Culture in international business research: A bibliometric study in four top IB journals

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ABSTRACT

National cultures and cultural differences provide a crucial component of the context of international business (IB) operations and research. Over the past three decades a number of studies have emerged providing taxonomies of cultural dimensions and facets that have been useful for advancing IB-related research. In this bibliometric study conducted in four top IB journals we examine how four models and concepts – Hofstede’s (1980), Hall’s (1976), Trompenaars’s (1993) and Project GLOBE’s (House et al., 2004) – have been used in the extant published research, during the period 1976 to 2010. Examining a sample of 517 articles using citations and co-citations matrices revealed interesting patterns of the connections across these studies. Hofstede’s (1980) research on the cultural dimensions and Kogut and Singh’s (1988) advancement on cultural distance are the most cited and hold ties to a large variety of IB research. These findings point to a number of research avenues to deepen our understanding on how firms may handle different national cultures in the geographies they operate.

Keywords: Cultural models, Hofstede, Trompenaars, Hall, Project GLOBE, bibliometric study, review
INTRODUCTION

International business (IB) research has been delving into a variety of decisions firms must make when they internationalize, from the choice of the locations, to the entry mode decision and the strategies pursued. According to some authors (see, for example, Ferreira et al., 2009) IB studies rely strongly on the environmental context and this is a distinguishing factor from, for instance, studies of management of large-scale enterprises. As Boyacigiller and Adler (1997, p. 398) argued: "by definition, IB is contextual. It specifically includes the external international environment in which firms conduct business; that is, the international context in which firms are embedded. It is precisely the nature of this embeddedness in an external international environment that has distinguished IB from other areas of management inquiry". As firms seek to operate in foreign geographies, regardless of the underlying motivations, the structural and environmental complexity and uncertainty increase (Mascarenhas, 1982; Ebrahimi, 2000). Hence, at least to some extent, IB studies require the inclusion of environmental dimensions as the raison d’être for its legitimacy. One essential environmental dimension is culture.

While the traditional IB research focused considerably on the political, legal and regulatory forces (Gatignon & Anderson, 1988; Gomes-Casseres, 1990), the number of IB studies incorporating national culture has increased rapidly since 1980. The soaring pattern of culture-related IB research undoubtedly benefited from the categorization and quantification of national culture by Hofstede (1980). Various definitions of culture emerged. For instance, Hofstede broadly define culture as the values, beliefs, norms, and patterns of behaviors that distinguish one national group from another; Erez and Earley (1993: 43) describe culture as “the core values and beliefs of individuals within a society formed in complex knowledge

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1 Culture can be conceptualized at different levels (e.g., national, sub-national, organizational, and intra-organizational). Prior research has examined how national culture dominate/interact with more micro-level culture (e.g., Hofstede, 1980; Javidan, House, Dorfman, Hanges & de Luque, 2006; Pothukuchi, Damanpour, Choi, Chen & Park, 2002; Sirmon & Lane 2004). Our theoretical discussion and empirical analysis in this study focus only on national culture.
systems during childhood and reinforced throughout life”. Culture has been shown to permeate all aspects of life within a society and exert a significant impact in an array of situations and decisions, from firms’ international operations performance to management teams’ structure (see Boyacigiller & Adler (1991), Earley & Gibson (2002), and Kirkman, Lowe and Gibson (2006) for a review).

Our goal in this study is to provide researchers with a map to better understand a substantial portion of IB publications that are on and/or incorporating culture. Specifically, we adopt the bibliometric method to map how four cultural models – Hall (1976), Hofstede (1980), Trompenaars (1993) and Project GLOBE (House et al., 2004) – have been used in the extant published research. This mapping also permits observing the themes and streams of research that use culture as one of its backbones. Hence, we seek to identify the intellectual connections among different works and how they may be contributing to the field. The bibliometric method is supported in analysis of citations and co-citations and network representations of the linkages among works. By doing so, we identify the typically invisible network of knowledge underlying a critical portion of IB research - culture. Identifying and understanding the knowledge network of IB research dealing with culture enable us to formulate insights on how the field may evolve and offer specific suggestions for future research on culture. The most recent JIBS Decade Award Winning article by Oded Shenkar (2001) and the retrospective (Shenkar, 2012) highlight the critical role culture plays in IB research and, more importantly, stress the urgent need to address the numerous gaps and even pitfalls associated with IB research on culture. Our study contributes to the conversation on the field evolution of IB research on culture, by mapping out the relevant knowledge network and identifying research gaps that can direct future IB research.

There are indeed other methods to study a discipline or a stream of research, such as the traditional literature reviews. However, traditional literature reviews fall short in two aspects:
first, the volume of literature summarized tends to be fairly small; second, literature reviews tend to be based on rather subjective approaches and the analysis of linkages across a large number of scholarly articles can be challenging and, sometimes, impossible to implement. Our study seeks to overcome these limitations and fill a void in the extant IB research by applying citation and co-citation analyses to a representative sample of high quality papers published in four top IB journals.

This article is structured as follows. First we review the theoretical background on culture, cultural models and constructs, with a particular emphasis on the four models examined in our study. Next we present the bibliometric method, as well as our sample and the procedure we followed. The main results of the study are then presented and we complete the article presenting the main conclusions and discussing the results.

