 0.12</td>
</tr>
<tr>
<td>18. Agreeableness</td>
<td>−0.23</td>
<td>−0.26</td>
</tr>
<tr>
<td>19. Feedback seeking</td>
<td>−0.46 0.19</td>
<td>0.44 0.43</td>
</tr>
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</table>

Table II. Correlations of manager- and consumer-related constructs to individual cultural orientations
The US sample | The Korea sample

<table>
<thead>
<tr>
<th>Constructs</th>
<th>PO</th>
<th>UA</th>
<th>CO</th>
<th>MA</th>
<th>LT</th>
<th>PO</th>
<th>UA</th>
<th>CO</th>
<th>MA</th>
<th>LT</th>
</tr>
</thead>
<tbody>
<tr>
<td>23. Concern for self</td>
<td>$-0.07^*$</td>
<td>0.58</td>
<td>0.25</td>
<td>$-0.20$</td>
<td>0.50</td>
<td>$-0.11$</td>
<td>0.25</td>
<td>0.06$^*$</td>
<td>0.02$^*$</td>
<td>0.37</td>
</tr>
<tr>
<td>24. Concern for others</td>
<td>$0.02^*$</td>
<td>0.34</td>
<td>0.24</td>
<td>$-0.06^*$</td>
<td>0.24</td>
<td>$-0.05^*$</td>
<td>0.13</td>
<td>0.16</td>
<td>0.09</td>
<td>0.24</td>
</tr>
<tr>
<td>25. Embarrassability</td>
<td>0.21</td>
<td>0.06$^*$</td>
<td>0.8$^*$</td>
<td>0.18</td>
<td>0.00$^*$</td>
<td>0.14</td>
<td>0.05$^*$</td>
<td>$-0.02^*$</td>
<td>0.04$^*$</td>
<td>$-0.02^*$</td>
</tr>
<tr>
<td>26. Social avoidance</td>
<td>0.35</td>
<td>$-0.18$</td>
<td>0.05$^*$</td>
<td>0.38</td>
<td>$-0.18$</td>
<td>0.27</td>
<td>$-0.13$</td>
<td>0.14</td>
<td>0.17</td>
<td>$-0.03^*$</td>
</tr>
<tr>
<td>27. Neuroticism</td>
<td>0.33</td>
<td>$-0.19$</td>
<td>0.01$^*$</td>
<td>0.32</td>
<td>$-0.20$</td>
<td>0.11</td>
<td>$-0.10$</td>
<td>0.01$^*$</td>
<td>0.07$^*$</td>
<td>$-0.10$</td>
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<tr>
<td>28. Social desirability</td>
<td>0.00$^*$</td>
<td>$-0.21$</td>
<td>$-0.28$</td>
<td>0.03$^*$</td>
<td>$-0.27$</td>
<td>0.06$^*$</td>
<td>$-0.17$</td>
<td>$-0.06^*$</td>
<td>$-0.02^*$</td>
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**Innovativeness**

<table>
<thead>
<tr>
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<th>MA</th>
<th>LT</th>
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<th>UA</th>
<th>CO</th>
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<th>LT</th>
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</thead>
<tbody>
<tr>
<td>29. Innovativeness</td>
<td>$-0.01^*$</td>
<td>0.21</td>
<td>0.24</td>
<td>$-0.09$</td>
<td>0.32</td>
<td>$-0.05^*$</td>
<td>0.10</td>
<td>0.10</td>
<td>0.06$^*$</td>
<td>0.21</td>
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<tr>
<td>30. Openness to experience</td>
<td>$-0.08^*$</td>
<td>0.31</td>
<td>0.24</td>
<td>$-0.14$</td>
<td>0.35</td>
<td>$-0.12$</td>
<td>0.12</td>
<td>$-0.04^*$</td>
<td>$-0.05^*$</td>
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**General life styles**

