Evaluating the Effects of Cultural and Psychic Distance on Multinational Corporate Performance: A Meta-Analysis

Abstract

The conceptual and empirical relationship between Cultural and Psychic Distance (CD&PD) and Multinational Enterprises' (MNE) performance is a subject that still remains considerably underexplored. Regardless of the large number of studies, previous studies have delivered a mixed bag of results. Although previous meta-analyses have analysed the overall relationship as presented in the literature, they did not produce in-depth investigations of the moderators of the relationship. In this paper we claim that it is this lack of moderators which is the potential source of inconsistency in literature findings. Using a sample of 56 articles, the meta-analysis results indicate that different variables advocate a different relationship between CD&PD and multinational enterprises' performance, thus confirming the vast number of moderators for the relationship as well as their crucial role. The most important sources of inconsistency identified from the analysis are the different measures used to capture the CD&PD and multinational enterprises' performance.

Keywords: Cultural Distance; Psychic Distance, Performance; Meta-analysis

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1. Introduction

The conceptual and empirical intricacy of examining the role of "distance" and its impact on the performance of Multinational Enterprises (MNEs) is reflected in the vast assortment of the literature outcomes. Ambos and Håkanson (2014), in the recent special issue by the Journal of International Management, analyse this distance, the central role it has in the IB field and reflects on the two well-known concepts of distance, namely Cultural Distance (CD) and Psychic Distance (PD). One of the most frequently used definitions of CD is coined by Hofstede (2001, p.9) according to which CD is "the collective programming of the mind that distinguishes the members of one group or category of people to another" (Hofstede, 2001, p. 9). PD, derived from the word "psychikos" ("psychi") which means the mind and soul of a person (Simpson and Weiner 1989), focuses on the differences that create obstacles in the flow of information (Beckerman, 1956)

This CD&PD have significant implications on managerial practises for MNEs operating in various and diversified cultures. Ghoshal and Bartlett (1990, p. 603) define an MNE as a firm which "consists of a group of geographically dispersed and goal-disparate organizations that include its headquarters and the different national subsidiaries". The performance of MNEs is therefore influenced by the elevated costs of coordinating operations in multiple and diversified locations (Hennart, 1991) while differences in cultural values and attitudes leads to conflict, misunderstandings, and lack of cohesion (Glick et al., 1993), while endeavors to manage or regulate cultural variation require high levels of time, money and effort (van Tulder & van der Zwart, 2006). For this reason, various research focuses in identifying the investigating the impact of CD&PD on MNE performance.

In the literature, there is an evident lack of consistency in findings for the relationship. According to Earley (2006), the inconsistency of the relationship between CD&PD and MNE performance is evident in the varied conceptual approaches and research findings in the literature. Some studies point out a negative influence of CD&PD on MNE performance, some a positive and others a non-significant relationship. The mixed outcomes for the relationship between CD&PD and MNE performance are usually attributed to the complex nature of national culture and the difficulty in capturing it. As with many other convoluted issues, the construction of a meta-analysis provides valuable assistance in establishing the cumulative knowledge on the subject, as well as determining the foundations of the irregularity and direct future requirements on the subject (Hunter & Schmidt, 2004).

Nonetheless, the employment of the meta-analysis technique is considerably scarce in cultural studies. According to the findings of Kirca and Yaprak (2010), International Business (IB) researchers have

been reluctant to implement meta-analytic practices for amassing and producing research findings, since only 24 international studies were published in journals, as opposed to 104 in marketing and 414 in management journals. Currently, there are three different meta-analytic studies published in the literature; Tihanyi et al. (2005), Magnusson et al. (2008), and Reus and Rottig (2009). Tihanyi et al. (2005) advocate a statistically weak and slightly negative relationship between CD&PD and MNE performance, while the moderating variables investigated do not have any significant effects. Magnusson et al. (2008) point out a strong and slightly negative relationship between CD&PD and MNE performance and exemplify three significant moderators; MNE origin, measures of CD&PD and relationship over time. Finally, Reus and Rottig (2009), find a positive influence of CD&PD on partner conflict, which negatively impacts on MNE performance, thus pointing out the indirect influence of CD&PD on the performance of International Joint Ventures (IJVs).

The most critical implication of the previous meta-analysis studies is the crucial role of the moderating variables used since as the authors above have indicated that the moderators can convert the relationship from negative to positive (Magnuson et al., 2008; Reus & Rottig, 2009). More importantly, as argued by the authors, only a few variables have been examined and indicate that further research needs to identify and investigate other moderators that have a significant impact on the relationship. The purpose of this paper is to address this gap, to indicate the role of further moderators on the relationship and also determine the level of impact they have on the relationship. Our study addresses this gap by extending previous meta-analyses, encompassing a larger number of papers and investigating an increased number of moderating variables.

The remaining of the paper consists of the following sections. This search is initiated with the review of the relationship between CD&PD and MNE performance by reflecting on existing literature findings to establish the magnitude of inconsistency. Then, the potential sources of irregularity are determined and analysed. The methodology section elaborates on the meta-analysis method implemented which has been developed by Hunter and Schmidt (2004) and on the different moderating variables which will be the key focus of our study. The meta-analysis results indicate that different variables advocate a different relationship between CD&PD and MNE performance, thus confirming the vast number of moderators for the relationship as well as their crucial role. The most important sources of inconsistency identified from the analysis are the different measures of CD&PD and MNE performance. These results are then reconfirmed by a regression analysis. To conclude, we reflect on the contribution of this research which relates to the causes of mixed outcomes, the limitations of our study and provide some suggestions for future research.

2. Literature Review

The conceptual and empirical relationship between CD&PD and MNE performance is a subject that still remains considerably underexplored and regardless of the large number of studies engaged in shedding light on this relationship, they have delivered only a mixed bag of results. A strand of the literature (Fang et al., 2010; Lin & Germain, 1998; Luo, 2001; Zeira et al., 1997), advocates that the extensive difference in cultural values and attitudes leads to conflict, misunderstandings, and lack of cohesion (Glick et al., 1993), while endeavors to manage or regulate cultural variation require high levels of time, money and effort (van Tulder & van der Zwart, 2006). At the same time, high levels of CD&PD increase the complexity of managing culturally sensitive MNE activities, such as upstream (Palich & Gomez-Mejia, 1999), downstream (Morrison & Roth, 1992), technology transfer (Keller & Chinta, 1990), and human resource management (Gomez-Mejia et al., 1998) activities, thus, it deteriorates advantages such as acquiring local experience and knowledge.

A different strand of the literature (Bernhard, 2007; Evans & Mavondo, 2002; Park & Ungson, 1997), argues that substantial benefits can be derived from operating in diverse cultural settings, such as valuable opportunities for innovation or R&D activities, increased levels of resourcefulness, advanced decision making prospects and enrichment of promotional and marketing activities (Cox Jr. & Blake, 1991). Furthermore, MNEs develop mechanisms (such as aggressive sales approaches, bottom-up decision-making processes) and strategies to deal with the high variation in cultural characteristics, which ultimately deliver several performance enhancements (Morosini et al., 1998).

Another important strand of the literature (Beamish & Jung, 2005; Fey & Beamish, 2001; Gomez-Mejia & Palich, 1997; Wu & Lin, 2010), points out that the relationship between CD&PD and MNE performance is not statistically significant. This strand suggests that we are witnessing a world with no restrictions or boundaries, where the international activities of MNEs are becoming detached from cultural influences (Barlett & Ghoshal, 2002; Korten, 1995; Wolf, 2004). The notion of cultures coming together is also reinforced by the higher autonomy in which information flows, the frequency of international travel and essentially the massive use of the internet (Sousa & Bradley, 2008). Regardless of this notion, Hofstede (2001) advocates that such modifications transpire in shallow levels of culture and do not principally generate changes in the deeply rooted cultural characteristics which form the core of national culture, hence, the impact of CD&PD on MNE performance remains considerably strong (Moore & Ress, 2007; Scholte, 2003).

Consequently, the literature does not provide a clear interpretation of the relationship between CD&PD and MNE performance. In order to form a complete understanding of the diversity of these outcomes, we formulate an illustration of the literature findings (Table 1). The table presents the 56 papers analysed along two dimensions. On the vertical axis we present papers with regards to their sign and significance and on the horizontal axis with regards to the nature of the relationship. The indirect type of relationship focuses on different elements of an organization which are significantly affected by

CD&PD and in turn these influence on the overall MNE performance. For instance, several empirical examinations provide evidence that CD&PD negatively influences partner trust or cooperation, which ultimately has a negative impact on MNE performance (Fey & Beamish, 2000; Luo et al., 2001; Luo & Park, 2004). These indirect conceptualizations of the influence of CD&PD on several aspects of a MNE have provided significant insights on the relationship, thus, we implemented both types of effect.