**CULTURAL ISSUES AND MODELS**

Understanding the nature and influences of culture is central to international business research. Few scholars or managers would disregard the impact that national culture may bear on firms’ operations. A substantial portion of firms hazards and difficulties arises from the added costs of coping with operating in unfamiliar milieu, the transaction difficulties of sharing knowledge and technologies across borders, the complexities of human interactions in a distant work environment or in deciding whether a joint venture or an acquisition are the best entry modes into a foreign geography. Many of these hazards emerge directly from – or are largely influenced by – culture and cultural differences, as the extant literature has noted.

Albeit the acknowledged importance of culture, IB research has seen an upsurge in research using culture as a dependent, independent or mediating variable most notably since Hofstede’s (1980) work revolutionized the research on culture. Why did this happen? There are certainly several causes and one is the growing understanding that macroeconomic and political factors cannot account for an array of firms’ actions and hazards; other cause is the
emergence of explanations based on transaction costs, social networks and the exploitation and exploration of firm-specific capabilities. Notwithstanding, it is not irrelevant that Hofstede’s study provided researchers with a quantified measure of culture that permits going beyond a conception of culture as “everything out there” to the possibility to empirically account for cultural effects (Boycigiller, Kleinberg, Phillips & Sackmann, 1996; Kirkman, Lowe & Gibson, 2006). Hofstede’s cultural dimensions are now well known by researchers and a topic on most undergraduate curricula in business administration.

The most well-known cultural taxonomy was presented in Hofstede’s (1980) seminal work ‘Culture’s consequences: International differences in work-related values’. By studying the worldwide subsidiaries of a multinational corporation, Hofstede identified four cultural dimensions: Collectivism-individualism, Masculinity-femininity, Power distance, and Uncertainty avoidance. Collectivism-individualism refers to how tightly an individual in a country is integrated into groups and communities. Masculinity-femininity uses the stereotype of male and female behaviors to refer whether the male values and conducts (such as performance, competition, success, assertiveness) are dominant, or the values which are more feminine (such as solidarity, care for the weak, cooperation, personal relationships and friendship) prevail. Power distance refers to the extent to which people accept and expect unequal distribution of power. Uncertainty avoidance reflects the extent to which people accept and deal with unstructured, ambiguous and different situations. A fifth dimension was later added by Hofstede and Bond (1988) - Confucian dynamism which is often referred to as Long term orientation. This dimension deals with people’s view of time and the relative importance to the past, the present or the future.  

2 A sixth dimension of Indulgence-restraint was recently added, which captures whether a society “allows relatively free gratification of basic and natural human drives related to enjoying life” or supresses such needs and stresses strict social norms (http://geert-hofstede.com/dimensions.html). As this dimension is relatively new and has not been cited much in the literature, we do not include it in the analysis.
In addition to Hofstede’s cultural taxonomy, there are three other culture frameworks that are well known in the field of IB research. Around the same era as Hofstede, Edward Hall’s studies have sought to unveil several cultural factors such as context, time and space that are important to understand individuals’ behaviors and interactions (Boyacigiller & Adler, 1991). The most influential one, Hall (1976), advanced the need to examine the situations in their context and proposed two dimensions: high and low context cultures. In essence, Hall’s (1976) distinction is that in high context cultures there are several contextual elements, perhaps some rather invisible, that help people make sense and understand messages. In these cultures there are many “unwritten” rules and norms that interfere in the interactions and on how things actually work. Conversely, in low context cultures, the communication is more explicit and relies less on other situational factors, non-verbal communication and signs.

A different model was put forward by Trompenaars (1993). He suggested seven cultural dimensions, regarding several cultural facets such as time, inter-personal relations, relation with nature, rules and affections. The dimensions, constructed in a continuum were: Universalism vs. Particularism (deals with the relation of people with rules and laws), Individualism vs. Communitarianism (relation of people with others), Affective vs. Neutral (how people deal with and reveal emotions), Specific vs. Diffuse (how people see their own lives), Achievement vs. Ascription (how people deal with accomplishment), Perception of time (time orientation – past, present or future orientation), and Relation to nature (relation to the environment). Trompenaars’ (1993) model also shows a partial overlap with Hofstede’s (1980) dimensions: “Individualism vs. Communitarianism” bears resemblance with Hofstede’s “collectivism-individualism”, “Achievement vs. Ascription” is somewhat similar to Hofstede’s “power distance” and “Perception of time” finds equivalent in Hofstede’s “Confucian dynamism” dimension.
More recently, a large project was undertaken to advance a different cultural model. Project GLOBE (Global Leadership and Organizational Behavior Effectiveness) used a sample of over 17,000 respondents to test the model and estimate the scores for 62 societies (House et al., 2004). House and colleagues focused on the leadership behaviors across the world and identified nine cultural dimensions: Performance orientation, Assertiveness orientation, Future orientation, Humane orientation, Institutional collectivism, Family collectivism, Gender egalitarianism, Power distance and Uncertainty avoidance (House et al., 2004). The GLOBE project formulated these dimensions at least to some extent building upon Hofstede’s original taxonomy, the values advanced in Kluckhohn and Strodtbeck (1961) and McClelland (1961) - see a discussion in Leung et al. (2005) and Hofstede (2006). Hence, although House and associates use different terms to identify cultural dimensions, their results are fairly consistent with Hofstede’s. For instance, ‘assertiveness orientation’ and ‘gender egalitarianism’ are related to Hofstede’s ‘masculinity-femininity’, other dimensions are related to ‘collectivism-individualism’, and ‘power distance’ and ‘uncertainty avoidance’ are identical to Hofstede’s dimensions with the same name (Leung et al., 2005).

