

NATIONAL CULTURE COMPATIBILITY AND MERGER AND ACQUISITION  
PERFORMANCE

by

Vasiliki Nicolopoulos

A dissertation submitted to the Graduate Faculty in Psychology in partial  
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## Abstract

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Recent research has identified culture clash as one of the main reasons for the high failure rate of mergers and acquisitions (M&A). However, despite the increased rate at which companies worldwide are engaging in cross-border M&A, very few studies have attempted to isolate the effects of national culture on M&A performance. The current study used an archival research methodology to examine national culture sources of variance in M&A completion and financial performance. Specifically, a total of 204 cross-border M&A between the years of 1984 and 2004 were investigated. National culture differences were tapped using data from project GLOBE to assess the degree to which U.S. based cross-border M&A varied on the dimensions of power distance, uncertainty avoidance, institutional collectivism, in-group collectivism, assertiveness, future orientation, and performance orientation. It was hypothesized that national culture differences between the combining firms on each of the culture dimensions investigated would be related to M&A completion. This set of hypotheses was not supported by the current study. It was also hypothesized national culture differences between the combining firms on each of the societal dimensions of

culture would be related to the financial performance of the M&A (i.e., increase in Return on Assets and average stock price fluctuations). This set of hypotheses received partial support from the results of the current study. Specifically, culture differences were not found to be related to financial performance for either of the long-term measures of financial performance (i.e., ROA three years post M&A and stock price fluctuations two and three years later). However, an increase in culture differences for the societal culture dimensions of uncertainty avoidance values, institutional collectivism values, and power distance practices were found to significantly predict variation in market adjusted returns for the three days surrounding the announcement of the M&A and the first year after M&A completion. Finally, the role of national culture differences on M&A performance was found to be moderated by the macro industry (i.e., services versus manufacturing) in which the M&A were based for the societal culture dimensions of power distance and uncertainty avoidance practices, and institutional collectivism, assertiveness, and performance orientation values.

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Finally, I would like to dedicate this dissertation to my children – to my daughter Eleni and to the boys who we so anxiously await to be born. You and your father are the sources of my inspiration and gave me with the immeasurable motivation I needed to complete this degree.

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# National Culture Compatibility and Merger and Acquisition Performance

## Chapter 1: Executive Summary

## Executive Summary

External pressures for organizations to globalize and diversify have been steadily increasing throughout the past several decades (Offermann & Helman, 1997). This pressure has contributed to a rapid rate of organizational change and restructuring in both domestic and international firms. One major change initiative that has become a reality for organizations from a variety of industries worldwide is mergers and acquisitions (M&A).

Companies worldwide are increasingly responding to external pressures to globalize by engaging in M&A. Moreover, recent social, economic, and political changes, particularly in Europe, have influenced investment patterns and have led to an especially substantial increase in the number of cross-border M&A (Cartwright, 1988). Unfortunately, however, it is estimated that at best, only 50% of both domestic and cross-border M&A are successful (Cartwright & Cooper, 1996), with success typically measured in financial terms (e.g., abnormal returns to shareholders, return on assets, and return on investment). In fact, as noted by Quah and Young (2005), several management surveys on cross-border M&A in the mid-1990s concluded that the value of shares held by owners declined in more than half of the cases examined, while increases in the value of shares followed only a small proportion of all M&A (Kearney, 1999; KPMG, 1999, as cited in Quah & Young, 2005, p. 65).

Why do so many M&A fail? The selection of a suitable merger partner or acquisition target is typically dominated by financial and strategic considerations (Marks & Mirvis, 1998; Tetenbaum, 1999). As such, when the M&A fails to

achieve its pre-specified objectives, the analysis of the failure focuses on these same financial and strategic considerations. For example, the rationale of typical management studies of M&A is as follows: The degree to which merging companies share similar technologies will be directly proportional to financial performance gains. In other words, they predict that the greater the industry relatedness between merging firms, the better the financial performance of the M&A. Overall, these studies have failed to find consistently positive results.

From a behavioral science perspective, research attempting to explain more of the variance in M&A underperformance has focused on a psychological phenomenon termed *culture clash* and its impact on the financial success of both domestic and cross-border M&A. Culture clash occurs between two merging firms when members of the combining organizations become aware of their own cultures and differences between them become salient (Marks & Mirvis, 1998). These differences become magnified and a 'we'/'they' attitude develops (Marks & Mirvis, 1998), making it increasingly difficult for members of the 'new' organization to work together through the M&A integration process (Marks & Mirvis, 1998).