Insert Table 1 here

The majority of the articles is located in the segment of the direct relationship and is either negative or not significant. Numerous authors conclude that an insignificant relationship exists between CD&PD and MNE performance, however, most point out that the lack of significance is due to empirical limitations, such as small sample sizes (Dikova, 2009; Evans & Mavondo, 2002; Lu & Lee, 2005; Majorie & Salk, 1996) and the implementation of countries with similar cultural characteristics (Harrigan, 1988; Lua & Hebert, 2005; Mjoen & Tallman, 1997). It is worth noting that although, the most frequently found relationship is negative, a few authors point out evidence of a positive relationship. Regardless of the fact that some cases are more prevalent, the wide spread of results is undeniable. The literature indicates a complex image of the relationship that exists among CD&PD and MNE performance. The fundamental queries derived from this table relate to the roots of these diversified findings.

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Three meta-analysis studies have been developed with the intention of providing insights on the moderators of the relationship. Although the study of Tihanyi et al. (2005) does not convey any statistically significant moderators, their findings are extended by the analysis of Magnusson (2008) which points out three significant sources of variation: measurement of CD&PD, firm origin and period of investigation. At the same time, Reus and Rottig (2009) advocate the importance of two moderating variables: objective vs. subjective measures of CD&PD and MNE performance. Therefore, previous meta-analysis have provided insights on only some important moderators of the relationship and based on their findings the authors exemplify the need for further investigation. In our attempt to address this and while going through the various approaches, methodologies and different empirical findings for the relationship, we follow an exploratory approach and identify various potentially important moderating variables, which are discussed next. 2.1. CD&PD approaches and measures

A large number of CD&PD measures are implemented in the literature: the cultural dimensions of Hofstede (1980); Kogut and Singh's (1988) index; the cultural values of Schwartz (1999); the GLOBE (Global Leadership and Organizational Behavior Effectiveness) dimensions of societal culture (House et al. , 2004); the "PD stimuli" of Dow and Karunaratna (2006); the country-clusters of Ronen and Shenkar (1985) which have been recently updated by the authors (Ronen and Shenkar, 2013); and

finally various subjective measures based on managerial perceptions. These are the most important empirical attempts aiming to measure CD&PD. However, regardless of their shared objective, most instruments are highly diverse and capture different aspects of the "fuzzy" concept of distance (Leung et al., 2005).

The CD&PD measure is potentially one of the most critical moderators of the relationship. Justifications for this are based on the findings on previous meta-analysis studies, as well as the numerous studies focusing on the inconsistency between the measures (Baskerville, 2003; Girard & Bertsch, 2011; Javidan et al., 2006; Shenkar, 2001; Steenkamp, 2001). According to Shenkar (2001) the existence of CD measures is illusory because the different cultural instruments mask serious problems in the conceptualization and measurement of CD&PD. The author further states that the lack of support to their hidden assumptions and the questionable methodologies used are challenging the strength of these measures as well as their conceptual character and application. More importantly, various authors, such as Glick et al. (1993), argue that researchers simply choose to employ a particular measure without acknowledging how different their results could be by implementing a different measure. Brewer and Venaik (2011), for example, indicate that the country scores of Kogut and Singh (1998) and the GLOBE project (House et al., 2004) deliver highly different results for the impact of CD on MNEs.

At the same time, we realize that in some cases authors perceive the influence of CD&PD on MNE performance in diverse ways. More specifically, some authors examine the cultural variation among the home and host nations, while others focus on the cultural diversification among the national backgrounds of firm partners. Research indicates that when MNE managers are called to elaborate on these situations, highly different results will occur for each one. Based on the arguments above, we identify the need to provide evidence of the measures' inconsistency and the diversity of results that can arise due to the inconsistency. Therefore, researchers will be able to acknowledge the critical role of selecting between CD&PD measures and the moderating role of these measures in their research findings. . Therefore we address the following question: What is the moderating role of CD&PD measure on the relationship between CD&PD and MNE performance?

2.2. MNE performance approaches and measures

At the same time, individual studies in the literature have implemented highly diversified instruments in order to measure MNE performance. Both subjective measures based on the evaluations of MNE managers, and objective measures based on financial data, such as Return on Investment (ROI), Return on Equity (ROE), Sale levels and so on, have been widely used. Reus and Rottig (2009) generated a meta-analysis on the performance determinants for International Joint Ventures (IJVs) and pointed out that for objective measures of MNE performance a positive relationship is produced while for subjective measures a negative relationship occurs. Considering the indisputable difference of these measures and the narrow attention it has received in the culture literature, our objective is to delineate their impact on

the relationship. At the same time, some papers focus on examining the performance of the mother firm whilst others examine the performance of the foreign subsidiary or the IJV/alliance/acquisition. These three different levels of measuring performance, which are equally being used in the literature, are another probable cause of diversification in literature results. Therefore we address the following question: What is the moderating role of MNE performance measure and level on the relationship between CD&PD and MNE performance?

2.3. Home and host countries

Another significant moderator of the relationship may be the origin of the firm. Individual studies have the tendency to cluster MNEs with diverse national backgrounds into the same sample or to construct generalizations based on the analysis of single-country samples (Harzing, 2004; Magnusson et al., 2008). It is therefore possible that the host nation and the geographical location of the subsidiaries also contribute to the variation of findings. Several studies deploy in their samples MNEs with subsidiaries in culturally proximate locations; hence, the actual influence of cultural difference cannot be captured (Beamish & Kachra, 2004). This moderating variable has not been examined by previous meta-analyses, despite its potential impact on the relationship between CD&PD and MNE performance. Therefore we address the following question: What is the moderating role of the origin and geographical location on the relationship between CD&PD and MNE performance?

2.4. Sector and entry mode

The MNEs' sector of operation and the entry mode into foreign nations are also potential moderators. Given the sensitivity of certain industries, such as the Food and Beverage (Filippaios & Rama, 2008), or their invulnerability, such as the high-tech (Wu & Lin, 2010), we assume that distinguishing among the industrial activities in particular sectors will reflect different levels of cultural difference. However, the majority of individual papers in the literature do not elaborate on the industrial activities in which their sample firms are engaged in, thus, the moderating impact of this potential moderator is far from being established. At the same time, some empirical studies incorporate MNEs with different entry modes, such as Wholly Owned Subsidiaries (WOS), Acquisitions or IJVs without making any distinctions despite that in some cases, MNEs choose a lower control entry mode in order to diminish high levels of cultural variation (Buckley & Casson, 1976). Examining the difference when a MNE chooses to develop new subsidiaries (WOS) or to formulate collaborations/acquisitions with other firms (IJVs/Alliances/Acquisitions) in a new market could convey interesting results for the relationship between CD&PD and MNE performance. Therefore, it is important to determine if sector and entry mode contribute to the irregularity of outcomes. Therefore we address the following question: What is the moderating role of sector and entry mode type on the relationship between CD&PD and MNE performance?

2.5. Direct or indirect relationship

Finally, some studies reflect on the direct relationship while others focus on the indirect relationship between CD&PD and MNE performance. Numerous indirect variables which impact on MNE performance and are moderated by CD&PD can be found in the literature; Yeoh (2004) finds that CD&PD positively affects social and technological learning which ultimately, positively influences MNE performance; Luo (2001) exemplifies a negative influence of CD&PD on partner cooperation which negatively affects MNE performance. Notwithstanding the fact that the direct relationship among CD&PD and MNE performance can possibly convey a more comprehensive image concerning the relationship, the indirect effect can also provide an understanding of how cultural difference can affect specific internal or external fractions of a MNE which in turn have a significant impact on overall MNE performance (Reus & Rottig, 2009). However, these two different types will lead to diverse findings for the relationship between CD&PD and MNE performance since they focus on different aspects of this relationship. It is, thus, important to examine differences among the direct and indirect approaches in order to determine if they contribute to assorted findings concerning the relationship between CD&PD and MNE performance (Reus & Rottig, 2009). Therefore we address the following question: What is the moderating role of the direct and indirect approach on the relationship between CD&PD and MNE performance?

3. Methodology

3.1. Sample and Method

The articles included in our meta-analysis were identified by a thorough search on Business Source Premier and ABI/Inform Complete by using a variety of keywords[1]. Then the reference list of each empirical paper was systematically examined. This process was reproduced for each article collected, generating a snowball methodology. Hence, this research covered a significant number of articles that could potentially be relevant in our meta-analysis. However, a common complication in relation to the formation of secondary research is the deployment of diverse measures for the same construct (Tihanyi et al., 2005). Consequently, before engaging with the data collection stage, it is imperative to select and set the criteria which form the foundation for deciding which articles to employ or to exclude. Such criteria involve the requirement of each article to provide the correlation (r) between CD and/or PD and MNE performance, the sample size and measurements used as well as to report the home and host

[1] Keywords: the first stage of our snowball methodology involved the search for research articles by using a variety of keywords such as “cultural distance”, “psychic distance”, “cultural difference”, “cultural diversity”, “national diversity”, “cross-cultural”, “performance”, “MNE performance”. Only research articles examining a direct or indirect association between CD and/or PD and MNE performance were selected.

nations, the different sectors of operation and the entry mode of sampled firms. The collected studies incorporated an extensive range of sizes from a single firm to 27,974 firms.