There has been other effort in proposing cultural taxonomies in the literature, many of which share a large portion with Hofstede’s (1980) framework. For instance, Schwartz (1994) identified seven cultural dimensions: Conservatism, Intellectual autonomy, Affective autonomy, Hierarchy, Egalitarian commitment, Mastery, and Harmony. Also based on Hofstede’s cultural dimensions, Kogut and Singh (1988) presented an apparently simple manner to gauge cultural differences between two countries, termed cultural distance. There are few concepts in IB studies and research that have gained such widespread acceptance as cultural distance. Cultural distance has been used as an explanatory variable to such disparate decisions as the markets to enter (Loree & Guisinger, 1995), the entry modes adopted (Kogut & Singh, 1988; Brouthers & Brouthers, 2000), the inter-firm knowledge transfers (Brewer,
subsidiaries performance (Tihanyi, Griffith & Russell, 2005) and joint ventures survival (Barkema & Vermeulen, 1997). Albeit the questioning whether distance is the correct term to use when theorizing and measuring cultural differences and conflicts (Shenkar, 2001), the index developed by Kogut and Singh (1988) has been the go-to measure for most empirical research on culture.

Therefore, our bibliometric analysis focuses on the four studies – Hofstede (1980), Hall (1976), Trompenaars (1993) and House and colleagues (2004) – and the roles they have been playing in the IB knowledge network.

**METHOD**

*Method of bibliometric analysis*

A bibliometric study relies on a quantitative analysis to ascertain the patterns, trends and linkages of publication in a certain field. After the volume of research in an area and consequently of publications have grown drastically over an extended period of time, there arises the need for scholars to take a step back and synthesize the current state of the art in that field. The bibliometric studies seek to make some sense, summarizing or examining the extant body of literature and thus depicting the current state of knowledge in a given field. That is, bibliometric studies are a manner to make sense of the extant research, or state of the art, overcoming the known limitations of the traditional literature reviews (Börner, Chen & Boyack, 2003).

In business or management research there are copious examples of bibliometric studies, albeit with different aims and scopes and resorting to diverse sources for data. Bibliometric methods have been used to unveil prolific institutions and authors (Chandy & Williams, 1994; Ferreira, Pinto, Gaspar & Serra, 2011; Kumar & Kundu, 2004; Morrison & Inkpen, 1991; Pillai, 2007), to describe connections among authors and coauthors and/or works in published research (Ferreira, 2011), delve into the intellectual structure of a theory (Martins, Serra, Leite
& Ferreira, 2010) or discipline and journal (Chan, Fung & Leung, 2006; DuBois & Reeb, 2000; Hofer et al., 2010; Ramos-Rodriguez & Ruiz-Navarro, 2004; Rehn & Kronman, 2006).

Methodologically, bibliometric studies resort to publication counts, citation and co-citation frequencies (Liseé, Larivière & Archambault, 2008; Rokaya et al., 2008; Hofer et al., 2010), word counts and themes (or coverage) delved into. In essence the method is reflected in its own meaning – the term “bibliometric” derives from the word “biblio” and “metrics”, signifying the study of bibliography with the use of mathematics. The data for bibliometric studies is retrieved from printed communication in a field. Usually, periodicals, such as academic journals, are the primary source of data. Nonetheless, other formats such as books, reports, conference proceedings, working papers and dissertations and other unpublished materials may also be used. The academic journals are usually the primary source of data given that they are the vehicles for scholars to announce the results of their research, legitimized by the reviewing process by peers. As such, journal publications portray the current state of knowledge, what is being researched and what are the trends in academic knowledge.

A bibliometric study examines citations and co-citations of published articles to detect trends and connections among authors and their research within a specific field. Authors cite others when their work is relevant for the argument or in supporting their claims; that is, when a prior work is relevant for his own work (Ramos-Rodriguez & Ruiz-Navarro, 2004). Citation analysis is based on observing and computing the frequency with which a certain work is cited, or used, in the extant research (books, articles, reports and so forth). Hence, an assumption is that the more cited works are those that hold a largest impact on the discipline or field of study (Tahai & Meyer, 1999).

Co-citation analysis is a technique used to map the intellectual structure of a field or sub-field. In essence it relies on recording the number of papers that have cited a specific pair
of articles. In this manner, we may interpret this joint use as a measure of similarity of the content of those documents. This rationale permits identifying groups of authors, works or topics and may help us understand how these works may be connected, related and interrelated (Hofer et al., 2010; Pilkington & Liston-Heyes, 1999; Rehn & Kronman, 2006; Rokaya et al., 2008). Co-citation analysis compiles co-citation counts in matrix form and statistically scales them to capture a snapshot at a distinct point in time of what is actually a changing and evolving structure of knowledge (Small, 1993).

