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Abstract

Purpose – The purpose of this study is to explore patterns of importance ratings of managerial competencies in 22 countries in different regions around the globe, to guide specificity in assessing and developing managers in multiple geographies. Additionally, this study examined the utility of clustering countries based on shared culture, as defined by House *et al.* (2004), to determine whether such clustering aids in interpreting and acting on any differences identified.

Design/methodology/approach – The PROFILOR® for Managers contains 135 behavioral items, grouped into 24 competency scales. The instrument was developed from a review of the management and psychology literatures, exhaustive analysis of a large database (Sevy *et al.*, 1985), job analysis questionnaires and interviews of hundreds of managers representing many functional areas and most major industries.

Findings – Results suggest that clustering countries together for the purpose of providing prescriptive guidance for the development of individuals planning expatriate assignments does not clarify such guidance; in fact, it masks unique differences in competency priorities as measured on a country-by-country basis.

Research limitations/implications – The participants for this study come from mid- to large-size organizations in 22 countries around the world. The organizations represented sought out management consulting services from a large, highly respected private-sector consultancy. As such, these findings are likely to be generalizable to managers from similar organizations. No attempt has been made to generalize these findings to entrepreneurial start-ups, small local organizations or organizations not inclined to seek Western-style management consulting services.

Originality/value – This study is one of the first to examine the effectiveness of the GLOBE clusters as they relate to managerial competencies in multicultural workforces.

Keywords Cross-cultural management, Management, Competencies, Importance ratings, GLOBE Study, Culture clusters

Paper type Research paper

Organizations are becoming increasingly global in terms of where they operate and with whom they interact (Echols and Tsai, 2005). As a result, workforce compositions are becoming culturally diverse (Lloyd and Hartel, 2010), requiring managers to develop competencies for dealing with individuals from various cultural backgrounds (Barkema *et al.*, 2002). The manner in which leaders are able to influence, implement and participate in global initiatives can affect both the short- and long-term success of the organization (Schein, 2010). Thus, there has been increasing interest in examining and

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understanding the cultural impact on leadership attributes most effective in the global context (Dorfman *et al.*, 1997; Hofstede, 1980; House *et al.*, 2004).

One of the most comprehensive studies in cross-cultural research is the GLOBE study (House *et al.*, 2004). The study identified the relative level of nine cultural attributes in 62 countries and formed ten cultural clusters based on cultural similarities identified through exploratory factor analyses (House *et al.*, 2004). Although not without skepticism (Smith, 2006), a number of researchers have utilized the GLOBE cultural dimensions in cross-cultural research examining topics such as leadership effectiveness, self-other agreement and gender effects (Ashkanasy, 2002; Atwater *et al.*, 2009; Gentry *et al.*, 2010a; Gentry and Sparks, 2012). Gentry and Sparks (2012) identified several managerial competencies perceived as important across 40 countries. While observing that culture does matter, their findings provided stronger evidence for the convergence of leadership competencies. Kowske and Anthony (2007) noted that understanding the relative importance of various competencies in differing cultural contexts would be useful to organizations, but found limited research defining such differences.

The purpose of this study was to explore patterns of managerial competency importance ratings, which reflect the competencies most important for managerial success in 22 countries around the globe. Further, this study explored the use of country clusters based on shared culture, as defined by the GLOBE Study (House *et al.*, 2004), to determine whether such clustering aids in interpreting and acting on any competency differences identified.

Human resource development (HRD) interventions aiming to develop personnel start by assessing competencies associated with effective performance in a given context (Werner and DeSimone, 2012). Various strategies or measures can be applied to identify specific competencies that are frequently employed, used under critical circumstances, and important to the overall job performance of individuals at different levels and the organization (Rothwell and Lindholm, 1999). The results of this study would have important implications for research and practice, as the competency priorities revealed in our analyses might be used to guide specificity in assessing and developing managers in multiple geographies. In addition, we were interested in seeing whether clustering the countries might add clarity and specificity to any prescriptive recommendations revealed in this analysis. Thus, this study contributes to the knowledge base of cross-cultural and HRD research, and the utility of cultural clusters, in this case the GLOBE study.

We first review the relevant literature in competency modeling and importance ratings; how this relates to cross-cultural leadership research, research and perspectives regarding cultural clusters; and the utility of the GLOBE cluster. Then, we describe the research methods and analyses conducted, followed by discussion of our findings and implications for research and practice. Limitations and areas for future research are also discussed.

Review of literature

To avoid wasting significant resources, organizations need to closely assess their management and leadership development processes to improve performance and achieve both individual- and organizational-level benefits (Naquin and Holton, 2006). It has been estimated that unproductive or counter-productive managerial behavior could cost organizations millions of dollars (Finkelstein, 2004), and to prevent such

consequences and avoid costly failures, organizations invest in various resources to assess and develop competent managers to increase the likelihood of success (Fleenor *et al.*, 2010).

Competencies are defined as clusters of related areas of knowledge, abilities and behaviors (Boyatzis, 1982; Soderquist *et al.*, 2010). Competency modeling allows organizations to identify the domains of knowledge, skill, ability and desired behavior that lead to increased leadership effectiveness (Lucia and Lepsinger, 1999; Hollenbeck *et al.*, 2006; Sparks and Gentry, 2008) and ultimately to the accomplishment an organization's strategic objectives (Rothwell and Lindholm, 1999; Le Deist and Winterton, 2005; Lucia and Lepsinger, 1999).