<table>
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<th>CO</th>
<th>MA</th>
<th>LT</th>
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<th>UA</th>
<th>CO</th>
<th>MA</th>
<th>LT</th>
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<tbody>
<tr>
<td>31. Life satisfaction</td>
<td>0.05$^*$</td>
<td>0.20</td>
<td>0.22</td>
<td>$-0.10$</td>
<td>0.21</td>
<td>0.01$^*$</td>
<td>0.07$^*$</td>
<td>0.18</td>
<td>0.06$^*$</td>
<td>0.14</td>
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<tr>
<td>32. Protestant religiosity</td>
<td>0.22</td>
<td>0.10</td>
<td>0.12</td>
<td>0.26</td>
<td>0.03$^*$</td>
<td>0.06$^*$</td>
<td>$-0.03^*$</td>
<td>0.11</td>
<td>0.08</td>
<td>0.06$^*$</td>
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<td>$-0.12$</td>
<td>0.12</td>
<td>0.05$^*$</td>
<td>$-0.12$</td>
<td>0.18</td>
<td>$-0.05^*$</td>
<td>0.02$^*$</td>
<td>$-0.09$</td>
<td>$-0.10$</td>
<td>0.00$^*$</td>
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</table>

**Notes:** PO, power distance; UA, uncertainty avoidance; CO, collectivism; MA, masculinity; LT, long-term orientation. All correlations are significant at 0.05. $^*$Significant at 0.05.
A total of 31.5 percent of the correlations was significant in one sample but not in the other sample. In two correlations (1.2 percent), which were significant in both samples, the sign was the opposite between the samples. The result shows the number of correlations with high similarity decreases when the significance level is considered, but the similarity is still strong.

Third, what if the similarity of each pair of the correlations between the samples is tested more formally? For that purpose, we conducted the Fisher z transformation, which yields “z (normal curve) test for the significance of the difference between two sample correlation coefficients” (Meng et al., 1992, p. 173). The first step of the transformation is to convert the correlation of each sample, \( r \), to \( r' \), where \( r' \) is normally distributed. The conversion formula is \( r' = 0.5 \times \log_{10} \left( \frac{1 + r}{1 - r} \right) \), where the standard error for \( r' \) is 1 divided by square rooted \((n - 3)\). To test the difference between the two independent \( r' \) values, \( z \) is computed as \( \frac{r'_1 - r'_2}{\sqrt{\frac{1}{n_1 - 3} + \frac{1}{n_2 - 3}}} \). Significance of \( z \) is the indicator of the invariant correlations between two independent samples. The result of analysis for our correlations was that 92 USA-Korea pairs of correlations, that is, 55.8 percent showed invariance. In details, 27.9 percent of the correlations were equally positive between the samples, not showing a significant difference; 22.5 percent, equally negative; and 16.4 percent, equally insignificant. But 44.2 percent failed to show significant correlational invariance between samples mainly because their correlational coefficients were significantly different in size between the samples or scarcely had opposite signs.

Discussion
We wanted to examine if cultural orientations have similar associations with manager- and consumer-related variables in two culturally opposite countries. For that purpose, we selected the USA and South Korea and surveyed full-time employed people in each country. We, then, using CVSCALE, a 26-item five-dimensional scale of individual cultural orientations measuring Hofstede’s renowned five typologies of culture at the individual level, calculated simple correlations of the five cultural dimensions that people self-reported to 33 manager- and consumer-related variables. The three-faceted similarity test of each of the 165 pairs of correlations between the US and Korea samples (i.e. 33 variables \( \times \) 5 dimensions of individual cultural orientations) showed that the majority of the correlations were significantly similar between the two samples.

This result has important implications to COO researchers and brand managers. First, it shows that culture can be successfully assessed at the individual level. If the country is used as the surrogate of culture as a usual research tradition in international marketing, member citizens become stereotyped to possess the same culture. But the reality is people born and raised in any country differently assimilate to their main stream culture. As humans freely pursue own unique preferences and lifestyles, people feel more attracted to certain cultural values and less to others wherever they reside against their local cultural norms. So, in international marketing research, it is reasonable to acknowledge their individual differences in absorbing the national culture. Cross-culturally invariant scales of individual cultural orientations like CVSCALE are quite helpful to accurately measure and reflect the individual differences in cultural embeddedness.