**Procedure and sample**

In this study we focus on four cultural models – Hofstede (1980), Hall (1976), Trompenaars (1993) and Project GLOBE’s (House et al., 2004) – to conduct the citation and co-citation analyses on four top journals for international business research. We used DuBois and Reeb’s (2000) ranking of IB journals and the latest Harzing’s Journal quality list (available at: [http://www.harzing.com/jql.htm](http://www.harzing.com/jql.htm)) and elected the top ranked journals publishing IB-related research. The metadata of the articles in the selected sample was collected from four journals - *Journal of International Business Studies* (JIBS), *Management International Review* (MIR), *Journal of World Business* (JWB) and *International Business Review* (IBR) – using the *ISI Web of Knowledge*. These four journals were the highest ranked IB-related journals available on ISI Web of Knowledge for download.

We searched the entire archive of these four journals (2,695 articles in total) for citations to each of the four works under scrutiny: Hall (1976), Hofstede (1980), Trompenaars (1993) and House et al. (2004). The procedure involved retrieving all the information on the articles citing each of the four works. These procedures rendered a sample of 517 articles for additional analyses (see Table 1). The core concern was to identify the papers that cite each of these works to examine the intellectual structure binding them to a variety of research avenues. Not all journals had available their entire publication record. For instance, MIR was
available for the period 1966 to 1990 and 2008 to 2010. JIBS, on the other hand, was available since 1976. JIBS and JWB were the biggest contributors to our sample (about 78% of the total sample).

Table 1. Sample description: Journals

<table>
<thead>
<tr>
<th>Journals</th>
<th>Ranking classification</th>
<th>Publication dates</th>
<th>Articles available</th>
<th>Sample</th>
</tr>
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<tbody>
<tr>
<td>Journal of World Business (JWB)</td>
<td>A 3 3</td>
<td>1997 - 2011</td>
<td>394</td>
<td>105</td>
</tr>
<tr>
<td>International Business Review (IBR)</td>
<td>A 3 3</td>
<td>2005 - 2011</td>
<td>231</td>
<td>68</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>2,695</td>
<td>517</td>
</tr>
</tbody>
</table>

Sources: The ranking classifications were obtained from Harzing, Anne-Will (2011). Journal Quality List, Thirty-eight Edition, Australia
2. ABS ranking — Association of Business Schools Academic, Journal Quality Guide, March 2010 (scale: 1, 2, 3, 4, 4*).
3. Cra ranking — Cranfield University School of Management, Journal Rankings, List February 2010 (scale: 1, 2, 3, 4).
The information on the publication dates and the articles available was obtained from ISI Web of Knowledge. Computations by the authors.

All the data retrieved – such as the journal name, title of the paper, authors, volume, issue, year, abstract and the all the references included in each article - was corrected as needed. For instance, some references had typos and for the books that have multiple editions we considered only for the first edition. The data was treated using the software Bibexcel (available at: www.umu.se/inforsk/Bibexcel) for creating citation counts and co-citation matrixes. The co-citation networks were drawn using UCINET (Borgatti et al., 2002).

Following the procedures described in Ramos-Rodriguez and Ruiz-Navarro’s (2004) analysis of the intellectual structure of strategic management research, we conducted a two-step analysis, starting with a citation analysis followed up by a co-citation analysis. These
procedures allowed us to assess the evolution of the citations and to discern the intellectual structure of IB-related culture research.

RESULTS

Table 2 shows the 517 papers in the sample and the journals in which they were published. JIBS has published nearly 60% of the papers, followed by the JWB and IBR. Overall the 517 papers identified as citing any of the four cultural models used about 31,200 references.

Table 2. Citations

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<th></th>
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</thead>
<tbody>
<tr>
<td>Hall (1976)</td>
<td>8</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Hofstede (1980)</td>
<td>224</td>
<td>70</td>
<td>48</td>
<td>28</td>
<td>370</td>
</tr>
<tr>
<td>Hofstede (1980)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trompenaars (1993)</td>
<td>25</td>
<td>16</td>
<td>8</td>
<td>2</td>
<td>51</td>
</tr>
<tr>
<td>House et al. (2004)</td>
<td>49</td>
<td>15</td>
<td>7</td>
<td>5</td>
<td>76</td>
</tr>
<tr>
<td>Total</td>
<td>306</td>
<td>105</td>
<td>68</td>
<td>38</td>
<td>517</td>
</tr>
</tbody>
</table>

The data collected from the four journals permitted a set of analyses. First, we observe that culture is indeed an increasingly important topic for IB research. The citation trend (Figure 1) shows a clear upward trend in the number of citations using any of the four cultural models. This result is consistent with Ferreira and colleagues (2009) who noted, in a content analysis of the papers published in three top IB journals, that cultural issues have been dominant in IB-related research and may be, to a large extent, considered the primary contextual factor in the extant research. Citations to Hofstede were the most frequent (72% of the total), followed by Project GLOBE (15%), Trompenaars (10%) and Hall (3%). Using a longitudinal perspective, we identify a constant advantage – in terms of number of citations – of Hofstede’s (1980) model. Project GLOBE’s (House et al., 2004) model has seen an increase in its use and it rapidly became the second most cited model. Trompenaars’ (1993)
and Hall (1976) have a relatively stable number of citations throughout the years. Thus we may perform an aggregated analysis as splitting the sample into time periods would not render any useful conclusions.