Preliminary studies investigating the role of culture clash in M&A (e.g., Chatterjee et al., 1992; Weber, 1996) have contributed a wealth of information to our understanding of the psychological variables that may contribute to M&A outcomes. However, there are many methodological gaps in this literature, which limit the conclusions that can be drawn. These include: an inadequate explication of culture, a heavy reliance on case studies, and a heavy reliance on

survey research to assess both culture compatibility and overall M&A performance.

It has been speculated that, when it comes to culture, different mechanisms account for the outcomes, either favorable or unfavorable, in international versus national M&A (Cartwright & Cooper, 1998). Moreover, cultural differences between nations can become a potential source of conflict that may impede the implementation of synergies and limit the benefits of a cross-border M&A. Considering the increased rate at which cross-border M&A are being engaged in, as well as their anticipated effects on the global economy (Ghemawat & Ghadar, 2000), it is important that we begin to tease out the *unique* effects of national culture on the successful integration of such alliances. Unfortunately, even today empirical studies of the role of culture in international M&A “remain a rarity, perhaps due to the difficulty of obtaining large samples from multiple countries” (Weber, Shenkar, & Rahev, 1996, p. 1215). In fact, with few notable exceptions (e.g., Calori, Lubatkin, & Very, 1994; Very, Lubatkin, & Calori, 1998), studies of culture clash in the United States have collectively either ignored or been relatively dismissive of the issue of national culture (Gersten, Soderberg, & Torp, 1998). The current study is the first known attempt to understand the unique effects of national culture on the financial performance of cross-border M&A, using an archival research methodology to address some of the limitations in the current literature.

Introduction

Chapter 2

## National Culture Compatibility and M&A Performance

During the past several decades, research in organizational science has focused on the study of the individual employee, devoid of a general cultural context; a focus which although important in its own right, has contributed to the gap in our understanding of cultural and national differences in people's values and beliefs and how these differences may affect work behavior and organizational successes or failures (Early & Erez, 1997). The increased organizational significance of rapid environmental changes, such as the globalization of the marketplace, has highlighted the importance of expanding our cross-cultural research to include a better understanding of complex organizational level phenomena.

Increases in marketplace globalization and worldwide competition have made cross-cultural interactions in the workplace the norm rather than the exception. Employees of many organizations, particularly those of large multinational corporations, frequently have to work with, or under the leadership of, members of other national cultures. "As businesses continue to venture into global markets and their personnel become more international, corporate survival will increasingly depend on understanding the impact of cultural background on organizational behaviors" (Offerman & Hellmann, 1997, p. 342).

As stated previously, external pressures for organizations to globalize and diversify have been steadily increasing throughout the past several decades (Offerman & Hellman, 1997). Examples of external pressures include technological advances, increased competition, increased demand for product

and service goods, and the economic integration of the European Union (Sudarsanam, 2004). This pressure has contributed to a rapid rate of organizational change and restructuring in both domestic and international firms. As a result, top executives are increasingly being expected to initiate and manage organizational change initiatives in order to ensure corporate survival (Offermann & Hellman, 1997). One major change initiative that has become a reality for organizations from a variety of industries worldwide is mergers and acquisitions (M&A).

M&A have been the dominant mode of internationalization during the last decade (Cartwright & Cooper, 1996). Despite other methods available to corporations to expand and serve an overseas market with its products or services (e.g., exporting from home or licensing an overseas company to produce the goods), M&A have become the dominant mode of entry into a foreign market (Sudarsanam, 2004). In fact, by 1999 M&A constituted over 83% of the direct foreign investment, and were valued at \$720 billion, up from 52%, valued at \$75 billion in 1987 (UNCTAD, *World Investment Report 2000*, p. 14). M&A have become such a common business practice that as noted by Ghemawat and Gadder (2000), you cannot look at the front pages of *the Wall Street Journal* or the *Financial Times* without seeing yet another M&A in the headlines. Examples are not limited to specific industries. For example, in the oil sector Exxon acquired Mobil and BP merged with both Amoco and Atlantic Richfield (Ghemawat & Gadder, 2000). In the automobile industry, Daimler-Benz purchased Chrysler, Ford took over the automobile operations of Volvo, and