Second, the role of culture, based on the continuum of individual cultural orientations, can be studied in one country and applied to another. This makes sense because despite cultural differences across nations the impact of cultural values on variables of interest is invariant in most cases. In our study, 80.6 percent of all the pairs of correlations between culture and other variables have the same sign between the USA and Korea although the percentage reduces to 55.8 percent when the stricter formal test for correlational invariance was applied. For example, our study finds that uncertainty avoidance and long-term
orientation are, to the same extent, positively linked to preference for directive leadership in both the USA and Korea. Based on such findings, a multinational corporation can develop one standard manual across countries on how to handle people of high uncertainty avoidance and long-term orientation. This approach is quite different from treating all Koreans as people of high uncertainty avoidance and long-term orientation and all Americans as those of the low level in those cultural orientations. This new way requires firms to conduct an assessment of cultural orientations of people in each of the countries where they are operating. The assessment can be administered, for example, along with personality and work aptitude tests when a new worker is recruited. Based on the worker’s cultural orientations, his or her superior can customize how to motivate him or her to perform better in the workplace, cooperate better with the team, be loyal to the organization, interact better with colleagues and supervisors, be innovative and creative for the projects, and increase his or her own personal life satisfaction and happiness. The corporations can prepare for managers a detailed manual like a step-by-step recipe book for effective management of international workers and consumers.

Third, it needs to be noted that although the simple sign correspondence test found only 19.4 percent of the pairs of correlations did not have the same sign between the samples, the Fisher $z$ transformation test found 44.2 percent of the pairs statistically different from each other. This dissimilarity between the USA and Korea shows that the impact of culture could vary across countries for certain variables, prohibiting a blind use of one country’s cultural study findings in another country. Further investigation is required to reveal the types of variables that show higher similarity or dissimilarity in correlations and the sources of such inconsistency between countries. One relief is, though, that the Fisher $z$ transformation test is too strict to declare an effectively similar correlation as a statistically similar one. For example, the correlation of collectivism to normative organizational commitment was 0.30 for the US sample and 0.46 the Korean sample. And the correlation of long-term orientation to innovativeness was 0.32 for the USA and 0.21 for Korea. The correlation coefficients look different between the countries but both cases deliver the message that the correlations are significantly positive in both countries. Therefore, in cases like these examples, the same policies of handling international consumers can be utilized although the pinpoint precision should be compromised.

Fourth, we did not examine the moderating or mediating roles of individual cultural orientations in this study, instead focusing on their direct correlations with the manager- and consumer-related variables. But if culture is approached as a fixed external variable (Adler, 1983), it must be treated as a moderating variable in all national-, organizational-, team-, and individual-level studies. Trying to check the extent of invariance of the moderating role of culture between related variables across nations should be an equally meaningful endeavor as this study in the future.

There are limitations in our study. Efforts to overcome them could work as a helpful guide for future research. First, we studied only two countries. To generalize our findings, researchers need to examine more countries. Second, the two countries we studied are culturally different, but similar in many aspects, for example, in terms of the political, economic, and education systems, military alliances, tourist visitations to each other, trade, and religion. Future research needs to investigate those countries which are not only culturally dissimilar but also different in other characteristics to one another. Third, we relied on self-report surveys and the correlations, but future research needs to run experiments. For example, the experiments can reveal how people respond to the hypothetical marketing or buying decision-making situations in interaction with their individual cultural orientations. Fourth, we surveyed the manager- and consumer-related variables, which can primarily benefit international marketing research, but future research needs to focus on examining the role of individual cultural orientations, specifically, on COO.
References