**Figure 1.** Evolution of publications: Work and year (1976-2010)

![Graph showing the evolution of publications from 1976 to 2010 with data for Hall (1976), Hofstede (1980), Trompenaars (1993), and House et al. (2004).]

Source: Citation data collected from ISI Web of Knowledge. Computations by the authors.

How each of the cultural models is used can be better assessed by examining the ties binding the works citing them. This involves a co-citation network. We thus constructed the four co-citation networks (Figures 2 to 5) which permit us an independent analysis for each cultural model. In essence the following depictions represent network analyses graphing the relationships in the co-citation matrices and also highlight the strongest links among works. It is further worth noting that the following networks only show the top 25 links; that is, the 25 most frequent co-citations. The thicker lines represent stronger ties – which may also be interpreted as works that share the most common links to each other.

Figure 2 reveals the co-citation network for Hofstede (1980). Jointly the 370 articles citing Hofstede’s work used 21,414 references. The few works in the network are also those more often used jointly with Hofstede’s work. The more intensive the ties connecting a given
work to Hofstede and to other works, the more prestigious status for that work in IB studies. Collectively these works shape the direction of IB research dealing with cultural aspects.

There are two notable co-citation ties to Hofstede (1980). First, there is a strong linkage between Hofstede (1980) and Kogut and Singh (1988), which is not surprising given they built a cultural distance index based on Hofstede’s dimensions and values. Second, the joint use of Hofstede (1980) and Shenkar (2001) is worth noting. Shenkar (2001) revisited the cultural distance construct and presented a very critical review and critiques regarding the theoretical and methodological properties of cultural distance. Hofstede (1980) and the two salient co-citation ties to it represent the theoretical foundation, dominant empirical measure based on such a foundation, and efforts in improving the theoretical and methodological aspects of the IB research on culture.

The co-citation ties to a large number of other studies, though less salient than the above two, represent the influence of Hofstede’s cultural model on a diverse body of IB research. The tie to Johanson and Vahlne (1977) is straightforward as the Upsalla School proposed a model of incremental internationalization whereby firms expand first to countries closer in psychic distance and culture is one factor of that distance. Hence, studies on the internationalization of firms are likely to co-cite these two works jointly. The connections to other works shows the consideration and utilization of Hofstede’s cultural model in cross-border acquisitions (Barkema & Vermeulen, 1998; Morosini, Shane & Singh, 1998), the institutional facets of the international business environments (DiMaggio & Powell, 1983), the strategies of multinational enterprises (Bartlett & Ghoshal, 1989), the liabilities of foreignness (Kostova & Zaheer, 1999) and the transaction costs, namely those that may incur from the cultural difference hazards (Gatignon & Anderson, 1988; Erramilli & Rao, 1993).
In Figure 3 we reveal the co-citation network for Hall (1976). Hall’s (1976) work has been cited by a mere twenty papers in our database. This network shows the co-citations in the twenty papers that cite Hall’s (1976) work. Jointly these papers used 1,259 references. Despite the strong tie to Hofstede (1980), we observed that the network is largely comprised of articles dealing with culture in mostly a conceptual approach (e.g. Adler, 1983; Triandis, 1995; George, Jones & Gonzalez, 1998). Such a pattern is likely to due to the appealing nature of the parsimony of Hall (1976) by including only two categories in understanding cultural differences and the limited empirical power of measuring and differentiating national cultures.
Trompenaars (1993) has been scarcely used in the extant IB research. Only 51 articles cited Trompenaars (1993), using 2,936 references. The strongest ties depicted in Figure 4 are to other studies such as Hofstede (1980), Schwartz (1994), Hofstede and Bond (1988), Erez and Earley (1993), Triandis (1994), Shenkar (2001), Ralston and colleagues (1997) and other papers that in essence deal conceptually with measuring and conceptualizing culture and cultural distance (e.g. Ronen & Shenkar, 1985; Markus & Kitayama, 1991; Kirkman et al., 2006).

**Figure 4.** Co-citation network for Trompenaars (1993)
Figure 5 depicts the co-citation network for Project GLOBE’s (House et al., 2004) cultural model. The 76 papers which cite House and colleagues (2004) often cite it jointly with Hofstede (1980) and Kogut and Singh’s (1988) on cultural distance. We may arguably identify the rationale of this co-citation in two sets of reasons: first, scholars cite House and colleagues (2004) and Hofstede (1980) to compare the two models and eventually justify using one or the other; second, the co-citation with Kogut and Singh (1988) may be explained by the use of GLOBE’s scores in Kogut and Singh (1988) cultural distance index. There are also strong co-citation ties with Shenkar’s (2001) paper which points out conceptual problems on cultural models and cultural distance constructs and with Hofstede’s (2006) paper examining Project GLOBE.