Before finalizing the search for articles, we went through the articles used in the previous meta-analysis of Tihanyi et al. (2005), Magnusson et al. (2008), and Reus and Rottig (2009) to confirm that, in addition to new studies, we incorporate those included in previous ones. Through this process we identified that we have 23 studies in common to Reus and Rottig (2009), 18 to Magnusson et al. (2008) and 17 to Tihanyi et al. (2005). We do not include Reus and Rottig's (2009) studies which examine the impact of CD on partner conflict, such as Xu et al. (2004) and Luo (2007), or that do not have MNE performance as a dependent variable. Additionally, previous meta-analysis examined a number of relationships rather than focusing on one; for instance Reus and Rottig (2009) also examined the relationship between commitment and MNE performance, and Magnusson et al. (2008) the relationship between entry mode and MNE performance. Therefore, since the purpose of this study is to generate an in-depth examination of the relationship between CD&PD and MNE performance we only focus on studies that report the correlation of this relationship and incorporate MNE performance as their dependent variable.

As a whole, 56 articles qualified for our meta-analysis and contained a cumulative sample of 49,387 observations. Consequently, our sample is the largest ever used; Reus and Rottig (2009) incorporated 37 studies (with a cumulative sample of 22,468 observations) that investigate the relationship between CD&PD and MNE performance, Magnusson et al. (2008) included 38 empirical papers (with a cumulative sample of 35,005 observations), while Tihanyi et al. (2005) included 7,848 observations but did not reveal the exact number of papers used in their analysis. The detailed information concerning the meta-analysis studies used can be found in Appendix 1.

The meta-analytic procedure chosen has been developed by Hunter and Schmidt in 1990 and it has been adopted by numerous authors. The difference between the meta-analysis process as suggested by Hunter and Schmidt (2004) and that proposed by others, such as Hedges and Olkin (1985) and Rosenthal (1991), is that the first emphasizes the estimation of the variability of population correlations or effect sizes (Schmidt & Hunter, 1999). During the process, firstly the mean "r", then the variance for sampling error, and finally the measurement error, are gradually adjusted for accurate results. The method is presented below:

Correlations among variables weighted by sample size:

$$p = E(r) = \bar{r} = \frac{\sum_{i=1}^{k} n_i \, r_i}{\sum_{i=1}^{k} n_i}$$

Where,

$\bar{r}$= weighted average correlation

k = the number of studies

r_i= correlation in study i

n_i= sample size in study i

The observed variance among correlations across studies:

$$\sigma_r^2 = E(s_r^2), \qquad s_r^2 = \frac{\sum_{i=1}^{k} n_i (r_i - \bar{r})^2}{\sum_{i=1}^{k} n_i}$$

The expected variance among correlations due to random sampling error:

$$\sigma_e^2 = E(s_e^2), \qquad s_e^2 = \frac{(1 - \bar{r}^2)^2 k}{\sum_{i=1}^{k} n_i}$$

And the residual variance after controlling for the expected effect of random sampling error

$$\sigma_e^2 = E(s_e^2), \qquad s_p^2 = s_r^2 - s_e^2$$

3.2. Variables

3.2.1. Dependent

The dependent variable of this analysis is the correlation (r) between CD and/or PD and MNE performance. However, during the accumulation of the studies we found that some reported more than one correlation, for instance, Luo (1999) examined the impact of culture on a variety of MNE performance indicators (ROE, ROA, Sale levels and more); hence, multiple correlations could be derived. In accordance to the previous meta-analyses of Tihanyi et al. (2005) and Magnusson et al. (2008), we also calculate the average correlation for each study when the study reports more than one. However, since for some papers the correlations were rather diverse, we also perform another meta-analysis which treats each correlation as an independent observation. The results derived from both analyses present similar outcomes, however, we have chosen to focus on the average correlations in order to produce comparisons and be consistent with previous meta-analysis studies.

3.2.2. Moderators

A large number of moderating variables, operationalising the hypotheses developed in the previous section, are incorporated in our study. The measure of CD&PD is the first variable examined, which entails the different studies using 5 different groups: Kogut and Singh (1988); subjective measures; other objective measures (such as Ronen and Shenkar (1985), GLOBE (House et al., 2004), Dow and Karunaratna (2006)); and finally combinations of objective and subjective measures. The purpose of this distinction is to examine if the use of a specific group indicates a different relationship. The measure of MNE performance is the second variable and it contains three different groups of measures (objective, subjective and combination of MNE performance measures), in order to determine whether for each group a diverse relationship emerges. The type of MNE performance and the type of cultural distance variables, test if the relationship is diversified when studies focus on examining the MNE performance of the mother firm, the foreign subsidiary or the IJV and if the cultural difference is among the home and the host nation or among the national backgrounds of partners, respectively. In addition, the type of the effect variable examines whether there is a difference among examining the direct or the indirect impact of CD&PD on the overall relationship.

The firm origin variable investigates whether different home cultures of MNEs (USA, Asia, Europe, and Worldwide) advocate a dissimilar relationship between CD&PD and MNE performance in the literature. Correspondingly, the host nation variable examines if the host nation where the subsidiary operates impacts on the nature of the relationship. In addition, the geographical location variable examines whether there is a difference in the relationship, when the subsidiaries are located inside, outside the home continent, or in both. The time period variable investigates the relationship over time by focusing on the difference among the three groups of periods (prior 1990, 1991-2000, and post 2001). It is important to note that the articles were not separated according to the date they were written, but according to the period that each paper examines. Furthermore, the sector variable contains four different subgroups; the manufacturing, the manufacturing and services, the specific sectors (such as non-financial), and all sectors (such as raw materials, manufacturing, services, retailers and more). Finally, the entry mode variable examines if the relationship is different for the group of WOS, for IJVs/Alliances/Acquisitions, or for combinations of all. Table 2 presents the main variables used in our analysis.

Insert Table 2 here

4. Results

4.1. Meta-Analysis results

The overall sample analysis (Table 3) reveals that the relationship between CD&PD and MNE performance is negative ($\bar{r}$= -0.1203). In relation to Tihanyi et al. (2005) and Magnusson et al. (2008) who found a slightly negative relationship ($\bar{r}$=-0.0351 and $\bar{r}$=-0.0401 respectively), our result for the

relationship is noticeably more negative and very similar to the one Reus and Rottig (2009) find ($\bar{r}$= -0.1219). Even though the relationship lacks adequate statistical significance, what is imperative in the meta-analysis process is the effect size, as well as the presence and the impact of moderator variables (Cafri et al., 2010). We can therefore claim that our study confirms the findings of previous meta-analysis studies on the existence of a negative relationship and indicates the existence of a significant effect.

Insert Table 3 here

Cultural distance measure

According to our first hypothesis the measure used by studies to capture the level of CD&PD that exists between nations of interest, has a significant influence on the relationship. Statistical tests reveal that all measures used in the literature are statistically significant (p=0.01), yet present highly different relationships. Studies implementing the Kogut and Singh index advocate a negative relationship ($\bar{r}$=-0.12604), while studies using other objective measures (GLOBE, Dow and Karunaratna, and Ronen and Shenkar) ($\bar{r}$=0.02249) point out a positive correlation. The relationship for subjective measures, based on the assessments of respondents, is negative ($\bar{r}$=-0.38184), while for the group involving combinations of subjective and objective measures it is positive ($\bar{r}$=0.41221). Consequently, the relationship is considerably diversified for each group of measures used in our meta-analysis, which points out the significance of this moderating variable. Table 4 presents the findings of the current meta-analysis in comparison to findings from previous meta-analyses on this subject.

Insert Table 4 here

Tihanyi et al. (2005) do not examine the impact of the type of the measure used to capture cultural distance, in contrast to the study of Magnusson et al. (2008) where there was a distinction between the individual level (subjective) and the national level (objective) measures of CD&PD. Magnusson et al. (2008) indicate that in both cases the relationship is negative. As a result, the moderating variable of CD&PD measure does not indicate diverse findings for each measure according to their findings. Similarly to Reus and Rottig (2009), we separate our sample into subjective measures, Kogut and Singh's index and other objective measures of CD&PD were each group advocates a different relationship. Consequently we argue that our findings are not only a result of the subjective vs. objective measures, but also of the use of different categories of objective CD&PD measures. Finally, the combination of subjective and objective measures is not frequently found in the literature, and has not examined by previous meta-analyses. Despite the arguments of previous researchers suggesting that such measures combined could deliver more reliable findings, only two studies identified as using this combination and this group supports a strong positive relationship.