Competency models support essential human resource (HR) functions such as selection (Stevens, 2013), performance appraisal (Lucia and Lepsinger, 1999), assessment (Chen and Naquin, 2006; Melancon and Williams, 2006), training and development (Rothwell and Lindholm, 1999), leadership development (Naquin and Holton, 2006), succession planning (Sparks and Gentry, 2008) and integration of these activities (Batt, 2002; Gagani *et al.*, 2006). Organizations develop competency models to identify effective leadership behaviors (Lucia and Lepsinger, 1999; Sparks and Gentry, 2008), and when properly designed and implemented, such models can provide a basis for competitive advantage in a given organization (Soderquist *et al.*, 2010; Martone, 2003; Naquin and Holton, 2006).

A common method of deploying a competency model (e.g. for managerial positions) within an organization is through multisource feedback using the selected competencies. Multisource (i.e. 360-degree) feedback instruments are frequently used for employee development, performance feedback and other purposes (Atwater *et al.*, 2007). Organizations often utilize multisource feedback instruments in providing specific behavioral feedback to employees at various levels, especially for those who participate in developmental programs, and the reporting and analysis of managerial behavior is considered crucial for development initiatives (Smither *et al.*, 2005). This is evident from managerial developmental initiatives developed and utilized by many Fortune 500 and Global 1,000 organizations (Gentry *et al.*, 2010a). There has also been increased interest in the utilization of multi-source feedback interventions among researchers in the academic field, and more than 100 articles have been published in academic and practitioner journals since 1990 (Morgeson *et al.*, 2005).

Competency modeling and importance ratings

Competency models are developed and utilized by organizations and researchers to increase leadership effectiveness in a given industry (Chung-Herrera *et al.*, 2003; Lucia and Lepsinger, 1999). Although managerial competency models hold certain commonalities, no single competency model best predicts effective leadership for all contexts. Variations often occur with regard to importance ratings of competencies, and specific competencies that contribute to leadership success vary among managerial levels and job functions within an organization (Sparks and Gentry, 2008).

Research comparing competency priorities across industries, sectors, job classifications and geographies is limited in scope and has yielded inconsistent results. For example, Frankel *et al.* (2006) found that the education industry required a different type of leadership from those of publicly traded companies (i.e. private sector) as educational institutions are usually faced with industry-specific challenges such as

interfering roles of political stakeholders and community demands. A recent study conducted by Mathews *et al.* (2015) supports these findings, in that specific leadership competencies developed and used in private sector industries (e.g. banking/finance, retail, manufacturing and health care) differed in terms of importance from those in other industries or sectors (e.g. education and government) and may not be applicable to educational institutions. Results based on a multi-source feedback instrument of 135 leader behavior items showed that the importance ratings for private sector organizations were higher in leadership competencies such as drive for results, manage execution and analyze issues. Competencies such as establish plans, listen to others and build relationships were rated as more important for educational institutions.

On the other hand, other studies have found significant commonalities in competencies among different industries and across managerial job classifications. Cragg and Spurgeon (2007) found that leadership competencies largely based on the private sector could be applied to the not-for-profit sector, and Sparks and Gentry (2008) found that importance ratings of certain competencies were fairly consistent across different industries and sectors including manufacturing, finance, health care, transportation, wholesale/retail trade, private and public nonprofit. Moreover, a recent study conducted by Halliburton *et al.* (2013) observed how managers of specific job functions rated the importance of 24 competencies and found that there was substantial commonality in the competencies rated highest and lowest in importance. All job functions rated *act with integrity* and *use sound judgment* as the top two important competencies in leadership development, and most job functions included *technical/functional expertise* and *manage disagreements* in their bottom five importance ratings of competencies.

Competency modeling and cross-cultural research

Because of its focus on increased international trade, cross-border movement of funds, transfer of human talent and technology, globalization has resulted in an increased number of organizations having business interests in more than one country. As a result, these organizations will require individuals to be both aware of the global business environment and competent working with people from different cultures (Chong, 2008). Thus, competency models are often utilized by leadership development professionals in creating culture-related interventions at multinational organizations. Such models not only present the required knowledge, skills and abilities for a specific job but also reflect person–environment (P + E) fit, industry characteristics, organizational culture and the national culture of the host country.

Some hold the view that globalization has stimulated the convergence of effective leadership competencies across national boundaries (Bass, 1997; Gentry and Sparks, 2012; House and Aditya, 1997). Other researchers have argued for a global model that reflects both universal leadership qualities and the need to tailor some competencies, as they are used in different countries (Jokinen, 2005; Kim and McLean, 2015).

In investigating managerial competencies most effective for managers in the USA and seven European countries, Robie *et al.* (2001) found support for universality of leadership dimensions. The authors examined 24 competencies as measured in more than 8,000 managers using a multisource feedback instrument, and found two managerial skill dimensions, "drive for results" and "analyze issues", consistently endorsed irrespective of national culture. Their findings suggested that effective

leadership, as perceived as being a "smart and motivated manager", may be similarly endorsed across different national cultures. Hamlin (2005) conducted a qualitative comparative analysis and compared studies of managerial leader effectiveness in the UK and the USA. The study compared and contrasted several criteria of two leadership models developed from empirical data and showed that a majority of behavioral competencies in the two models overlapped and strongly aligned. Specifically, the commonality was found at both the criteria/competency level and the behavioral level. These results challenged long-held assumptions of contingent- and culture-specific leadership behaviors and supported the existence of at least some universal managerial competencies for effective leadership.