**Figure 5.** Co-citation network for House et al. (2004)
DISCUSSION AND CONCLUDING REMARKS

The primary goal with this paper is to complement existing research on the role of culture and cross-cultural issues in international business (IB) research. We do so by conducting a bibliometric analysis of the use of culture, and specifically the four cultural models, in IB-related research. Ferreira, Li, Guisinger and Serra (2009), for instance, noted how scholarly research published in three major IB journals has seen cultural issues as the main international business environment dimension examined. Our study presents a comprehensive perspective on how culture has been included in the extant research and thus may at least in part complement extant research. Through citation and co-citation analysis of 517 articles published in four top IB journals and the associated 31,286 references, our bibliometric study assesses the extent to and the contexts in which the four cultural models -
Hofstede (1980), Hall (1976), Trompenaars (1993) and Project GLOBE (House et al., 2004) - were utilized in the extant IB research.

Several salient patterns arose from our analysis. First, the co-citation of Hofstede’s (1980) taxonomy of cultural dimensions and Kogut and Singh’s (1988) paper on cultural distance (particularly the aggregated measure) has offered the most widely-adopted theoretical and empirical foundation for IB research on culture. Despite imposing numerous critiques on the validity of cultural distance construct and its measure, Shenkar (2001) recommended the continuous use of the construct and measure but with care and in conjunction with cognitive consideration. Unfortunately, as commented in the retrospective of his award winning article, Shenkar (2012) expressed disappointment in the progress over the past decade. In fact, the idea that we ought to focus more on the cultural differences between countries rather than on absolute cultural distance indexes or measurements has gained substantial ground in IB research. The idea that more than fixed cultural values managers actually think about the differences between home and foreign environments and the hazards, or difficulties, of doing business, and how different the foreign environment is from the home country environment, is intellectually appealing and has warranted scholars’ attention. An array of recent research has used this perspective in exploring specific themes. However, Shenkar’s critiques and recommendation have been taken to heart by culture scholars (though not always) as shown by our co-citation results on the ties from Hofstede to both Kogut and Singh (1988) and Shenkar (2001).

Second, Hofstede (1980) has left its footprint mainly in the IB research on internationalization process and organization learning, often favored by a transaction cost approach. We observe that Hofstede (1980) is often cited together with Johanson and Vahlne’s (1977) work on the internationalization of firms. Culture seems an important facet of psychic distance that firms consider when expanding internationally and selecting which
entry modes to deploy (see also Johanson & Wiedersheim-Paul, 1975). Culture is also an important factor when considering the liabilities of foreignness (Kostova & Zaheer, 1999): neglecting to understand, adapt to or react to a foreign culture greatly increases the potential hazards of operating abroad. Cross-cultural differences are a known factor forcing firms to adapt, to or to react, to such differences. Adapting or reacting to a culture, or just dealing with cultural differences, bears a cost that may hinder a firm’s success. Thus a firm may incur in higher transaction costs when selecting a market or an entry mode or any other IB-related decision than it would incur without the cultural hazards. Culture is therefore an important source of transaction costs which managers ought take into account in their decisions. Hence, it is reasonable the ties between Hofstede (1980) and works using transaction costs theory (Gatignon & Anderson, 1988; Gomes-Casseres, 1990; Kim & Hwang, 1992; Erramilli & Rao, 1993). It is thus not surprising that cultural integration is a crucial aspect of organizational learning. This may explain the joint use of Hofstede (1980) and works on organizational learning (Barkema et al., 1996; Barkema & Vermeulen, 1998).

Hofstede (1980) is also co-cited with works on multinational firms issues (Stopford & Wells, 1972; Buckley & Casson, 1976; Bartlett & Ghoshal, 1989) arguably because multinational firms are more exposed to cultural issues than domestic firms. The co-citations with other conceptual studies on culture and the impact of culture, such as Shenkar (2001), Schwartz (1994), Hofstede and Bond (1988), House et al. (2004), Ronen and Shenkar (1985) and Trompenaars (1993) probably seek to better understand the many dimensions, the concept and the impact of culture on an array of IB operations. It is likely that authors seek to establish the validity of their choices or simply contrast perspectives.

We should point out that culture has been often included in the extant research on the form of cultural distance between countries or firms (Kogut & Singh, 1988). Culture distance has been used to, for instance, anticipating the sequence of foreign entry modes (Johanson &
Vahlne, 1977), and the observation that firms internationalize gradually by expanding first into countries with lower "psychic distance". Cultural distance has also been used to explain foreign direct investment decisions, especially supporting a transactions costs view (Gatignon & Anderson, 1988; Hennart, 1988, 1991; Hennart & Larimo, 1998). The suggestion is that the higher the cultural distance, the higher the control the multinational would prefer, or retain, over its foreign operations (Agarwal & Ramaswami, 1992; Kogut & Singh, 1988; Barkema, Bell & Pennings, 1996; Morosini, Shane & Singh, 1998) which might mean selecting, for instance a joint venture (Kim & Hwang, 1992; Erramilli & Rao, 1993). Higher distance is associated with higher transaction costs and higher difficulties for transfer of competencies (Barkema & Vermeulen, 1998); overcoming these costs may entail internalizing the operations abroad (Dunning, 1988, 1993; Hennart, 1991) due to knowledge-based advantages (Kogut & Zander, 1993).