Therefore, the extensive and on-going debate about the applicability and generalizability of subjective and objective measures is also reflected in our results. Some authors argue that it is impossible to capture the essence of cultural differences, hence, everyday behaviour and activities in a working environment may be the best solution we have. At the same time, the various limitations of the Kogut and Singh's index, which is based on the cultural dimensions of Hofstede, compels authors to turn to subjective measures. Irrespective of the extensive implementation of the implementation of this index, it has been extensively criticised in various areas. More specifically, the criticisms consist of the lack of inclusiveness, inattention towards the conceptual correspondence of the issues under examination across cultural settings, finally the out-of-date data, and most importantly the single-firm (IBM) concentration (Chow et al., 1994; Kim & Gray, 2009).

In our analysis subjective measures indicate a more negative relationship than those using Kogut and Singh, which is based on respondents' tendency to overestimate the impact of CD&PD. Managers may be highly affected by predetermined thoughts that cultural distance is bound to convey cultural complications and problems thus making "a mountain out of a molehill", which generates issues for the accuracy of surveys. Since cultural differences have various interpretations, we cannot expect that managers will share the same evaluation criteria (Soares et al., 2007; Sousa & Bradley, 2008). Therefore, it can be particularly problematic and challenging attempt with regard to its precision and truthfulness. Some support that it is unrealistic to expect that certain measures have the power to capture the actual influence of culture, while others advocate the weakness of survey-based measures to present generalizable results. These extensive controversies are mirrored in our results; therefore, the requirement for the construction of a reliable CD&PD instrument is necessary to eliminate the inconsistency this literature has been repeatedly accused for.

MNE Performance measure

We also find that the measure used to calculate the MNE performance has a significant impact on the relationship. Results are presented in Table 5. Each separate measure leads to a different relationship. The majority of individual studies in our sample use subjective measures (41 articles) to capture MNE performance. These have been obtained, in most cases, by questionnaires and assessments from the MNEs' managers. This subjective measure presents a negative relationship ($\bar{r}$=-0.138617) between cultural difference and MNE performance and is statistically important (p=0.025). On the other hand, objective MNE performance measures based on several types of financial data (implemented in 12 individual studies) indicate a positive ($\bar{r}$= 0.13511) and statistically significant (p=0.001) relationship. Finally, the combination group containing only 3 studies, were different subjective an objective measures are being implemented, points out a negative ($\bar{r}$= -0.28309), statistically significant relationship (p=0.001).

Insert Table 5 here

These findings indicate that the nature of the MNE performance measure used has a significant influence on the relationship between CD&PD and MNE performance. Previous meta-analysis studies exploring the relationship between CD&PD and MNE performance do not investigate the role of the MNE performance measure employed in each of the studies, hence, we have contributed in establishing another important controlling variable. Reus and Rottig (2009) examine the influence of subjective and objective measures of MNE performance in combination to subjective and objective measures of CD&PD and not separately as a moderator of the relationship. Therefore, our findings indicate the significance of this moderating variable and its implications for future research.

The implementation of objective MNE performance measures, based on financial data, has received criticisms relating to the complexity of collecting accurate data (Dess & Robinson Jr., 1984), as well as its inapplicability for cross-industry examinations (Dawes, 1999). Conversely, limitations concerned with the subjective assessment of MNE performance generate other complications such as the lack of impartiality on behalf of the respondent. Hence, one of the most crucial parts of examining the association among CD&PD and MNE performance is selecting among these measures. All measures have advantages as well as hindrances, thus making selection a difficult procedure for authors. However, the lack of consensus concerning the validity and applicability of CD&PD and MNE performance measures is identified as the most important source of the inconsistency in literature findings.

Authors attempting to gather information concerning the variables of MNE performance and CD&PD, often acquire them from the same respondent, which is a standard process in the literature (Wall et al., 2004). This generates a large number of issues; instead of CD&PD having a negative impact on MNE performance, it might be that low levels of performance cause overestimations of CD&PD (Magnusson et al., 2008). Hence, not only the measure of CD&PD and MNE performance impacts on the relationship, but also their combination. When subjective measures are deployed to capture both variables, the type of CD&PD has a very important role. The type of CD&PD, which distinguished if studies focus on the CD&PD between the home and the host nations or between the differences of partners' cultural backgrounds, exemplifies that such a distinction is particularly important for subjective MNE performance and CD&PD measures, since it regulates respondents' perceptions. Therefore, clarifying the CD&PD type a study focuses on, as well as forming distinctions among the entry mode type of the subsidiaries, could allow the generation of more reliable observations.

Level where MNE performance is measured

We acknowledged that CD&PD impacts the MNE performance of the mother firm, the foreign affiliate and the new IJV in a diverse manner. According to the meta-analysis findings, CD&PD has a positive influence on the mother firm ($\bar{r}$= 0.017299), a negative influence on the performance of the overseas affiliate ($\bar{r}$= -0.1554) and a positive influence on IJV performance ($\bar{r}$= 0.027013). As a result the diverse relationship for each group points out that the level of MNE performance is another important moderator. Results for the different levels are presented in Table 6.

Insert Table 6 here

The positive influence of CD&PD on the performance of the mother firm can interpreted as the advantages of having subsidiaries in culturally remote locations, such as the enhancement of knowledge, learning and experience, as well as development opportunities such as innovation, research and development activities (Gomez-Mejia & Palich, 1997). On the other hand, the negative influence on the performance of the foreign subsidiary could be understood as the result of operating in an unknown cultural setting and dealing with challenges involving the management of human resources, the adaption of promotional and marketing activities as well as being coordinated with the strategic directions set by the parent headquarters (Buckley & Casson, 1998). Finally, in the case of Joint Ventures the positive influence of CD&PD on performance can be interpreted as the advantage of having JV partners that are engaged or have knowledge of the new market, or have built experience through previous expansion strategies.

This distinction among the organizations (mother, subsidiary, IJVs) has not been examined in any previous meta-analysis studies. However, our findings point out the importance of this moderator, since it provides insights on the diverse way in which CD&PD impacts on these three performance-level types. The argument that arises is that, perhaps more research could focus on the performance of the foreign subsidiaries when examining the effect of CD&PD on MNE performance, since they appear to be those most influenced by its effect. Only 17 studies out of the total amount of 56 have focused on investigating the impact of CD&PD on the performance of foreign subsidiaries, and since our results support that it is the most culturally sensitive group, we suggest that further analysis should focus on this issue.

Firm origin

Corresponding to previous meta-analysis studies and considering the impact of the home nation on the internationalization development of a firm, we also divide the sample according to the nation (or region) of origin. The meta-analysis findings, presented in Table 7, indicate that the home continent is another important moderator of the relationship. For firms originating from the USA, the impact of CD&PD on MNE performance is positive ($\bar{r}$= 0.020209), as well as for firms born in Europe ($\bar{r}$= 0.284191). On the

other hand we find a negative relationship between cultural distance and MNE performance ($\bar{r}$= -0.173) for Asian firms. This finding is consistent to previous studies pointing out that the unique cultural contexts of Japan and China, the two most recurrently found Asian nations in this literature, have a significant influence on MNE performance (Reus & Rottig, 2009). The final group consists of individual study samples that focus on a variety of home nations from the following continents: America, Asia, Europe, Africa and Oceania. Hence it includes any of the combination from the above continents and presents a slightly positive relationship ($\bar{r}$=0.020264).

Insert Table 7 here

Tihanyi et al. (2005) and Reus and Rottig (2009) do not investigate the home nation as a moderating variable. On the other hand, the meta-analysis of Magnusson et al. (2008) divide their sample according to the home countries (or regions) of USA, Europe and Asia, however, do not include the case of multiple home continents. According to their findings, all home continents indicate a negative relationship between CD&PD and MNE performance which is in contrast to our findings. Their results suggest that while the difference among the three groups is significant, they present almost the same, slightly negative relationship (USA: $\bar{r}$=-0.0022, Europe: $\bar{r}$=-0.0375, Asia: $\bar{r}$=-0.0355), especially Europe and Asia. Conversely, our results suggest that there is significant variation among the continent were firms come from, and the highly diverse relationships presented provide further supporting evidence. Therefore, since we found that the relationship between CD&PD and MNE performance varies according to the origin of the MNE, we have contributed in establishing another important moderator for the relationship.

Geographical location of the subsidiaries

The identification of whether the subsidiaries are located inside or outside the continent of the headquarters is another important moderator. Subsidiaries located outside the home continent advocate a statistically significant (p=0.005) and negative relationship ($\bar{r}$=-0.111143), which was expected considering that firms with high multinationality are exposed in various and diverse cultures. However, the group where studies examined subsidiaries operating in the same continents as the mother firm has also presented a negative relationship ($\bar{r}$=-0.54476) thus pointing out that cultural variation exists inside continents even though firms may occasionally underestimate the CD&PD among geographically proximate countries.