Adopting four cultural dimensions from the GLOBE framework, Gentry and Sparks (2012) investigated the convergence/divergence of leadership competencies with a sample of 9,942 managers across 40 countries. The study focused on how national cultural differences affected the endorsement of leadership competencies most important for success. Their multilevel analysis found support for cross-national convergence in the endorsement of leadership competencies such as resourcefulness, change management and building and mending relationships, a lack of cross-cultural support for balancing personal life and work. Further, Kim and McLean (2015), in a comprehensive review of the global leadership literature, proposed an integrative framework for global leadership competency. The model, consisting of three levels (core traits, personal character and ability) and four dimensions (intercultural, interpersonal, global business and global organizational), aims to support leaders and organizations in developing leadership competency models most effective for their industry, culture and country.

Competency models developed for a specific job function may often be similar but not identical among organizations and countries, as competencies can be either facilitated or hindered in different national cultures (Triandis, 1982). This makes it difficult for practitioners or researchers to conduct cross-cultural research on the relative importance of competencies across countries and national cultures. Moreover, currently used competency models and the methods of developing those models have been rooted in the West (Rothwell and Lindholm, 1999), and, for example, the cross-cultural application of such models in Asian countries may cause culture-specific concerns.

Kowske and Anthony (2007) compared competency importance on mid-level leadership skills across 12 countries using multisource feedback data. The authors found that only two specific leadership competencies (*Analyze Issues* and *Foster Teamwork*) among 24 were similar in terms of importance across different managerial locations, suggesting that the definition of leadership or leadership roles varies because of cultural differences. In another study comparing 600 MBA graduates from Thailand and Hong Kong on their importance ratings of managerial competencies, Thai graduates rated ability to *build interpersonal relationships with others* and the ability to *adapt to new situations* higher than their counterparts in Hong Kong. Those two highly rated competencies, ability to *solve problems*, ability to *make decisions* and *effective oral communication skills* were the top five in Thailand. On the other hand, the Hong Kong graduates rated ability to *solve problems*, ability to *build interpersonal relationships with others*, ability to *plan and organize*, ability to *analyze problems* and ability to *make decisions* as their highest rated competencies (Sudsakorn and Swierczek, 2009).

Moreover, a study by Chong (2013), comparing importance ratings of competencies associated with career advancement between British and Singaporean managers in the private sector, found significantly differing results. It was found that while British managers valued *risk-taking* and *decisiveness*, Singaporean managers rated competencies such as *analytical thinking, oral expression, oral presentation* and *written communication* as most important.

Understanding differences in terms of what competencies and expectations members of organizations in various countries have is critical to managerial success in international business endeavors. Numerous attempts to group countries into clusters that share similar cultures have been undertaken in hopes of providing valuable insight into the competencies required to be successful in various regions of the globe.

Culture clusters

Much has been written regarding the utility of grouping counties based on shared attributes. In his study of history, Toynbee (1955) discussed civilizations and cultural groupings and provided insight in to how both civilizations and boundaries have changed over time. Huntington (1993) examined culture and civilizations and suggested that civilizations represent the highest level of cultural groupings of people and provide the broadest level of cultural identity. Further, he asserted that civilizations share common elements such as language, history, religion and customs. Jalali (2003) discussed how cultures serve as both elements of solidarity and differentiators within human groups.

Gupta *et al.* (2002) found that clusters provided important information regarding societal variation and were a useful way to summarize intercultural similarities and intercultural differences. In their article examining work values and motivation in various geographical regions, Ronen *et al.* (1979) discussed cultural regions and asserted that regions are partitions of space whose minimal properties are boundedness and connectedness. Further, they noted that within a single region, one is permitted stronger inferences about cultural similarities among the points within that region. Kale (1995) used Hofstede's cultural dimensions (uncertainty avoidance, masculinity, power distance and individualism) in his study grouping consumers in 17 Western European nations, and found that clustering along four cultural dimensions yields three relatively homogenous clusters. Specifically, he found these nations can be classified as having medium-to-high levels of individualism, medium-to-strong levels of uncertainty avoidance, varying degrees of masculinity and small-to-medium power distances.

The grouping of countries along the lines of shared cultural attributes has been done for many reasons. This paper pursued one of the most common reasons, to identify a differential set of competencies required for managers to be successful when working in locations where culture and customs are different from their home country. Two of the largest studies, Hofstede's groundbreaking work and the GLOBE study, examined national culture and clustered countries specifically for the purpose of providing valuable guidance to individuals seeking to work effectively across such differences.

Hofstede (1980) administered one of the first large-scale, culture–cluster studies through an analysis of IBM employee data collected in 40 countries. Subsequently, studies have explored cross-cultural differences with some authors questioning whether coherent cultural zones exist (Inglehart, 2008) while others, such as the GLOBE Study (House *et al.*, 2004), promote the utility of identified clusters.