Third, especially notable in Hall’s (1976) co-citation network are the ties to several studies about culture, its measurement, conceptualization and dimensions, such as to Trompenaars (1993), Shenkar (2001), Adler (1983), Hofstede (1980, 1991), Hofstede and Bond (1988), Whorf (1956), Marschan, Welch and Welch (1997), and Triandis (1995). Using both Hall (1976) and other conceptual studies may be due to better understand culture, or perhaps to offer a complementary perspective. Although it is scarcely used, Hall (1976) is co-cited with works on such issues as negotiation (Pye, 1982; George et al., 1998; Graham & Lam, 2003) and communication (Samovar & Porter, 1997; Ariño, Torre & Ring, 2001) arguably due to the importance of understanding the context to conduct an effective negotiation and to communicate effectively. Another frequent co-citation is with Eisenhardt (1989), a methodological approach on case studies that stresses the need to clearly describe and apprehend the context of the case study’s object to produce good theory may explain this connection.
Fourth, a first glance at the co-citation mapping for Trompenaars (1993) reveals the connection to other conceptual studies delving on culture, such as Hofstede (1980, 1991), Shenkar (2001), Schwartz (1994), Triandis (1994, 1995), Hofstede and Bond (1988), Ronen and Shenkar (1985), House et al. (2004), Erez and Earley (1993), and Markus & Kitayama (1991). Also to the several studies that are cultural assessments verifying the impact of specific cultural dimensions in some organizational aspect. For instance, Ralston and colleagues (1997) delve into the impact of culture on worker’s values, Schneider and DeMeyer (1991) use the distinction between corporate and national culture to grasp how firms strategize, Morosini, Shane and Singh (1998) analyze the impact of culture on international acquisitions’ performance, Bartlett and Ghoshal (1989) depict how multinationals must deal with cultural issues when operating abroad, Gomez-Mejia and Palich’s (1997) investigate whether cultural diversity influences financial performance, taking into account indices of inter-cluster and intra-cluster diversity of several cultural dimensions. Many of the empirical works co-cited with Trompenaars (1993) use Hofstede’s (1980) dimensions to operationalize the study. Therefore, arguably, the reference to Trompenaars (1993) work is used to legitimize the methodological choice for a different model, as the co-citation with other methodology-related works (Eisenhardt, 1989; Aiken & West, 1991) reinforce.

Fifth, Project GLOBE’s (House et al., 2004) co-citation map shows a strong connection to Hofstede (1980) model and to other conceptual works on culture, namely Ronen and Shenkar (1985), Triandis (1995), Schwartz (1999), Smith, Peterson and Schwartz (2002), Early (2006) and Tung (2008) arguably to depict a broader picture of culture or to present alternative perspectives. It is also distinguishable a connection to works which criticize Hofstede’s (1980) model (McSweeney, 2002; Kirkman, Lowe & Gibson, 2006) arguably to justify the use of GLOBE’s model instead of Hofstede’s. There is also a tie to papers that
criticize Project GLOBE – e.g. Hofstede (2006) – and to a number of papers which respond to and analyze the debate – e.g. Smith (2006) and Maseland and Van Hoorn (2009). Finally, we identify some connections similar to Hofstede’s (1980) co-citation map which may suggest that Project GLOBE’s cultural model is used to explain the same issues, arguably taking the place of Hofstede’s (1980) model (Johanson & Vahlne, 1977; DiMaggio & Powell, 1983; Barkema, Bell & Pennings, 1996; Morosini, Shane & Singh, 1998). The strong connection to Kogut and Singh’s (1988) cultural distance index may also suggest that an increasing number of scholars are using GLOBE’s cultural scores instead of Hofstede’s (1980).

The empirical data shows that there has been an increase in research that delves somehow on cultural issues. The number of citations to cultural models has greatly increased from the mid-1990’s onward. This reveals that culture, or national cultures, is a core element of the international business environment to which firms must adapt or react (Ferreira et al., 2009) and, as such, it is an essential contextual element for IB research (Ferreira et al., 2009). Notwithstanding, the inclusion of culture in IB research has been rather varied and it is common for culture to assume either an independent effect (Pothukuchi et al., 2002) or moderating effect (Newman & Nollen, 1996) on firms actions.

Culture has also had an impact in a number of other subjects (see also Triandis, 2004). For instance an impact, albeit reasonably minor, in understanding questions such as the integration of expatriates, communication issues and expatriates deployment. Expatriates face a number of challenges, namely overcoming cultural barriers when dealing with employees, clients, suppliers and other stakeholders. But understanding culture is also important for people working with other cultures regardless of whether they are expatriates or simply work in a multi-cultural setting (Triandis, 2004). This line of research has much to evolve and additional studies are needed. Cross-cultural differences may also be accountable for firms’ strategic decisions on whether to use expatriates or local managers. For instance, cross-
cultural differences were found to be a significant indicator of expatriates deployment, even though the impact is asymmetric (Brock et al., 2008). This study used both Hofstede’s (1980) and GLOBE’s (House et al., 2004) models to test the hypothesis with similar results.

**Limitations and Future Research Avenues**

There are some limitations in this study that we highlight. Certainly, those referring to the bibliometric method itself. Examining citations and co-citations permit us to treat larger volumes of research than the standard literature reviews and overcome eventual bias in building an argument. However, we must acknowledge that simply looking at citations does not warrant us with immediate understanding of why a citation is made (Ramos-Rodrigues & Ruiz-Navarro, 2004) and authors may cite a previously published work to build upon, to criticize or to contrast and complement. Moreover, co-citation analyses only allow observing pairs of articles while it could be interesting to examine the entire pool of references used in each paper.