Insert Table 8 here

However, this group involving subsidiaries outside the home continent lacks statistical significance. Multiple individual studies have found that in some cases the national CD&PD among nations in the same continent do not convey statistically significant results, such as Lu and Lee (2005) who examine Japanese and Taiwanese subsidiaries located in China; Lua and Hebert (2005) who focus on Japanese

subsidiaries operating in Asian developing nations and finally Mjoen and Tallman (1997) who investigate Hungarian firms in close European nations. Hence, when firms are located in culturally similar nations in the same continent, cultural distance may indicate a negative but non-significant impact on MNE performance.

Relationship over time

Time period is another significant moderator of the relationship. The analysis reveals that for samples prior to 1990 (6 studies) the relationship had been statistically significant (p=0.05) and positive ($\bar{r}$= 0.20328). On the other hand, 34 studies focused on the period between 1991 and 2000 and indicate a negative ($\bar{r}$=-0.19789) and strong (p=0.001) relationship. Finally, the third group points out that studies focusing on the period of 2001 and after, indicates a slightly positive relationship ($\bar{r}$=0.20906) which, however, lacks adequate statistical significance.

Insert Table 9 here

Tihanyi et al. (2005) do not point out any significant variations over time, while Reus and Rottig (2009) do not examine time period as a moderating variable. However, our relationship over time is somewhat consistent with the one found by Magnusson et al. (2008) particularly for the first two periods.

Entry mode

The analysis indicated that it is important to separate the sample according to entry mode, since each group indicates a diverse relationship. Interestingly, the relationship between CD&PD and MNE performance is positive for WOS ($\bar{r}$= 0.120184) and negative for IJVs/Alliances/Acquisitions ($\bar{r}$= -0.17534), suggesting that the last are required to manage more complex obstacles. IJVs deal with the cultural distance among the home and host nations, as well as the variation in the national cultural characteristics of IJV partners. Therefore, in most cases, they must overcome more compound cultural barriers rather than WOS. Results are presented in Table 10.

Insert Table 10 here

In addition, firms undertaking the costs and risks of developing a new subsidiary may place more efforts in order to diminish the negative impact of CD&PD on their MNE performance, such as acquiring culturally educated personnel (Johanson & Vahlne, 1977), thus resulting to a positive relationship, while the culture's role on the evolution of partnerships can be more intricate to regulate (Solberg, 2008). Finally, the group including combinations of entry modes, indicates towards a negative and statistically significant relationship ($\bar{r}$=-0.13303). Even though this moderator has not been examined by other studies, our findings suggest that since different modes advocate a different relationship, the moderating role of the variable of entry mode could be considered as another cause of inconsistency.

Sector

In view of the sensitivity certain sectors have towards CD(Filippaios & Rama, 2008), we find that separating the sample according to their activities in specific sectors moderates the relationship between cultural distance and MNE performance. However, a rather large number of individual papers do not include adequate information concerning the sector in which their sample firms are operating. Some explain the specific sector in which their sample is engaged while others merely mention that they belong in the general manufacturing industry. Having this in mind, we could not divide the sample into specific sectors which would be ideal and hence, we had to divide the sample into the four general groups. Results are presented in Table 11.

Insert Table 11 here

The meta-analysis results reveal that each group presents a highly different relationship between CD&PD and MNE performance and hence provides support in making sector specific distinctions. First of all, the manufacturing groups and the variety sector group indicate a slightly positive relationship between cultural distance and MNE performance. On the other hand, the group combining manufacturing and service firms demonstrates a strong and negative relationship, while the final group containing firms in other, specific sectors advocate a slightly negative relationship. Hence, the association between CD&PD and MNE performance is influenced by the operation of firms in different sectors.

Previous meta-analyses do not separate firms according to their participation in specific sectors. Our analysis indicates that making such distinctions is important since each group presents a different relationship. However, only one group has received statistical significance, which is the group containing manufacturing and service MNEs (p=0.001). Further information containing the sectors of the firms used in the different samples in the literature would allow the generation of more specific grouping which would ultimately allow the generation of more insightful observations.

Type of relationship

As a final distinction, we examine the moderating role of the type of the relationship. The first group of studies examining the direct impact of CD&PD, which contains 44 studies, supports a strong, negative and statistically significant (p=0.05) relationship ($\bar{r}$= -0.11566). The second group, containing 12 individual studies, also indicates a strong negative relationship ($\bar{r}$= -0.20737), which however is not statistically significant. Results can be found in table 12.

Insert Table 12 here

Debates in the literature do not only focus on whether the impact of CD&PD is positive or negative, but also if it is significant or not. Despite the fact that both cases indicate a negative relationship, the

indirect type could be linked to the strand of the literature suggesting a non-significant relationship between CD&PD and MNE performance. This distinction has not been made in preceding meta-analyses, even though both Tihanyi et al. (2005) and Magnusson et al. (2008) use both direct and indirect relationships in their analyses. Furthermore, Reus and Rottig (2009) only focus on the indirect impact of CD&PD on MNE performance by using a structural equation model. However, our findings indicate the importance of this moderator and its influence on the relationship.

4.2. Regression analysis

The regression analysis provides further insights into the moderating impact of the variables. Table 13 reports the results of the regression analysis and indicates that our models (1, 2, 3, 4 and 5) are statistically strong ($p < 0.01$). Models 1 and 2 are the baseline of our analysis and they incorporate the majority of the moderating variables. Their main difference is that model 1 focuses on the impact of CD&PD measures and model 2 concentrates on the influence MNE performance measures. The regression analysis points out various important moderators of the relationship and confirms the role of the measures used to capture CD&PD and MNE performance.

Similar distinctions among the different CD&PD and MNE performance measures to those in the meta-analysis process are being presented in models 3, 4 and 5. Model 3 incorporates subjective measures used in individual papers in order to capture CD&PD and MNE performance where both measures are negative and statistically significant. On the other hand, Model 4 focuses on objective measures for calculating CD and MNE performance, based on financial data for the performance and on the Kogut and Singh's index for CD. The composite index, as the most frequently used measure of CD&PD in the literature, has a slightly negative but not statistically significant effect on the relationship, while financial data as a measure of MNE performance point out a positive and statistically important effect.

Finally, Model 5 incorporates other CD&PD measures (such as GLOBE, Dow and Karunaratna, Ronen and Shenkar) which are infrequently found in the literature and the combination of objective and subjective measures for capturing MNE performance which again is particularly scarce in the collected studies. The first shows a very strong and positive effect on the relationship, while the second points out a positive but statistically insignificant effect. Hence, according to the different CD&PD measures used, the effect fluctuates from negative, to slightly negative and finally to positive, while for performance measures it diversifies from negative, to positive and finally to highly positive. Consequently, once more, these three models confirm the argument that the implementation of different CD&PD and performance measures contributes to the inconsistency in literature findings.

Insert Table 13 here

A variable used in all models is the sample size, which is found to be negative and statistically strong in almost all cases, with the exception of model 3. The impact of this variable has not been examined by previous meta-analysis studies despite of its significant role. Our results indicate that the smaller the sample size is, the more positive the relationship between CD&PD and MNE performance is. Hence, it raises the argument that when there is a limited number of MNEs being used in a study, there will be limited levels of CD&PD, thus, the actual influence of CD&PD on MNE performance cannot be accurately mirrored. Therefore, the moderating power of the sample size variable indicates that larger samples can enhance the accuracy of empirical studies' findings.

At the same time, the host nation variable and the location of the subsidiaries variable also point out a significant and positive effect on the relationship. Our findings therefore indicate that the influence of CD&PD on MNE performance is more positive when subsidiaries are located in geographically distant countries. This could be based on the rationalization that high PD does not mean increased CD (Osegowitsch & Sammartino, 2008), thus, high cultural variation exists inside in some continents despite of MNEs tendency to underestimate the CD&PD of physically proximate locations.

The type of CD&PD appears to be insignificant for our models, with the exception of Model 3. This variable seems to be negative and statistically strong for Model 3, in which subjective measures of CD&PD and MNE performance were deployed, in contrast to Model 4, in which objective CD&PD and performance measures are being implemented, where the influence is statistically insignificant. Hence, based on this finding we can assume that when respondents are asked to evaluate the effect of the national CD&PD in the origins of the partners on MNE performance, their evaluations are more diversified than those called to assess the impact of CD&PD between mother and affiliate on MNE performance. Evaluations of the first have a tendency of being more negative rather than those in the second situation. As a result, we have found that the type of CD&PD can be another important source of variation in the literature findings concerning the relationship.