An application of CVSCALE


**Further reading**


## Appendix 1

### Table AI. Reliability of CVSCALE reported in selected studies

<table>
<thead>
<tr>
<th>Sources</th>
<th>Countries (sample types)</th>
<th>n</th>
<th>PO</th>
<th>UN</th>
<th>CO</th>
<th>LT</th>
<th>MA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al-Nasser et al. (2014)</td>
<td>Saudi Arabia and Malaysia (students)</td>
<td>414</td>
<td>0.84</td>
<td>0.98</td>
<td>0.91</td>
<td>0.86</td>
<td>0.75</td>
</tr>
<tr>
<td>Baker et al. (2013)</td>
<td>Canada, Japan, and Israel (students)</td>
<td>300</td>
<td>&gt; 0.70</td>
<td>&gt; 0.70</td>
<td>&gt; 0.70</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Blume et al. (2013)</td>
<td>USA (students)</td>
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<td>na</td>
<td>na</td>
<td>0.76</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Badin and Wafa (2013)</td>
<td>Malaysia (workers)</td>
<td>219</td>
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<td>0.83</td>
<td>0.75</td>
<td>na</td>
<td>0.64</td>
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<tr>
<td>Dameyasani and Abraham (2013)</td>
<td>Indonesia (students)</td>
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<td>0.64</td>
<td>0.67</td>
<td>0.66</td>
<td>&lt; 0.60</td>
<td>&lt; 0.60</td>
</tr>
<tr>
<td>de Matos et al. (2012)</td>
<td>Brazil and USA (Students)</td>
<td>260</td>
<td>0.83</td>
<td>0.82</td>
<td>0.83</td>
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<td>na</td>
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<tr>
<td>Doubell (2011)</td>
<td>South Africa (professional females)</td>
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<td>0.42</td>
<td>0.77</td>
<td>0.71</td>
<td>na</td>
<td>0.69</td>
</tr>
<tr>
<td>Furrer and Tjemkes (2013)</td>
<td>The Netherlands and Turkey (managers)</td>
<td>405</td>
<td>&gt; 0.70</td>
<td>&gt; 0.70</td>
<td>&gt; 0.70</td>
<td>&gt; 0.70</td>
<td>&gt; 0.70</td>
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<tr>
<td>Gelbrich et al. (2012)</td>
<td>USA, Germany, China, and Russia (students)</td>
<td>274</td>
<td>&gt; 0.70</td>
<td>&gt; 0.70</td>
<td>&gt; 0.70</td>
<td>na</td>
<td>&gt; 0.70</td>
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<tr>
<td>Goh et al. (2014)</td>
<td>Singapore (nurses)</td>
<td>868</td>
<td>0.63</td>
<td>0.81</td>
<td>0.81</td>
<td>0.85</td>
<td>0.61</td>
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<tr>
<td>Gunkel et al. (2014)</td>
<td>China, Columbia, Germany, India, Italy, Russia, Spain, Turkey, and USA (students)</td>
<td>2,067</td>
<td>0.61</td>
<td>0.68</td>
<td>0.61</td>
<td>0.69</td>
<td>0.63</td>
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<tr>
<td>Hample and Cionea (2012)</td>
<td>USA (students)</td>
<td>598</td>
<td>0.88</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Koe and Majid (2014)</td>
<td>Malaysia (enterprise owner-managers)</td>
<td>404</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>0.93</td>
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<tr>
<td>Krüger (2011)</td>
<td>USA (students)</td>
<td>313</td>
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<td>0.76</td>
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<td>0.81</td>
<td>0.67</td>
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<tr>
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<td>USA (A paid consumer panel)</td>
<td>318</td>
<td>0.69</td>
<td>0.77</td>
<td>0.77</td>
<td>0.66</td>
<td>0.70</td>
</tr>
<tr>
<td>Nath et al. (2014)</td>
<td>USA (A paid consumer panel)</td>
<td>507</td>
<td>0.82</td>
<td>0.77</td>
<td>0.85</td>
<td>0.84</td>
<td>0.80</td>
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<tr>
<td>Nath et al. (2014)</td>
<td>USA (A paid consumer panel)</td>
<td>520</td>
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<td>0.83</td>
<td>0.83</td>
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<tr>
<td>Ning et al. (2015)</td>
<td>Singapore (teachers)</td>
<td>952</td>
<td>0.79</td>
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<tr>
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<td>Nigeria (top and middle managers)</td>
<td>351</td>
<td>&gt; 0.75</td>
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<tr>
<td>Pfajfar (2012)</td>
<td>Slovenia (sellers)</td>
<td>105</td>
<td>0.77</td>
<td>0.75</td>
<td>0.81</td>
<td>0.72</td>
<td>0.66</td>
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<tr>
<td>Pfajfar (2012)</td>
<td>Slovenia (buyers)</td>
<td>101</td>
<td>0.73</td>
<td>0.79</td>
<td>0.79</td>
<td>0.80</td>
<td>0.78</td>
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<tr>
<td>Quinones and Kakabadse (2015)</td>
<td>USA (A consumer panel)</td>
<td>268</td>
<td>na</td>
<td>na</td>
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<td>na</td>
<td>na</td>
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<tr>
<td>Reid (2011)</td>
<td>UAE (A consumer panel)</td>
<td>270</td>
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<td>na</td>
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<tr>
<td>Reid (2011)</td>
<td>UK, Malaysia, and China (students)</td>
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<td>0.87</td>
<td>0.83</td>
<td>0.88</td>
<td>0.73</td>
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<tr>
<td>Rodriguez and Hechanova (2014)</td>
<td>Philippine (IT workers)</td>
<td>245</td>
<td>0.84</td>
<td>0.87</td>
<td>0.82</td>
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<td>Sarma (2014)</td>
<td>North India ($8k – 17k annual incomers)</td>
<td>151</td>
<td>0.78</td>
<td>0.66</td>
<td>0.72</td>
<td>0.73</td>
<td>0.78</td>
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<tr>
<td>Sarma (2014)</td>
<td>South India ($8k – 17k annual incomers)</td>
<td>151</td>
<td>0.60</td>
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<td>0.78</td>
<td>0.55</td>
<td>0.72</td>
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<td>Schumann et al. (2012)</td>
<td>USA, Mexico, Australia, China, Hong Kong, Thailand, India, Germany, The Netherlands, Poland, and Russia (students)</td>
<td>1,910</td>
<td>0.77</td>
<td>0.86</td>
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<td>na</td>
<td>0.83</td>
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<tr>
<td>Warren and Campbell (2013)</td>
<td>India and USA (Amazon.com customers)</td>
<td>296</td>
<td>0.87</td>
<td>0.80</td>
<td>0.86</td>
<td>0.70</td>
<td>0.82</td>
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<tr>
<td>Winterich and Zhang (2014)</td>
<td>USA (students)</td>
<td>139</td>
<td>0.87</td>
<td>na</td>
<td>na</td>
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<td>na</td>
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<tr>
<td>Ye et al. (2013)</td>
<td>Hong Kong (Chinese and Caucasian tourists) (Average)</td>
<td>443</td>
<td>0.74</td>
<td>0.77</td>
<td>0.78</td>
<td>0.76</td>
<td>0.72</td>
</tr>
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</table>