Renault acquired a significant stake in Nissan (Ghemawat & Gadder, 2000). Not only has the number of M&A increased dramatically within the last decade, the amount of money companies are spending to keep up with the trend is unprecedented. In fact, although M&A have happened in waves over the last 100 years, the most recent wave of the 1990s saw an unprecedented increase in value, with M&A in the U.S. rising from \$200 billion in 1992 to \$1.75 trillion in 1999. This remarkable trend was paralleled in Europe, with the value of M&A deals rising to \$1.5 trillion at its peak in 1999 (Sudarsanam, 2004). Although the recent stock market crash temporarily slowed down M&A activity, as of October 2003, the rate and value of M&A is back on the rise, according to recent data provided by Thomson Financial Services (*Business Week*, November, 2003).

Companies worldwide are increasingly responding to external pressures to globalize by engaging in M&A. Despite overwhelming evidence to the contrary (e.g., Calori, Lubatkin, & Very, 1994; Cartwright & Cooper, 1993b; Weber, Shenkar, & Raveh, 1996), it is generally assumed that the best way for a company to gain competitive advantage in today's global marketplace is to succumb to the pressure of cross-border M&A. In fact, the overwhelming feeling among S&P 500 companies across industries is that "cross-border M&A are a do-or-die proposition: If you want to survive, let alone thrive, you must be one of the world's biggest players" (Ghemawat & Gadder, 2000, p. 65).

Many reasons are provided in the management literature on why companies ultimately decide to combine forces, both domestically and internationally (for a detailed discussion see Marks & Mirvis, 1998). However,

regardless of the specific reason given, “the overarching [motivation] for combining [operations] with another organization is that the union promotes attainment of strategic goals more quickly and inexpensively than if the company acts on its own (Marks & Mirvis, 1998, p. 6). That is, it is generally assumed that a M&A will promote synergy, especially in the case of related or horizontal M&A (i.e., M&A between firms operating in the same industry sector) because “two plus two equals five” (Cartwright & Cooper, 1993a). However, the general consensus in the management literature is that most M&A do not succeed in that they fail to attain their stated financial objectives (Cartwright & Cooper, 1996; Marks & Mirvis, 1998).

As stated previously, M&A failure has been typically analyzed from a financial or strategic management perspective. Overall, management studies in M&A have failed to find consistently positive relationships (Chatterjee, 1986; Lubatkin, 1987; Shelton, 1988; Singh & Montgomery, 1988). This may be due to methodological flaws (e.g., an inadequate explication of acquisition performance, with the majority of these studies using self-report measures to assess financial performance), or to the fact that important variables were not adequately tapped (i.e., a missing variables problem). Although future research is needed to clarify the results, this line of research typically concludes that disappointing financial results are due to (1) an over-inflated purchase price; (2) financial mismanagement; (3) lack of strategic fit between the companies; and (4) unpredictable fluctuations in the market or the economy (Cartwright & Cooper, 1993b).

Recently, another stream of research has emerged in the organizational theory and psychology literatures, which has attempted to explain some of the variance in performance of M&A using measures that tap the degree of cultural fit between the merging organizations (e.g., Cartwright & Cooper, 1996). That is, “as the inadequacies of more traditional explanations of merger failure are being recognized, there is a significant revival of interest in the human aspect of the phenomenon and its role in determining merger outcomes” (Cartwright & Cooper, 1993a, p. 58). In fact, as noted by Cartwright and Cooper (1996), from a behavioral science perspective, M&A underperformance can be explained by investigating factors relating to partner selection and lack of cultural fit, the way the integration or acculturation process is managed or mismanaged, and the negative response of employees to such wide-scale organizational change.

As aforementioned, research that has begun to look at this issue has focused on a psychological phenomenon termed *culture clash* and its impact on the financial success of both domestic and cross-border M&A. Once again, culture clash reaches its peak when employees of both organizations begin to develop debilitating stereotypes of the members of the opposing culture, resulting in put-downs and attributions of inferiority that increase the reluctance of members of the ‘new’ organization to work together through the *integration* process (Marks & Mirvis, 1998). Integration is the process of combining the strategic and human elements of the merging organizations into a new combined organization. From a psychological perspective, integration typically refers to the successful imposition of the existing culture of the acquirer or dominant merger

partner on the other rather than the fusion or blending of the two (Gersten, Soderberg, & Torp, 1998). It has been suggested that the inability to successfully integrate the human resources and the respective cultures of the combining organizations (i.e., the process of acculturation) is one of the main problems encountered in the management of the post-M&A integration process (Cartwright & Cooper, 1993; Marks & Mirvis, 1998).<sup>1</sup> The premise this paper will focus on is the integration problem of culture clash and its role in determining M&A outcomes.