Our sample may also be a limitation given that it comprises only the articles published in four journals. Albeit we used the top journals in the discipline, there are other top journals that also publish IB-related research, such as the Strategic Management Journal, Academy of Management Journal, Organization Science, and many others. Moreover, we concede that IB research using culture is also published in second tier journals and other journals that are relevant for IB scholars, nonetheless, we did not aim at being exhaustive. It is possible, even reasonably unlikely that we may find different themes and networks when delving into other general management journals but more distinguishable patterns may be uncovered within some disciplinary focus. Future research may examine how different disciplines research culture and not only how they are impacted by cultural studies but also how they contribute to the development of our understanding of culture. Perhaps, different disciplines combine culture with different theories or phenomena.
We retrieved our citation and co-citation data from *ISI Web of Knowledge* and it has substantial gaps in the reporting of articles. For instance, it only includes author-supplied keywords since 1993 and the coverage of the journals is somewhat variable, as we noted. Our sample was thus forcefully shortened - as noted there is an 18 years gap in the reporting of MIR (1990-2008). Still we are fairly confident that the extant research published in these four journals accurately depicts the IB field, as the top journals usually set the benchmark as for the issues dealt with and the methodologies used. Nevertheless all these limitations are possible to overcome in future research by taking three procedures: to do a content analysis of the articles, augment the journal list and seek other sources for the data.

The bibliometric procedure and method we used did not resort to statistical modeling of some sort. Our analyses were mainly qualitative but future studies may employ statistical techniques to better grasp the state of the art of research. For instance, future research may use statistical techniques to construct clusters of authors and theories, of research questions, of empirical setting and of phenomena more often examined, as well as the how and why of possible variations detected.

We restricted our analyses to articles published in refereed journals but bibliometric studies may employ other sources such as books, conference proceedings, doctoral and masters theses, news in the media, reports, and so forth that may enrich future research. In this respect, we do not think that non referred works have the potential to be more path breaking of the mainstream research but we should also note that the four works examined were originally published as book, not as articles in journals. Finally, we did not undertake a content analysis of the papers ad future research may examine, through a content analysis issues such as the theories used, samples, and the overall context of each article. These studies may help us in understanding the evolution of research using culture.
The focus of our paper may be viewed as a limitation. There are many typologies entailing cultural dimensions and traits. For this study we selected only four models. The fact is that Schwartz (1994) and Triandis (1995) for instance have not seen many applications yet in IB research (e.g. Ralston et al., 1997). These limitations are possible to overcome in future studies, for instance, including other cultural models, such as Schwartz (1994) and Triandis (1995). Notwithstanding, following Triandis (2004: 89-90) we should point out that Hofstede’s work has become the “the standard against which new work on cultural differences is validated. Almost every publication that deals with cultural differences and includes many cultures is likely to reference Hofstede”.

There are a number of other avenues to advance future IB studies on culture. Since the cultural models are different, even if somewhat overlapping, it would be important to understand whether they offer differing predictions as to firms and individuals behaviors. Moreover, we could add other cultural taxonomies such as those identified and assess whether they are of higher value to research specific actions or choices, or we could offer an inclusive model for analyzing cultures that synthesize the existing models.

We detected ties to several of the most salient streams of IB research, namely the issues concerning the hazards of foreignness, the entry mode choices and the transaction costs theory. However, the ties to applications of the resource-based view (RBV) are far more scant. Delving into this gap in the extant literature may provide a better understanding of why do some firms succeed while others fail, especially because it would seem that bridging cultural differences is in itself a particularly interesting capability. In future studies, we may review – using a bibliometric approach or other traditional methods – the RBV literature to focus on the role of culture adaptation.

Culture has been the environmental dimension that most attention has captured in the extant research (Kirkman, et al., 2006; Ferreira et al., 2009), particularly after 1980. Ferreira
and colleagues (2009) suggested that Hofstede’s acceptance is at least partly due to his presenting a quantifiable, understood, available, applicable for inter-country comparisons, largely replicable framework for categorizing ‘culture’ across countries. Notwithstanding, there is room for improving upon the existing measures, eventually, as put forward by Shenkar (2001) with some more cognitive assessments. Moreover, culture is to some extent dynamic, changing as economic conditions change, for instance, and require frequent updating.

No single scholar or businessman would deny the pervasive role of culture in influencing a large array of decisions when dealing with international operations. For scholars it is important to take this endeavor of understanding the impact of culture a step further, namely by overcoming the parochialism and US-centered research bias (Boyacigiller & Adler, 1991). While we observed that Hofstede’s (1980) cultural taxonomy and the relative importance of the concept of cultural distance, there is much to be made to improve the success of multinational firms but also of the so-called born global firms. For research, moving towards quantitative measures of conceptual constructs is essential as science ultimately aims to search for universal truths or theories; but it is likely that more qualitative studies permit first-hand apprehend the intricacies of multi-dimensional concepts such as culture and what it entails. Future research has thus a munificent arena to grow and it is likely that culture will continue to hold an important place in IB research.

REFERENCES