In the GLOBE Study, the largest and most comprehensive study analyzing cultural differences, ten cultural clusters were constructed based on cultural similarities identified through exploratory factor analyses (House *et al.*, 2004). The clusters are:

(1) Anglo Cultures (e.g. England, Australia, USA);
(2) Latin Europe (e.g. Spain, France);
(3) Nordic Europe (e.g. Finland, Denmark);
(4) Germanic Europe (e.g. Austria, Germany);
(5) Eastern Europe (e.g. Russia, Hungary);
(6) Latin America (e.g. Brazil, Argentina);
(7) Sub-Sahara Africa (e.g. Nigeria, Namibia);
(8) Arab (e.g. Morocco, Turkey);
(9) South Asia (e.g. Thailand, India); and
(10) Confucian Asia (e.g. Singapore, South Korea, China) (Gupta *et al.*, 2002).

These ten cultural clusters are developed based on cultural similarity (Gupta *et al.*, 2002). Similar cultures were combined into clusters; dissimilar cultures were not clustered.

Utility of GLOBE clusters

Questions remain regarding the utility of clustering countries according to cultural similarities as doing so may obfuscate discrete local nuances regarding necessary managerial competencies. Some of these questions are centered around inconsistency in the measurement of culture. For instance, some believe that, at best, civilizations, and by default, culture, are very fluid and are all but certain to change over time. Huntington (1993) contends that civilizations are dynamic entities as they rise and fall, divide and merge. He further submits that some civilizations disappear altogether and become buried in the sands of time.

Other criticisms of the GLOBE clustering methodology are based on its measurement approach and its ability to measure culture with accuracy. McSweeney (2013) noted that national cultures are made and remade through exchange, imitation, intersection, travel and trade to name a few, making national culture difficult to measure. Huntington (1993) asserted that as interactions between people of different civilizations increase, these interactions intensify awareness of both similarities and differences within civilizations. Other concerns regarding the GLOBE clusters and culture clustering in general are centered on forces that impact culture, and can contribute to cultural change. Inglehart and Baker (2000) asserted that economic development had systematic and predictable cultural, social and political consequences. Further, they found that economic development seems to have a powerful impact on cultural values as the value systems of rich countries differ systematically from those of poor countries. When creating cultural zones based on per capita gross national product (GNP), they found that countries whose per capita GNP exceeds $15,000 create an economic zone that cuts across the boundaries of Protestant, ex-Communist, Confucian, Catholic and English-speaking cultural zones (Inglehart and Baker, 2000). This suggests that economic development has the ability to change, or at least significantly modify, national cultures.

Another problem in clustering is with the dimensions used to create clusters themselves. For example, in their article examining the dimensions of national culture,

Maleki and De Jong (2013) asserted that the status quo in the development of research on cultural dimensions can now be qualified by two words: enriched and messy. Further, they noted that some scholars have attempted to bring the most likely common denominators of the dimensions together in an overview, but these attempts were based on *ad hoc* considerations and common sense.

Additionally, the GLOBE Study method of determining culture may be problematic. While most agree that national culture contains individual, societal and national (governmental) elements, the GLOBE Study collected data by asking individuals to describe only societal values. When discussing the GLOBE methodology, Maleki and De Jong (2013, p. 113) stated: "the GLOBE methodology used to measure cultural dimensions entails two major peculiarities". They suggested that to resolve the logical problems inherent in aggregation of individual-level self-reports, GLOBE respondents were asked to give society ratings only, potentially missing valuable information at the individual level.

Schwartz (1999) argued that individual value priorities are a mixture of shared culture and of unique personal experience. Chong (2008) asserted that although culture develops within a society, nations and organizations often consist of groups with different cultural backgrounds. By asking individuals to give ratings based on societal values only, the data provided fail to capture much needed individual-level cultural data that can be useful to both managers working in foreign countries and researchers studying culture. Finally, Taras *et al.* (2010) noted a disconnect in the GLOBE Study findings; they reported significant negative correlations between values and practices, which do not support a value-practice consistency hypothesis.

This paper examined differences in managerial competency importance ratings and explored the utility of GLOBE country clusters in interpreting differences revealed and offering prescriptive guidance for the development of managers for expatriate assignments. Specifically, this study explored patterns of importance ratings of 24 managerial competencies in 22 countries in different regions around the globe. We examined the utility of clustering countries based on shared culture, as defined by House *et al.* (2004), to determine whether such clustering aids in interpreting and acting on any differences identified.

Research questions are as follows:

RQ1. To what extent do importance ratings of managerial competencies differ by country?

RQ2. Does combining countries into clusters based on common values (e.g. GLOBE) improve the utility and interpretability of the findings?

Instrument (PROFILER)

The multisource instrument used in this study, *The PROFILOR® for Managers,* contains 135 behavioral items, grouped into 24 competency scales (PDI Ninth House, 2004; See Appendix 1). *The PROFILOR® for Managers* was designed to represent the domain of behaviors associated with effective management (Hezlett *et al.*, 2006). The instrument was developed from a review of the management and psychology literatures, exhaustive analysis of a large database (Sevy *et al.*, 1985), job analysis questionnaires and interviews of hundreds of managers, representing many functional areas and most major industries. From this broad survey of managerial competencies, only those competencies consistently identified as important were retained in the final model.

Median internal consistency reliabilities for *PROFILOR® for Managers* scales were in the $\alpha = 0.83$ range from 0.75 for the self-perspective to 0.90 for the direct report supervisor's rating perspective (Hezlett *et al.*, 2006). Data were gathered from 2003 through 2011.