**Note:** na, not available as it was not measured in the study
Appendix 2. Items of manager- and consumer-related constructs

Cultural orientations (CVSCALE developed by Yoo et al., 2011)

1. Power distance
   - P1. People in higher positions should make most decisions without consulting people in lower positions.
   - P2. People in higher positions should not ask the opinions of people in lower positions too frequently.
   - P3. People in higher positions should avoid social interaction with people in lower positions.
   - P4. People in lower positions should not disagree with decisions by people in higher positions.
   - P5. People in higher positions should not delegate important tasks to people in lower positions.

2. Uncertainty avoidance
   - U1. It is important to have instructions spelled out in detail so that I always know what I'm expected to do.
   - U2. It is important to closely follow instructions and procedures.
   - U3. Rules and regulations are important because they inform me of what is expected of me.
   - U4. Standardized work procedures are helpful.
   - U5. Instructions for operations are important.

3. Collectivism
   - C1. Individuals should sacrifice self-interest for the group (either at school or the workplace).
   - C2. Individuals should stick with the group even through difficulties.
   - C3. Group welfare is more important than individual rewards.
   - C4. Group success is more important than individual success.
   - C5. Individuals should only pursue their goals after considering the welfare of the group.
   - C6. Group loyalty should be encouraged even if individual goals suffer.

4. Masculinity
   - M1. It is more important for men to have a professional career than it is for women.
   - M2. Men usually solve problems with logical analysis; women usually solve problems with intuition.
   - M3. Solving difficult problems usually requires an active, forcible approach, which is typical of men.
   - M4. There are some jobs that a man can always do better than a woman.