In addition the type of effect is also a significant moderator of the relationship, but only for models 3 and 4, in which subjective and objective measures were implemented respectively. Hence, an additional cause of inconsistency may relate to the conceptualization of CD&PD, since some papers focus on the direct influence of CD&PD on MNE performance, while others examine how CD&PD influence several aspects of a MNE which ultimately impact on MNE performance. In both models the impact of the effect type is negative suggesting that the more indirect the conceptualization of the influence of CD&PD on MNE performance is, the more negative the relationship will be concluded. As a final point, the negative sign of the period may suggest that the influence of cultural distance is being reinforced over time. Nonetheless, even though the periods of examination, in addition to the sector of operation, negatively influence the relationship, they do not seem to have a statistical significant impact on any of the models formulated.

Overall, the regression analysis suggests that various study characteristics impact on the formulation of the relationship between CD&PD and MNE performance. Our models (Table 13), in combination to the meta-analysis results (Tables 3-12), confirm that certain variables have a crucial moderating impact on the relationship and should not be disregarded.

5. Conclusions and recommendations

By collecting and analysing all existing empirical research on the relationship between CD&PD and MNE performance, we provide insights on the most significant moderators. The most critical implication of our research is that when researchers decide on the dimensions, approaches or sample characteristics they use, they determine the nature of the relationship that will occur in their findings; for example by employing one MNE performance measure the relationship can be positive and when using a different measure the relationship is negative. Therefore, it is crucial that researchers understand and acknowledge the role of these moderators before making any generalisations about the impact of CD&PD on MNE performance.

Failure to understand and evaluate the influence of CD&PD on MNEs is the source of many business failures (Sousa & Bradley, 2008). However, the conceptual and empirical relationship between CD&PD and performance is a subject that still remains considerably underexplored (Filippaios & Rama, 2008) and regardless of the large number of studies engaged in shedding light to this relationship, they have delivered only a mixed bag of results (Ramaswamy, 1993). Our research indicates the role of the moderators on this issue. As such, we argue that further research needs to concentrate on enhancing our knowledge and understanding on the conditions which determine if the impact of CD&PD on MNE performance can be positive or negative.

Notably, the measures used to capture the CD&PD and MNE performance variables are the most profound moderators in individual studies, since some advocate a negative relationship, while others a positive. These findings can be attributed to the complications involved in the nature of cultural dimensions and instruments implemented in various articles, or even related to the use of cultural dimensions per se (Harzing & Noorderhaven, 2006; Kim & Gray, 2009). Leung et al. (2005) argue that the simplistic way in which differences between nations (CD&PD) are conceived is a crucial theoretical setback. On this issue Reus and Rottig (2009) state that by choosing to employ CD or PD a researcher may be potentially missing on important aspects of national diversity; thus the literature indicates the need to deliver a more complete conceptualization of the "distance" between nations by utilizing the distinct dimensions of both concepts.

Furthermore, the study of Avloniti and Filippaios (2014) demonstrates that CD&PD measures which are generally considered to be consistent (e.g. because they share similar dimensions), present highly diversified country scores for the same nations. Taking this into consideration along with our our meta-

analysis findings, we realise how different the relationship can be if a researcher decides to employ one measure of CD&PD over another, even if the sample and generally all sample characteristics are kept the same. Similarly, our research indicates that for different sectors, entry modes, home countries, host nations, levels of performance and regional location, the impact of CD&PD is highly diverse. This reinforces our argument that future research needs to examine in more depth how these moderators can convert the impact of CD&PD from negative to positive.

Moreover, our meta-analysis indicates that the overall relationship between CD&PD and MNE performance according to all research findings is negative. This is because CD&PD negatively influences aspects of international expansion which ultimately determine the survival of an MNE in foreign countries. More specifically, it defines the degree of adaption required to adjust to local settings (Barkema, Bell, and Pennings, 1996) and influences inner-firm collaboration, organizational learning, conflict and knowledge development and ultimately overall performance (Parkhe, 1993). For this reasons various researchers for many decades have been investigating this relationship (Lee et al., 2008). Our meta-analysis incorporating all existing empirical research on the relationship indicates the importance of shifting research focus towards identifying how the negative aspects of this relationship could convert to positive. This would offer highly valued practical implications for MNEs with high levels of international presence dealing with the high complexity cause by CD&PD.

In addition, we recommend that CD&PD should be examined with regard to other cross-national distance dimensions. Berry et al. (2010) discuss the importance of considering economic, financial, administrative and political differences in conjunction with distance. For example, the Japanese subsidiary of a US firm may be more profitable than a Brazilian subsidiary, not because the CD between Japan and USA is lower that the CD between Brazil and USA, but because the Japanese economy is larger and it is growing faster. Similarly financial, political and other factors impact on the performance of MNEs in combination to CD&PD. Therefore, as Berry et al. (2010) argue, considering these factors when examining the impact of CD on MNE performance is crucial in order to develop a more complete and accurate research. Dow and Karunaratna's (2006) PD stimuli incorporates such factors (e.g. political systems and industrial development) along with CD; consequently, we suggest that researchers should consider testing the use of these measures and avoid simply focusing on Hofstede's dimensions.

The findings of our research, as with most meta-analyses, are subject to some limitations. One of the most important relates to the issue of commensurability. Although it is reasonably simple to address variations in the sample size, it is particularly complex to deal with the conceptualizations of a subject and the composition of the methodology. Since studies are not conceptually identical it is imperative to approach on this issue with caution. Taking this under consideration, we attempted to resolve the issue of commensurability by distinguishing among 11 different aspects of an empirical examination, such as the different conceptualizations of culture and the type of relationships (direct or indirect), while

previous meta-analysis studies focused on 3 or 4. However, further research is required in order to produce more in-depth conceptual examinations or more enhanced distinctions than our own.

Meta-analysis studies, including our own, are a snapshot of a continually evolving topic and literature. Hence, the intention of our research is not to solve the problem but rather to produce a steppingstone for upcoming articles. As Cooper and Hedges (1994) note, a meta-analysis study claiming to have solved a problem is condemned to fail. Since it is a synthesis of existing findings, it cannot replace or compete with primary research; they are complementary parts of procedure which are necessary in order to generate knowledge. Our paper enables future researchers to evaluate in their own examinations how the relationship between CD&PD and MNE performance can be moderated by their choices involving sample characteristics (sample size, time period, entry mode, sector, home nation, host countries, level of MNE performance and geographical location of the subsidiaries) and variables' development (CD measure, MNE performance measure). Therefore, the outcomes of our research for the relationship between CD&PD and MNE performance and the identification the sources of inconsistency, have significant implications and point out the need for further theoretical and empirical development, particularly for the conceptualization of CD&PD and for determining how the negative aspects of CD&PD on MNE performance can be moderated.

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Table 1: Literature Findings on the Relationship

Relationship Type	Direct	Indirect	*Total No. of Articles*
Positive	**6, 10, 11, 12, 22, 25, 43, 45, 48, 49, 53**	**55**	*12*
Negative	**2, 3, 7, 13, 17, 21, 24, 26, 34, 35, 37, 38, 40, 44, 50, 51, 56**	**16, 23, 29, 31, 32, 36, 39, 52**	*25*
Non-significant	**1, 4, 5, 8, 9, 15, 18, 19, 20, 27, 28, 33, 41, 42, 46, 47, 54**	**14, 30**	*19*
Total No. of Articles	*45*	*11*	*56*

*Note: Note: Each of the numbers in the table responds to an individual article. Details of these articles are available in Appendix 1.

Table 2: Description of moderator variables

Variables	Description
Cultural Difference Measures	Distinguishes amongst Kogut and Singh, subjective measures of CD&PD, other objective measures of CD&PD (Ronen and Shenkar, Dow and Karunaratna) and combination of subjective and objective measures of CD&PD
MNE Performance Measures	Distinguishes between subjective, objective measures of MNE performance and combinations of both
Level of MNE Performance	Focusing on the performance of the mother firm, the foreign subsidiary or the IJV/Alliance/Acquisition
Firm Origin	Distinguishes among USA, Europe, Asia, and combination of home continents for the MNEs' origins
Host Continent	Distinguishes USA, Europe, Asia, and combination of home continents for the host nations
Geographical Location of Subsidiaries	Distinguishes if the subsidiaries are located inside, outside or both of the home continent
Relationship Over Time	Separates the sample according to the year of the data collection (not the publication year of the papers) into: prior 1990, between 1991 and 2000, and after 2001
Entry Mode	Distinguishes among WOS, IJVS/Alliances/Acquisitions, and combinations of all
Sector	Distinguishes between manufacturing, manufacturing and services, other, and combinations of all
Type of Relationship	Distinguishes between the direct and indirect type of the relationship between CD&PD and MNE performance
Type of Cultural Difference	Distinguishes if the CD&PD is between the home and host nation or among the partner's nationality
Sample size	Number of firms included in a study

Table 3: Overall relationship

Meta-Analysis	$\bar{r}$	No. E	$\sum n$
Tihanyi et al. (2005)	-0.0351	NA*	7,848
Magnusson et al. (2008)	-0.0401	38	35,005
Reus and Rottig (2009)	-0.0283	37**	26,927
Current paper	-0.1203	56	49,387

*NA: Not Available (Tihanyi et al. included 55 studies that included the correlation estimates between CD&PD, entry mode choice, international diversification and performance, however they did not clarify the number of studies used for the correlation between CD&PD and performance). **Reus and Rottig included 66 studies (cumulative sample of 26,927) to examine the influence of partner conflict, commitment, and hierarchical control, and CD&PD on MNE performance. Of the 66 studies, 37 involved the relationship between CD&PD and MNE performance.