Only direct supervisors' ratings were used for this study. Competency importance was rated on a seven-point Likert-type scale, with scale anchors ranging from *important* through *very important* to *critically important*. Given the process used to develop this competency model, the instrument authors opted to include only this gradation of positive importance; there is no "unimportant" ranking option in the instrument. Importance ratings associated with the 24 managerial competencies assessed through this questionnaire were used as a proxy for declared leadership priorities. Countries included in the analyses were Australia, Brazil, Canada, China, Denmark, France, Germany, Greece, Hungary, India, Italy, Japan, South Korea, Mexico, Netherlands, Singapore, Spain, Sweden, Thailand, Turkey, the UK and the USA.

Method

The *PROFILER* for Managers® is a multisource feedback questionnaire administered around the world (PDI Ninth House, 2004). The countries in which the questionnaire was completed were used as grouping variables. Only countries that were included in both the GLOBE Study and available in the *PROFILER* for Managers® database were included in this study. This left the 22 countries listed above. These countries allowed for at least partial representation of nine of the ten GLOBE clusters. Within each country, known expatriates were removed from the analyses, as their responses might have represented some combination of home culture and local culture, which could confuse the analysis. These known expatriates represented 5.2 per cent of the total sample. The remaining sample size was 74,931 managers.

Results

All confirmatory factor analyses were run using LISREL 9.1 on mean importance ratings for competencies, as rated by the managers. Root mean square error of approximation (RMSEA) and comparative fit index (CFI) were used to determine adequate model fit. Cutoffs suggested by Hu and Bentler (1999) to display adequate model fit are less than 0.06 for RMSEA and greater than 0.95 for CFI.

The initial analysis was a country-by-country examination of correlations among mean importance ratings for each country pair. The observed correlations among the mean importance ratings across countries used for analyses can be found in Table I. The correlations ranged from a low of 0.39 to a high of 0.99. Next, a confirmatory factor analysis was performed, using the GLOBE country clusters. This analysis was found to have a very poor model fit ($RMSEA = 0.350$, $CFI = 0.850$, $SRMR = 0.333$; see Figure A2). The covariances among the GLOBE clusters can be found in Table II. For the null model, which clustered all countries into one factor, the goodness-of-fit statistics indicate that the null model contains substantial information that was not accessed ($RMSEA = 0.343$, $CFI = 0.847$, $SRMR = 0.061$; Figure A1), and also displayed generally poor model fit. However, the null model in general displayed better model fit than the GLOBE cluster model. This suggests that country clusters using the GLOBE model did not add explanatory utility in making sense of cultural similarities and differences.

Because it has been argued that the importance of some competencies is generally agreed upon across countries while others are more variable across locations, standard

Table I.
Observed correlations of mean importance ratings among the countries explored

	AU	BR	CA	CN	DK	FR	DE	GR	HU	IN	IT	JP	KR	MX	NL	SG	ES	SE	TH	TR	GB	US
AU	1																					
BR	0.86	1																				
CA	0.97	0.84	1																			
CN	0.84	0.88	0.78	1																		
DK	0.82	0.88	0.76	0.76	1																	
FR	0.82	0.75	0.82	0.72	0.74	1																
DE	0.75	0.69	0.75	0.64	0.71	0.80	1															
GR	0.85	0.92	0.83	0.83	0.85	0.68	0.71	1														
HU	0.78	0.81	0.73	0.84	0.77	0.60	0.68	0.87	1													
IN	0.88	0.89	0.85	0.87	0.78	0.73	0.71	0.84	0.84	1												
IT	0.89	0.83	0.86	0.83	0.86	0.86	0.75	0.79	0.73	0.83	1											
JP	0.79	0.70	0.80	0.65	0.69	0.81	0.65	0.87	0.53	0.76	0.77	1										
KR	0.70	0.76	0.68	0.81	0.65	0.58	0.39	0.67	0.71	0.72	0.66	0.71	1									
MX	0.79	0.91	0.75	0.83	0.82	0.72	0.55	0.79	0.70	0.82	0.82	0.73	0.72	1								
NL	0.91	0.81	0.89	0.71	0.83	0.83	0.83	0.80	0.72	0.80	0.83	0.78	0.58	0.71	1							
SG	0.91	0.88	0.88	0.88	0.78	0.78	0.66	0.85	0.87	0.94	0.87	0.74	0.74	0.86	0.83	1						
ES	0.79	0.83	0.78	0.76	0.76	0.77	0.63	0.73	0.61	0.75	0.86	0.77	0.65	0.89	0.67	0.78	1					
SE	0.84	0.82	0.81	0.68	0.92	0.81	0.74	0.81	0.66	0.75	0.84	0.74	0.54	0.78	0.88	0.76	0.76	1				
TH	0.75	0.85	0.73	0.82	0.70	0.61	0.53	0.82	0.74	0.81	0.63	0.61	0.81	0.68	0.63	0.75	0.62	0.59	1			
TR	0.82	0.86	0.76	0.87	0.81	0.71	0.62	0.86	0.89	0.87	0.83	0.64	0.82	0.78	0.71	0.89	0.74	0.68	0.83	1		
GB	0.98	0.84	0.95	0.81	0.84	0.83	0.79	0.87	0.80	0.87	0.89	0.77	0.65	0.75	0.94	0.90	0.77	0.87	0.72	0.82	1	
US	0.97	0.83	0.99	0.78	0.76	0.80	0.73	0.84	0.74	0.85	0.86	0.78	0.68	0.77	0.89	0.90	0.77	0.80	0.72	0.78	0.95	1