5. Long-term orientation
   - D1. Careful management of money (Thrift).
   - D2. Going on resolutely in spite of opposition (Persistence).
   - D3. Personal steadiness and stability.
   - D4. Long-term planning.
   - D5. Giving up today’s fun for success in the future.
Preferred leadership styles

(6) *Preference for paternalistic leadership* (Cheng et al., 2004)
- PL1: My supervisor ordinarily shows a kind concern for my comfort.
- PL2: My supervisor takes good care of my family members as well.
- PL3: My supervisor meets my needs according to my personal requests.
- PL4: Beyond work relations, my supervisor expresses concern about my daily life.
- PL5: My supervisor will help me when I’m in an emergency.
- PL6: My supervisor devotes all his/her energy in taking care of me.

(7) *Preference for directive leadership* (Conger and Kanungo, 1994)
- DL1. I like the boss who is an exciting public speaker.
- DL2. I like the boss who appears to be a skillful performer when presenting to a group.
- DL3. I like the boss who is inspirational, able to motivate by articulating effectively the importance of the task.
- DL4. I like the boss who has vision, often brings up ideas about possibilities for the future.
- DL5. I like the boss who provides inspiring strategic and organizational goals.
- DL6. I like the boss who consistently generates new ideas for the future of the company.

(8) *Preference for participative leadership* (Sagie et al., 2002)
- PTL1. I am highly involved in determining the goals and tasks of my subordinates (if any).
- PTL2. I am highly involved in solving problems in my department.
- PTL3. I am highly involved in initiating changes in my department.

Organizational commitment

(9) *Team commitment* (Meyer et al., 1993)
- TC1. I would be very happy to spend the rest of my career with my company.
- TC2. I really feel as if my company’s problems are my own.
- TC3. I feel a strong sense of “belonging” to my company.
- TC4. I do not feel “emotionally attached” to my company.
- TC5. I do not feel like “part of the family” at my company.
- TC6. My company has a great deal of personal meaning for me.

(10) *Normative organizational commitment* (Iverson and Buttigieg, 1999)
- NCS1. I think that people these days move from company to company too much.
- NCS2. Jumping from company to company seems unethical to me.
- NCS3. One of the major reasons I continue to work for my company is that I believe that loyalty is important and therefore I feel a sense of moral obligation to remain.
- NCS4. Things were better in the days when people stayed with one company for most of their careers.

(11) *Continuance commitment* (Baumeister and Leary, 1995)
- CCS1. Right now, staying with my workplace is a matter of necessity as much as desire.
- CCS2. I feel that I have too few options to consider leaving my workplace.
• CCS3. One of the few serious consequences of leaving my workplace would be the scarcity of available alternatives.
• CCS4. It would be very hard for me to leave my workplace right now, even if I wanted to.

(12) *Cooperation in groups* (De Cremer and Tyler, 2007)
• CG1. I willingly accept the decisions made.
• CG2. In a similar situation in the future, I would like to see the situation handled in the same way.
• CG3. I often think my supervisor could have handled a situation in a better way.

**Preference for a compromising conflict management style (Rahim, 1983)**
(13) *Obliging/accommodating*
• AC1. I generally try to satisfy the needs of my supervisor.
• AC2. I usually accommodate the wishes of my supervisor.
• AC3. I give in to the wishes of my supervisor.
• AC4. I usually allow concessions to my supervisor.
• AC5. I often go along with the suggestions of my supervisor.
• AC6. I try to satisfy the expectations of my supervisor.

(14) *Avoiding*
• AV1. I attempt to avoid being “put on the spot” and try to keep my conflict with my supervisor to myself.
• AV2. I usually avoid open discussion of my differences with my supervisor.
• AV3. I try to stay away from disagreement with my supervisor.
• AV4. I avoid an encounter with my supervisor.
• AV5. I try to keep my disagreement with my supervisor to myself in order to avoid hard feelings.
• AV6. I try to avoid unpleasant exchanges with my supervisor.

(15) *Compromising*
• CO1. I try to find a middle course to resolve an impasse.
• CO2. I usually propose a middle ground for breaking deadlocks.
• CO3. I negotiate with my supervisor so that a compromise can be reached.
• CO4. I use “give and take” so that a compromise can be made.

(16) *Dominating/competing*
• DO1. I use my influence to get my ideas accepted.
• DO2. I use my authority to make a decision in my favor.
• DO3. I use my expertise to make a decision in my favor.
• DO4. I am generally firm in pursuing my side of the issue.
• DO5. I sometimes use my power to win a competitive situation.