Table 4: Measures of CD&PD

Meta-Analysis	Kogut and Singh (National Level)	Subjective Measures (Individual Level)	Other Measures (National Level)	Combination of Measures
Tihanyi et al.	NA, NS	NA, NS	NT	NT
Magnusson et al.	$\bar{r}$= -0.0349 No. E= 25	$\bar{r}$= -0.1984 No. E= 8	NT	NT
Reus and Rottig	$\bar{r}$= 0.0389 No. E= 22 $\sum n$= 20779	$\bar{r}$= -0.1813 No. E= 10 $\sum n$= 994	$\bar{r}$= -0.0118 No. E= 6 $\sum n$= 960	NT
Current paper	$\bar{r}$= -0.12604 No. E= 37 $\sum n$= 45698	$\bar{r}$= -0.3818 No. E= 12 $\sum n$= 1960	$\bar{r}$= 0.02249 No. E= 5 $\sum n$= 1000	$\bar{r}$= 0.41221 No. E= 2 $\sum n$= 729

* NA: Not available; NS: Not significant; NT: Not Tested

Table 5: Measures of MNE Performance

Meta-Analysis	Objective Measures	Subjective Measures	Combination of measures
Tihanyi et al.	NT	NT	NT
Magnusson et al.	NT	NT	NT
Reus and Rottig**	Combined with Kogut and Singh's index: $\bar{r}$= -0.0226 No. E= 11 $\sum n$= 5939 Combined with subjective measures of CD&PD: $\bar{r}$= -0.1529 No. E= 1 $\sum n$= 255	Combined with Kogut and Singh's index: $\bar{r}$= 0.0635 No. E= 12 $\sum n$= 15829 Combined with Subjective measures of CD&PD: $\bar{r}$= -0.1892 No. E= 9 $\sum n$= 739	NT
Current paper	$\bar{r}$= 0.138617 No. E= 12 $\sum n$= 2942	$\bar{r}$= -0.13511 No. E= 41 $\sum n$= 45926	$\bar{r}$= -0.28309 No. E=3 $\sum n$=519

*NT: Not tested. **Reus and Rottig examined the measure of performance in combination the measure of CD&PD to determine its impact on the relationship.

Table 6: Level where MNE performance is measured

Meta-Analysis	Mother Firm	Foreign Subsidiary	IJV
Tihanyi et al.	NT	NT	NT
Magnusson et al.	NT	NT	NT
Reus and Rottig	NT	NT	NT
Current paper	$\bar{r}$= 0.017299 No. E=6 $\sum n$= 969	$\bar{r}$= -0.1554 No. E= 17 $\sum n$= 39659	$\bar{r}$= 0.027013 No. E= 33 $\sum n$= 8,759

*NT: Not Tested

Table 7: Firm origin

Meta-Analysis	USA	Europe	Asia	Combination of continents
Tihanyi et al.	NA, NS	NA, NS	NA, NS	NT
Magnusson et al.	$\bar{r}$= -0.0022 No. E= 7	$\bar{r}$=-0.0375 No. E= 6	$\bar{r}$=-0.0355 No. E= 3	NT
Reus and Rottig	NT	NT	NT	NT
Current paper	$\bar{r}$= 0.020209 No. E= 5	$\bar{r}$= 0.284191 No. E= 9	$\bar{r}$= -0.173 No. E= 13	$\bar{r}$= 0.020264 No. E= 29

*NA: Not Available; NS: Not Significant; NT: Not Tested

Table 8: Location of the subsidiaries

Meta-Analysis	Inside the home-continent	Outside the home-continent	Inside and outside the home-continent
Tihanyi et al.	NT	NT	NT
Magnusson et al.	NT	NT	NT
Reus and Rottig	NT	NT	NT
Current paper	$\bar{r}$= -0.54476 No. E= 7 $\sum n$= 1465	$\bar{r}$= -0.111143 No. E= 19 $\sum n$= 42625	$\bar{r}$= -0.20361 No. E= 30 $\sum n$= 5297

*NT: Not Tested

Table 9: Relationship over time

Meta-Analysis	Relationship over time
Tihanyi et al.	NA, NS
Magnusson et al.	• Prior 1990: $\bar{r}$= 0.1051 (No. E= 3) • 1990-1995: $\bar{r}$= -0.0372 (No. E= 14) • Post 1996: $\bar{r}$= -0.0022 (No. E= 21)
Reus and Rottig	NT
Current paper	• Until 1990: $\bar{r}$= 0.20328 (No. E= 6) • 1991-2000: $\bar{r}$= -0.19789 (No. E= 34) • After 2001: $\bar{r}$= 0.020906 (No. E= 16)

*NA: Not Available; NS: Not Significant; NT: Not Tested

Table 10: Entry mode

Meta-Analysis	WOS	IJVs/Alliances/Acquisitions	Combination of entry modes
Tihanyi et al.	NT	NT	NT
Magnusson et al.	NT	NT	NT
Reus and Rottig	NT	NT	NT
Current paper	$\bar{r}$= 0.120184 No. E= 16 $\sum n$= 4267	$\bar{r}$= -0.17534 No. E= 27 $\sum n$= 5929	$\bar{r}$= -0.13303 No. E= 9 $\sum n$= 38452

*NT: Not Tested

Table 11: Sector

Meta-Analysis	Manufacturing	Manufacturing and Services	Other sectors	All sectors
Tihanyi et al.	NT	NT	NT	NT
Magnusson et al.	NT	NT	NT	NT
Reus and Rottig	NT	NT	NT	NT
Current paper	$\bar{r}$= 0.011525 No. E= 17 $\sum n$= 5364	$\bar{r}$= -0.21461 No. E= 11 $\sum n$= 31108	$\bar{r}$= -0.00313 No. E=5 $\sum n$= 3001	$\bar{r}$= 0.062038 No. E=24 $\sum n$= 11263

*NT: Not Tested

Table 12: Type of relationship

Meta-Analysis	Direct	Indirect
Tihanyi et al.	NT	NT
Magnusson et al.	NT	NT
Reus and Rottig**	NT	NT
Current paper	$\bar{r}$= -0.11566 No. E= 44 $\sum n$= 46860	$\bar{r}$= -0.20737 No. E= 12 $\sum n$= 2527

*NT: Not Tested. **Reus and Rottig used a structural equation model to infer the indirect effect of CD&PD on MNE performance. They find a positive coefficient of 0.23 but as their methodology is different than the one used in the current paper the results are not directly comparable.

Table 13: Regression results on the relationship

	Model 1	Model 2	Model 3	Model 4	Model 5
Sample size	-0.022***	-0.011**	-0.01	-0.013***	-0.014***
	(-0.006)	(-0.006)	(-0.006)	(-0.005)	(-0.005)
Cultural Difference measure	0.096*				
	(-0.053)				
• **Subjective Cultural Different Measures**			-0.235*		
			(-0.118)		
• **Kogut and Singh's index**				-0.091	
				(-0.118)	
• **Combination and Other Cultural Difference measures**					0.412***
					(-0.133)
MNE Performance measures		-0.255*			
		(-0.149)			
• **Subjective MNE performance measures**			-0.270*		
			(-0.153)		
• **Objective MNE performance measures**				0.364*	
				(-0.185)	
• **Combination of MNE performance measures**					0.65
					(-0.533)
Period of examination	-0.273		-0.255		
	(-0.167)		(-0.161)		
Home continent	-0.128	0.147			
	(-0.141)	(-0.089)			
Host continent	0.138**	0.246**		0.204***	0.244***
	(-0.068)	(-0.094)		(-0.063)	(-0.072)
Location of subsidiaries	0.411*		0.226*	0.259**	0.272*
	(-0.223)		(-0.119)	(-0.125)	(-0.145)
Sector					-0.011
					(-0.064)
Type of effect	-0.106	-0.101	-0.145**	-0.117*	
	(-0.071)	(-0.072)	(-0.068)	(-0.063)	
Type of MNE performance	0.212**	0.182*	0.218**	0.258**	0.381***
	(-0.094)	(-0.102)	(-0.089)	(-0.099)	(-0.127)
Type of Cultural Difference	-0.282		-0.340**	-0.196	-0.279
	(-0.185)		(-0.163)	(-0.175)	(-0.185)
_cons	-0.568	-1.095*	0.484	-1.475**	-2.008***
	(-0.537)	(-0.625)	(-0.358)	(-0.551)	(-0.598)
N	56	56	56	56	56
F	5.487	5.101	3.558	4.642	7.026
R	0.4209	0.2706	0.3746	0.3944	0.3836
Aic	97.189	104.112	99.495	97.694	98.689