Notes: Australia; Brazil; Canada; China; Denmark; France; Germany; Greece; Hungary; India; Italy; Japan; South Korea; Mexico; The Netherlands; Singapore; Spain; Sweden; Thailand; Turkey; UK; USA

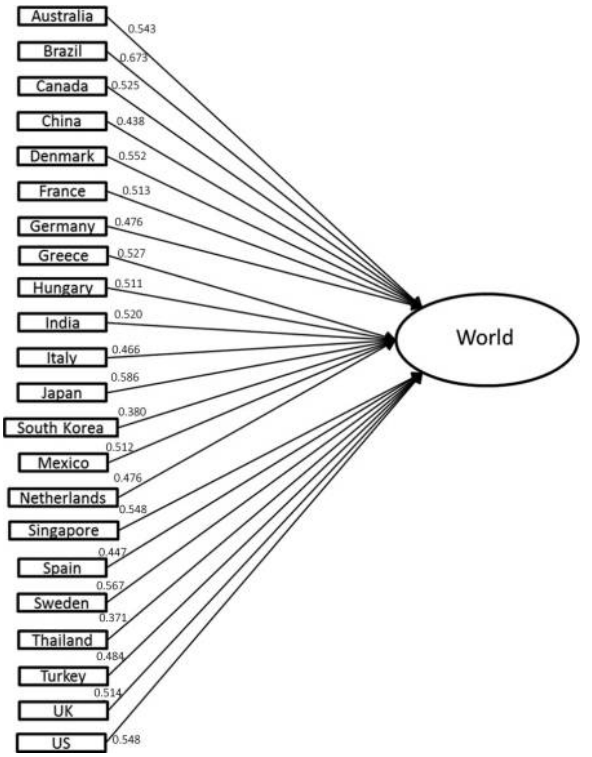

Figure A1.
Full model for the one factor (null model)

deviations of the mean importance ratings for the countries were examined. A natural break in standard deviations had 11 competencies classified as more variable. Using only these 11 competencies, confirmatory factor analyses were run on the replicated GLOBE clusters (*RMSEA* = 0.374, *CFI* = 0.825, *SRMR* = 0.212; see Figure A4), as well as the null model (*RMSEA* = 0.382, *CFI* = 0.780, *SRMR* = 0.077; see Figure A3). These were slightly *worse* than the previous models that used all the competencies, with a marginally larger RMSEA, and a marginally smaller CFI.

Discussion

An examination of Figure A1 factor loadings indicates that although there are some elements of similarity, the competency priorities are far from identical. Clearly there are some countries that are, in fact, similar to other countries, and many countries that are substantially different from others. For example, in comparing South Korea and Denmark (not in the same GLOBE country clusters), the correlation is 0.39. In comparing the USA and Canada (both in the Anglo cluster), the correlation is 0.99. In comparing Japan and South Korea (both GLOBE Confucian cluster countries), the correlation is 0.71 (Table I). In comparing Spain and France (both GLOBE Latin Europe cluster countries), the correlation is 0.77. In these last two comparisons, the correlations would indicate that while there are some similarities, the competency priorities in each of these paired

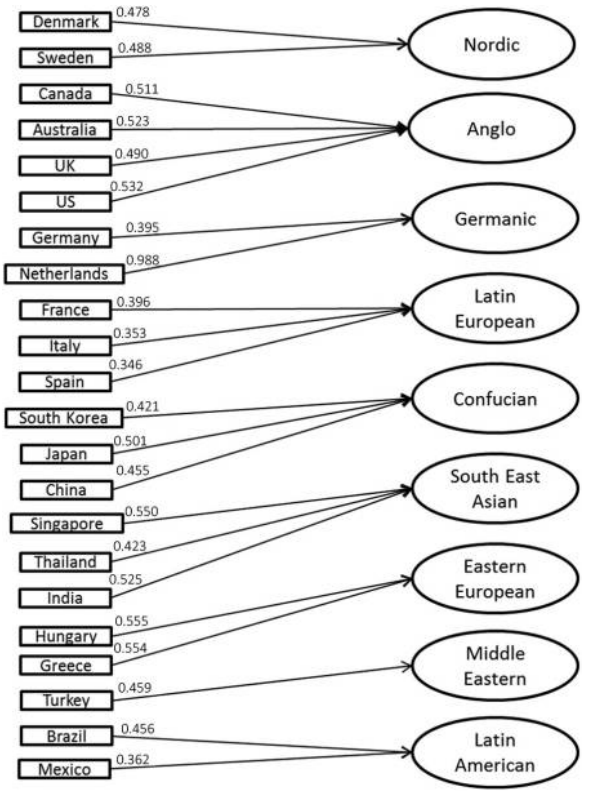

Figure A2.
Full model for the GLOBE model

	1	2	3	4	5	6	7	8	9
Nordic (1)	1.000								
Anglo (2)	0.783	1.000							
Germanic (3)	0.956	0.910	1.000						
Latin American (4)	0.958	0.831	0.956	1.000					
Eastern European (5)	0.845	0.912	0.821	0.786	1.000				
Middle Eastern (6)	0.898	1.080	0.882	0.945	1.188	–			
Confucian (7)	0.672	0.859	0.659	0.757	0.912	1.114	1.000		
South East Asian (8)	0.755	0.966	0.805	0.803	0.987	1.194	0.946	1.000	
Latin American (9)	1.053	0.738	0.834	1.050	0.937	0.990	0.890	0.845	1.000

Table II.
Covariances among the latent variables in the GLOBE model

comparisons are not identical. In the first pair, they share about half of the variance in common, and in the second pair, they share just over half of their variance in common.