(17) *Integrating/collaborating/problem-solving*
• ICP1. I try to investigate an issue with my supervisor to find a solution acceptable to us.
• ICP2. I try to integrate my ideas with those of my supervisor to come up with a decision jointly.
ICP3. I try to work with my supervisor to find solutions to a problem which satisfy our expectations.

ICP4. I exchange accurate information with my supervisor to solve a problem together.

ICP5. I try to bring all our concerns out in the open so that the issues can be resolved in the best possible way.

ICP6. I collaborate with my supervisor to come up with decisions acceptable to us.

ICP7. I try to work with my supervisor for a proper understanding of a problem.

**Equality**

(18) *Value of individual equality – Seniority* (Chen, 1995)
- ES1. Salary, promotion, and job rewards should be based on seniority.
- ES2. Salary, promotion, and job rewards should be based on job position (rank).

(19) *Value of individual equality – Equity* (Chen, 1995)
- EE1. Salary, promotion, and job rewards should be based on job-related needs.
- EE2. Salary, promotion, and job rewards should be based on personal needs.
- EE3. Salary, promotion, and job rewards should be based on group equality.
- EE4. Salary, promotion, and job rewards should be based on individual equality.

(20) *Income inequality* (World Value Survey http://www.worldvaluessurvey.org)
- EQ1. Our society needs larger income differences as incentives for individual effort.
- EQ2. Large disparities in income are necessary for prosperity of our society.
- EQ3. Competition is good. It stimulates people to work hard and develop new ideas.
- EQ4. In our society, people should take more responsibility to provide for themselves.

(21) *Gender role equality* (Parboteeah et al., 2008)
- GE1. On the whole, men make better political leaders than women do.
- GE2. If a woman earns more money than her husband, it’s almost certain to cause problems.
- GE3. A university education is more important for a boy than for a girl.
- GE4. When jobs are scarce, men should have more right to a job than women.

**Ethics**

(22) *Utilitarian trait* (Brady and Wheeler, 1996)
- UT1. Innovative.
- UT2. Resourceful.
- UT3. Effective.
- UT4. Influential.
- UT5. Results-oriented.
- UT6. Productive.
- UT7. Winner.

(23) *Formalist trait* (Brady and Wheeler, 1996)
- FO1. Principled.
- FO2. Dependable.
• FO3. Trustworthy.
• FO4. Honest.
• FO5. Noted for integrity.
• FO6. Law abiding.
• FO7. Dutiful.

(24) Unethical behavior perception toward financiers (Kaptein, 2008)
• UF1. Falsifying or manipulating financial reporting information is always unethical.
• UF2. Falsifying time and expense reports is always unethical.
• UF3. Breaching computer, network, or database controls is always unethical.
• UF4. Violating document retention rules is always unethical.
• UF5. Providing inappropriate information to analysts and investors is always unethical.
• UF6. Trading securities based on inside information is always unethical.
• UF7. Engaging in activities that pose conflict of interest is always unethical.

Interpersonal traits

(25) Need for affiliation (Baumeister and Leary, 1995)
• AF1. Having friends is very important.
• AF2. I think that any experience is more significant when it is shared with a friend.

(26) Agreeableness (Goldberg, 1999)
• AG1. I am interested in people.
• AG2. I sympathize with others’ feelings.
• AG3. I have a soft heart.
• AG4. I take time out for others.
• AG5. I feel others’ emotions.
• AG6. I make people feel at ease.

(27) Feedback seeking (Tuckey et al., 2002)
• FS1. It is important to me to obtain useful information about my performance.
• FS2. Receiving feedback about my performance helps me to improve my skills.
• FS3. I would like to obtain more information to let me know how I am performing.
• FS4. I would like to receive more useful information about my performance.

(28) Concern for self’s interests in conflict (Rubin et al., 1994; Sorenson et al., 1999; Straus et al., 1996)
• CS1. It would be extremely important to get the outcome I desired.
• CS2. I am usually concerned about my outcome, benefit.
• CS3. In a conflict with someone, I suggest compromise to an argument.
• CS4. In a conflict with someone, I say both could work out problem.
• CS5. In a conflict with someone, I explain my side of argument.