*p<0.1, **p<0.05, ***p<0.01

Appendix 1

Table 14: Studies implemented in the meta-analysis

No.	Author	Year	Source	N	Home Continent	Host Continent	MNE Performance	Cultural Difference	Relationship sign
1	Anand, J.; Delios, A.	1997	JIBS	1,609	ASIA	M	S	K&S	NS
2	Barkema, G. H.; Shenkar, O.; Vermeleulen, F.; Bell, J. H. J.	1997	AMJ	1,493	EU	M	S	K&S	-
3	Barkema, H. G.; Vermeulen, F.	1997	JIBS	828	EU	M	S	K&S	-
4	Beamish, P. W.; Jung, J. C.	2005	MINT	261	M	ASIA	S	K&S	NS
5	Beamish, P. W.; Kachra, A.	2004	JWB	1,335	ASIA	M	S	K&S	NS
6	Bernhard, N. B.	2007	IBR	120	M	EU	S	S	+
7	Colakoglu, S.; Caligiuri, P.	2008	IJHRM	52	M	USA	S	K&S	-
8	Delios, A.; Beamish, P. W.	2004	MRI	27,974	ASIA	M	S	K&S	NS
9	Demirbag, M.; Tatoglu, E.; Glaister, K. W.	2007	IBR	145	M	ASIA	S	K&S	NS
10	Dikova, D.	2009	IBR	208	EU	EU	S	OT	+
11	Evans, J.; Mavondo, F. T.	2002	JIBS	204	M	M	S	0+S	+
12	Evans, J.; Mavondo, F. T.; Bridson, K.	2008	JIMA	102	M	M	S	K&S	+
13	Fang, Y.; Jiang, G.-L. F.; Makino, S.; Beamish, P. W.	2010	JMS	1660	ASIA	M	S	K&S	-
14	Fey, C. F.; Beamish, P. W.	2000	IBR	161	M	EU	S	K&S	NS
15	Fey, C. F.; Beamish, P. W.	2001	OrgS	40	EU	M	S	K&S	NS
16	Fryxell, G. E.; Dooley, R. S.; Vryza, M.	2002	JMS	129	M	USA	S	K&S	-
17	Geringer, M J.; Heber, L.	1990	JIBS	127	USA	USA	O+S	S	-
18	Glaister, W. K.; Buckley, J. P.	1999	MRI	73	EU	M	S	K&S	NS
19	Hassel, L. G.; Cunningham, G. M.	2004	JIAR	1	EU	EU	S	OT	NS

Table 14: (Continued)

No.	Author	Year	Source	N	Home Continent	Host Continent	MNE Performance	Cultural Difference	Relationship sign
20	Hutzschenreuter, T.; Lewin, A. Y.; Dresel, S.	2011	MRI	525	M	M	S	0+S	NS
21	Hutzschenreuter, T.; Voll, J. C.	2008	JIBS	91	EU	M	O	OT	-
22	Kessapidou, S.; Varsakelis, N. C.	2002	EBR	478	M	M	O	K&S	+
23	Lane, P. J.; Salk, J. E.; Lyles, M. A.	2001	SMJ	78	M	EU	S	S	-
24	Lin, X.; Germain, R.	1998	JIBS	94	USA	ASIA	S	S	-
25	Lu, L.-T.	2006	JAAB	165	ASIA	ASIA	S	S	+
26	Lu, L.-T.	2007	IJM	162	ASIA	ASIA	S	S	-
27	Lu, L.-T.; Lee, Y.-H.	2005	IJM	82	ASIA	ASIA	S	K&S	NS
28	Lua, J. W.; Hebert, L.	2005	JBR	720	USA	ASIA	O	K&S	NS
29	Luo, Y.	1999	JMS	21	M	ASIA	S	K&S	NS
30	Luo, Y.	2001	ASQ	282	M	ASIA	O+S	K&S	-
31	Luo, Y.	2002a	JOM	255	M	ASIA	O	S	-
32	Luo, Y.	2002b	SMJ	293	M	ASIA	O	S	NS
33	Luo, Y.	2002c	SMJ	134	M	ASIA	O	K&S	-
34	Luo, Y.	2003	JIBS	196	M	ASIA	O	K&S	-
35	Luo, Y.; Park, H. S.	2001	SMJ	113	M	ASIA	S	K&S	-
36	Luo, Y.; Park, S. H.	2004	JIBS	289	M	ASIA	S	K&S	-
37	Luo, Y.; Peng, M.W.	1999	JIBS	108	M	ASIA	O	K&S	-
38	Luo, Y.; Shenkar, O.	2002	JIM	155	M	ASIA	S	K&S	-
39	Luo, Y.; Shenkar, O.; Nyaw, M.	2001	JIBS	295	M	ASIA	S	S	-
40	Luo, Y.; Zhao, H.	2004	JIM	121	M	ASIA	S	K&S	-
41	Majorie, L. A.; Salk, J. E.	1996	JIBS	201	EU	M	S	S	NS
42	Mjoen, H.; Tallman, S.	1997	OrgSc	102	ASIA	M	S	S	NS
43	Morosini, P.; Shane, S.; Singh, H.	1998	JIBS	52	M	EU	O	K&S	+

Table 14: (Continued)

No.	Author	Year	Source	N	Home Continent	Host Continent	MNE Performance	Cultural Difference	Relationship sign
44	Ogasavara, M. H.	2010	BAR	110	ASIA	USA	O+S	K&S	-
45	Ozorhon, B.; Arditi, D.; Dikmen, I.; and Birgonul, M. T.	2008	JCEM	68	EU	M	S	S	+
46	Palich, L.; Gomez-Mejia, L.	1997	JIBS	442	M	M	O	OT	NS
47	Pangarkar, N.; Klein, S.	2004	JIMA	76	M	ASIA	S	K&S	NS
48	Pangarkar, N.; Lim, H.	2003	IBR	128	ASIA	M	S	K&S	+
49	Park, S. H.; Ungson, G. R.	1997	AMJ	168	USA	M	O	K&S	+
50	Pothukuchi, V.; Damanpour, F.; Choi, J.; Chen, C. C.; Park, S. H.	2002	JIBS	127	M	ASIA	S	K&S	-
51	Reus, T. H.; Lamont, B. T.	2009	JIBS	118	USA	M	O	K&S	-
52	Uhlenbruck, K.	2004	JIBS	170	M	EU	S	K&S	-
53	Wang, H.; Schaan, J.-L.	2008	MRI	4,558	ASIA	M	S	K&S	+
54	Wu, W.-Y.; Lin, C.-Y.	2010	JBR	1,596	ASIA	M	S	K&S	NS
55	Yeoh, P. L.	2004	IMAR	258	USA	M	S	OT	+
56	Zeira, Y.; Newburry, W.; Yeheskel, O.	1997	MRI	34	M	EU	S	K&S	-

Source: JIBS – Journal of International Business Studies; IBR – International Business Review; JMS - Journal of Management Studies; MIR - Management International Review; AMJ - Academy of Management Journal; MINT – Management International; IMAR – International Marketing Review; OrgS – Organization Studies; OrgSc – Organization Science; IJHRM - International Journal of Human Resource Management; Journal of Construction Engineering and Management; JBR - Journal of Business Research; JIMA – Journal of International Marketing; JWB – Journal of World Business; JIAR - Journal of International Accounting Research; JIB – Journal of International Management; SMJ - Strategic Management Journal; BAR – Brazilian Administration Review; ASQ - Administrative Science Quarterly; JOM – Journal of Management; EBR - European Business Review; IJM - International Journal of Management; JAAB - Journal of American Academy of Business. **Home Continent:** M – Multiple continents. **Host Continent:** M – Multiple continents. **MNE Performance:** S - Subjective measure; O - Objective measures; and O+S – Objective and Subjective measures (combination). **Cultural difference:** K&S – Kogut and Singh's (1988) index; S – Subjective measures; OT – Other objective measures (such as Ronen and Shenkar, Dow and Karunaratna); O+S – Objective and Subjective measures (combination). **Relationship sign:** - is negative; + is positive; NS – Not Significant.