In analyzing the factor loadings in Figure A2, where country competency priorities are clustered as described by House *et al.* (2004), in the cases of the Anglo cluster and the Eastern European clusters, we see individual country factor loadings around 0.5. None of the other country clusters had all of their factor loadings greater than 0.5. For example, in the Latin European cluster, the factor loading for France was 0.396, and the

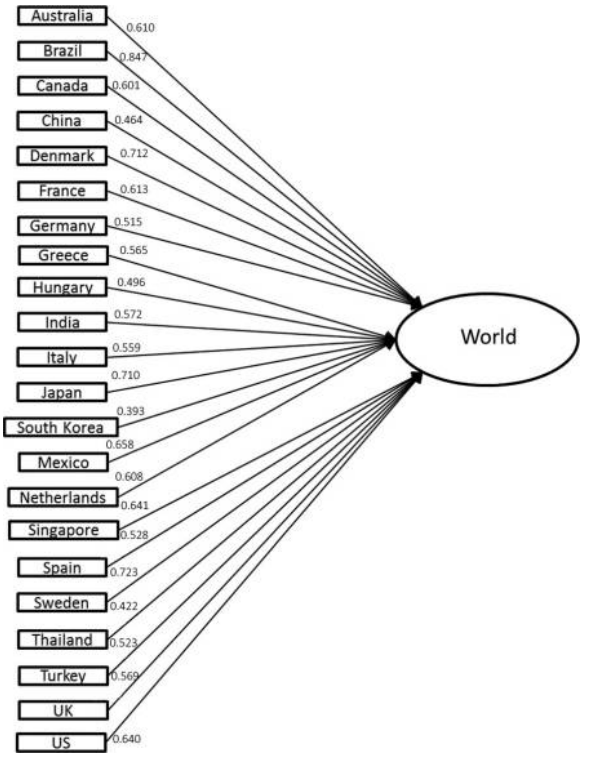

Figure A3.
Reduced model for the one factor (null) model

factor loading for Spain was 0.346. In the Confucian cluster, the factor loading for China was 0.455, and the factor loading for South Korea was 0.421. These examples illustrate the lack of consistency of competency priorities of countries in the same GLOBE cluster.

Results of the analyses described above suggest that clustering countries together for the purpose of providing prescriptive guidance for the development of individuals planning expatriate assignments does not clarify such guidance; in fact, it masks unique differences in competency priorities as measured on a country-by-country basis. The results of the factor analytic procedure used in this study did not support clustering as described in the GLOBE study. Instead, both confirmatory models using GLOBE clusters and the models that treat all countries as the same were not helpful. The GLOBE clusters were less effective in interpreting competency importance differences than not clustering countries and viewing them independently. Therefore, regarding our *RQ2* (*Does combining countries into clusters based on common cultural values using GLOBE clusters improve the utility and interpretability of the findings?*), the results of this study suggest clustering countries based on GLOBE results is not helpful.

Previous studies have discussed the limitations inherent to GLOBE clusters, which were extensively based on researcher judgment (Ketchen and Shook, 1996). Arguments against the use of culture clusters often suggest that clustering techniques do not reflect a theoretical basis, but instead only represent arbitrary or superficial groupings with limited empirical support.