(29) Concern for others’ interests in conflict (Rubin et al., 1994; Sorenson et al., 1999; Straus et al., 1996)
• COT1. In a conflict with someone, it would be very important that s/he got what s/he wanted.
• COT2. In a conflict with someone, I agree to try his/her solutions.
• COT3. In a conflict with someone, I show care about him/her.
• COT4. In a conflict with someone, I respect his/her feelings.
• COT5. In a conflict with someone, I am concerned about his/her outcome, gain, and loss.

(30) Embarrassability (Modigliani, 1966)
• EM1. If my mother had come to visit me in my workplace and was accompanying me wherever I go, I would be very embarrassed.
• EM2. If I asked someone on crutches if he had suffered a skiing accident and he blushed and replied that, no, he was crippled by polio when he was a child, I would be very embarrassed.
• EM3. If I was a dinner guest and could not eat the main course because I was allergic to it, I would be very embarrassed.

(31) Social avoidance (Jari-Erik and Salmela-Aro, 1999)
• SA1. I often feel uncomfortable in a large group of people.
• SA2. I avoid group situations and prefer to spend my tune alone or with one other person.
• SA3. People usually relate to me negatively.
• SA4. I have a hard time making friends.
• SA5. I am often alone because I am afraid to be among other people.

(32) Neuroticism (Goldberg, 1999)
• NE1. I often feel blue.
• NE2. I fear for the worst.
• NE3. I dislike myself.
• NE4. I am often in a bad mood.
• NE5. I get stressed out easily.

(33) Social desirability (Strahan and Gerbasi, 1972)
• SD1. I always try to practice what I preach.
• SD2. I never resent being asked to return a favor.
• SD3. I have never been annoyed when people expressed ideas very different from my own.
• SD4. I have never deliberately said something that hurt someone’s feelings.

Innovativeness

(34) Innovativeness (Yi et al., 2006)
• IN1. If I heard about an innovative idea, I would look for ways to experiment with it.
• IN2. Among my peers, I am usually the first to try out innovative ideas.
• IN3. I like to experiment with innovative ideas.
• IN4. I actively seek innovative ideas.

(35) Openness to experience (Goldberg, 1999)
• OP1. I believe in the importance of art.
• OP2. I have a vivid imagination.
• OP3. I tend to vote for liberal political candidates.
• OP4. I carry the conversation to a higher level.
• OP5. I enjoy hearing new ideas.

General life styles

(36) Life satisfaction (Clench-Aas et al., 2011)
• SA1. In most ways my life is close to ideal.
• SA2. The conditions of my life are excellent.
• SA3. I am satisfied with my life.
• SA4. So far, I have gotten the important things I want in life.
• SA5. If I could live my life over, I would change almost nothing.

(37) Protestant religiosity (De Jong and Faulkner, 1967)
• RE1. It is impossible for an individual to develop a well-rounded religious life apart from the institutional Christian church.
• RE2. Nonessential businesses should not be open on the Lord's Day or Sabbath.
• RE3. I believe that the world will come to an end according to the will of God.
• RE4. I believe the report of the miracles in the Bible; that is, they occurred through a setting aside of natural laws by a higher power.
• RE5. Biblical truth is higher than any other form of truth.
• RE6. I believe in a Divine God, Creator of the Universe, Who knows my innermost thoughts and feelings, and to Whom one day I shall be accountable.
• RE7. Christianity provides the individual with an interpretation of his existence which could not be discovered by reason alone.
• RE8. The Bible is God's Word and all it says is true.

(38) Family as the most important\(^b\) (Jackson, 1981)
• Which one is the MOST important to you?
  • Associational organization (clubs, groups, and organizations in which you formally or informally participate).
  • Family.
  • Workplace (the work you do for money).
  • Peers (acquaintanceships with people your own age).
  • Recreation (what you do during your leisure time).
  • Religion (your religious orientation).
  • Romance (close, personal relationships).

Notes: All items were measured in a seven-point scale with “Strongly Disagree” (1) to “Strongly Agree” (7). \(^{a}\)Not at All Important” (1) to “Extremely Important” (7); \(^{b}\)1 if Family was selected; otherwise, 0.

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