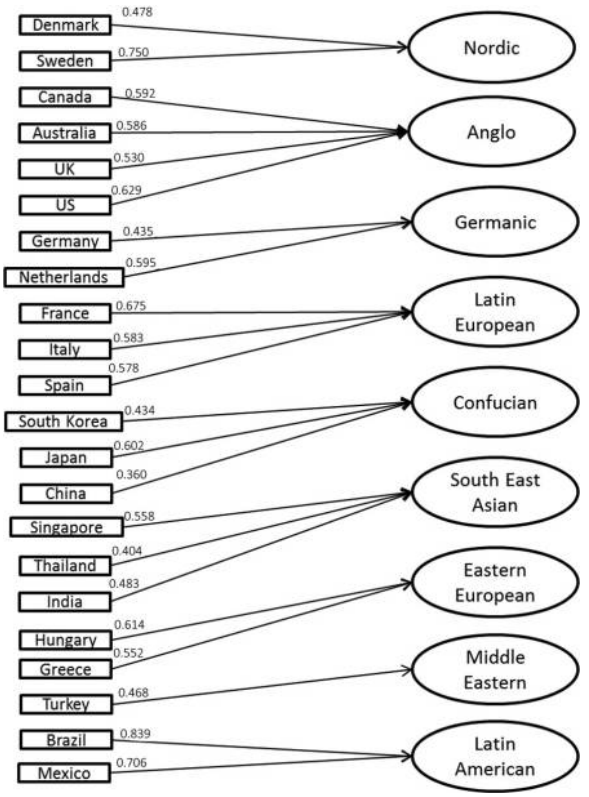

Figure A4.
Reduced model for the GLOBE model

Implications for theory and practice

The implications of these findings for practitioners within the field of HRD are potentially very helpful. Clustering cultures can be convenient for practitioners, as it reduces the number of cultural variables, allows for more generalization and simplifies cross-cultural training. However, clustering countries as proposed by GLOBE does not yield useful priorities to focus development. There are specific implications for practices such as cross-cultural training, expatriate preparation and the cross-cultural use of competency-based practices. For example, many organizations use cross-cultural training that applies to multiple cultures. HRD practitioners whose work focuses on serving individuals identified for expatriate assignments should examine individual country-specific priorities when planning training or individual coaching in advance of such moves. The findings of this study suggest that HRD practitioners would be well-served by tailoring the development strategies for managers in different countries according to the competency priorities found in that country. This would prepare managers to fully meet the expectations of others in the organization in that locale.

The findings presented in this study contribute to a lively on-going point–counterpoint debate in the literature regarding competency commonality versus culturally unique differences in competency priorities. These results supported the assertion that within the genre of managerial competencies, countries should be viewed

independently and treated differently, even when they share some cultural similarities. It is interesting to note that the advent of large-sample statistics made it mathematically possible to cluster cultures together, while increased access to large-sample databases has made it possible to question empirically the utility of creating such clusters.

The method of analysis used in this study was designed to test the extent to which well-published findings in support of clustering cultures could be replicated using alternate data. As covered in the results section, no evidence was found in these data supporting the use of culture clusters. Therefore, a specific implication of this study directed towards scholars is the need for more comprehensive research on the validity of culture clusters. A litany of previous studies has rightly questioned the validity and utility of GLOBE study clusters (Chong, 2008; Maleki and De Jong, 2013; Taras *et al.*, 2010); this study adds convergent validity to those questions. The authors of this study do not assert that the GLOBE study lacks validity. Rather, we are asserting that the culture clusters articulated in the GLOBE study are not useful in understanding the relative importance of managerial competencies across countries.

Limitations

Limitations for our study should be discussed. We used direct supervisors' ratings (i.e. boss ratings) of 24 managerial competencies in a multisource instrument to examine the utility of the GLOBE cultural clusters. Research suggests that boss ratings may be most effective in measuring an individual's performance (Conway, 2000), and previous studies have used similar approaches (Robie *et al.*, 2001). However, future studies may explore other rater perspectives (i.e. subordinates', peers' and managers' self-ratings), as it may provide different and/or meaningful results for investigating managerial effectiveness in organizations (Hoffman *et al.*, 2010).

Another limitation of this study is its empirical nature. While many scholars have examined the validity and utility of clustering countries for the purposes of providing guidance for leadership development and cross-cultural management (House *et al.*, 2004), opportunities to qualitatively examine cross-cultural managerial behaviors remain. Our contention is that qualitative inquiry can supplement empirical findings by providing individual-level data related to experience. For example, in their mixed-method examination of the challenges of 763 managers from seven countries, Gentry *et al.* (2013), qualitative results found, in part, that more than half of the challenges managers faced and requisite managerial competences were more similar than dissimilar across countries and regions. Another study by Belhoste and Monin (2013) qualitatively examined the construction of differences in expatriate managers in cross-cultural contexts and noted that empirical studies related to cross-cultural management have not provided the intended results. Further, the authors asserted that the mere existence of work interactions between diverse individuals does not necessarily lead to perceptions of differences from a cultural standpoint. Such assertions support the need for further investigation utilizing diverse evidence, multiple sources of data and different research methods such as qualitative inquiry or mixed-methods approaches (Leung and Van De Vijver, 2008).

Lastly, an additional limitation for our study would be the generalizability and/or transferability of results. One of the major concerns in leadership research is that individual researchers examine different competencies or subsets of leadership behaviors adding complexity to compare or contrast findings (Kim and Yukl, 1995). We

utilized archival data consisting of 24 competency scales as measured using a multisource instrument carefully developed to reflect behaviors associated with effective management practices (PDI Ninth House, 2004). The organizations represented sought out management consulting services from a large, private-sector consultancy. The subjects for this study come from mid- to large-size organizations in 22 countries around the world. As such, these findings are likely to be generalizable to managers from similar organizations. No attempt has been made to generalize these findings to entrepreneurial start-ups, small local organizations or organizations not inclined to seek Western-style management consulting services.

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Appendix 1.

List of 24 managerial competencies examined in this study:

(1) Analyze Issues
(2) Use Sound Judgment
(3) Establish Plans
(4) Manage Execution
(5) Provide Direction
(6) Lead Courageously
(7) Influence Others
(8) Foster Teamwork
(9) Motivate Others
(10) Coach and Develop
(11) Champion Change
(12) Build Relationships
(13) Display Organizational Savvy
(14) Manage Disagreements
(15) Speak Effectively
(16) Foster Open Communication
(17) Listen to Others
(18) Drive for Results
(19) Show Work Commitment
(20) Act with Integrity
(21) Demonstrate Adaptability
(22) Develop Oneself
(23) Use Tech./Functional Expertise
(24) Know the Business

Source: The *PROFILOR® for Managers* (PDI Ninth House, 2004).

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