Academic research on culture clash is based on the following logic: Unlike earlier M&A waves in history (e.g., the 1960s), the more recent waves of the 1980s and 1990s were dominated by combinations between companies in similar rather than unrelated business activities (Cartwright & Cooper, 1993), requiring the integration of some or all of the human resources involved. Compared to unrelated M&A, related M&A present a situation where there is a greater degree of overlap and redundancy in human resource functions, as well as a greater degree of contact between key members of the combining organizations (Marks & Mirvis, 1998). As such, it has been suggested that compared to M&A between firms in unrelated industries, the financial success of M&A in related industries is heavily contingent on the successful integration of the human resources of the combining firms (Cartwright & Cooper, 1993b; Porter, 1987). Clearly, empirical research is needed to test the veracity of this claim.

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<sup>1</sup> Other problems that have been found to pose a problem in the management of the post-M&A integration process include a rigid and unrealistic program of integration (Haspeslagh & Jemison, 1991), the lack of clarity in the integration plan (Hunt, Lees, Grumbar, & Vivian, 1987), and the inability to integrate the information systems and other technical aspects of the combining organizations (Buck-Lew, Wardle, & Pliskin, 1992).

Preliminary studies investigating the role of culture clash in M&A (e.g., Chatterjee et al., 1992; Weber, 1996) have contributed a wealth of information to our understanding of the psychological variables that may contribute to M&A outcomes. However, as will be demonstrated in the review of these studies, there are many methodological gaps in this literature that need to be addressed. Adding to the methodological limitations of the current academic research investigating the role of culture clash on M&A performance is the fact that there is little agreement among theorists as to what exactly is meant by the term “culture.” That is, “while lack of cultural fit has been frequently mentioned as a potential factor in M&A failures relatively little has been done in terms of specification and operationalization of the measure” (Weber & Schweiger, 1992, p. 1215). In fact, a major problem in the literature today is the fact that “culture fit and culture compatibility are well-used but ill-defined expressions” (Cartwright & Cooper, 1993a, p. 60). Also, corporate and national cultures are referred to in the literature as two separate and distinct constructs each influencing organizational practices and the values of their members in very different and important ways (House et al., 1999).

Given the growing occurrence and significance of cross-border M&A and the limitations of the current research in thoroughly understanding the reasons that so many carefully planned M&A fail to achieve their objectives, it is imperative that academic research begins to focus on explaining more of the variance of M&A financial performance. Culture clash has been identified as a possible alternative explanation for M&A failure and is increasingly credited in the

business literature as a potential contributor to M&A outcomes. However, to date little empirical research has been undertaken to systematically verify this claim. Although case studies have given us some valuable, in-depth information on the reasons for which M&A fail (succeed), these “studies are limited in scope and have not attempted to test relationships empirically across a broad sample of acquisitions” (Larsson & Finkelstein, 1999, p. 2). The current study attempts to contribute to our understanding of the role that national culture clash may play in the bottom-line (i.e., financial) performance of M&A.

First, a more detailed discussion of culture and the taxonomy that will be used to measure national culture in the proposed investigation will be presented. This will be followed by a review of the current M&A literature on culture clash. Finally, the current study, as well as the specific hypotheses that were investigated will be outlined.

## Defining National Culture: Selected National Culture Taxonomies

### Chapter 3

### Defining National Culture: Selected National Culture Taxonomies

There is no consensus among anthropologists on “what culture is, what it means, what its characteristics are, what it is composed of, what it does, or how it should be studied” (Sackman, 1991, p. 8). Although a number of definitions of culture exist, most of them commonly refer to culture as a “set of important assumptions (often unstated) that members of a community share in common” (Weber, 1996, p. 1183). Therefore, on a very broad level, all cultures include unstated assumptions about the way that the world works. Members of a culture believe that their way of thinking is obviously correct, and need not be discussed (Triandis, 1998). A culture shapes the core values and norms of its members. These values and norms are shared by members of specific cultures and may be very different from those that are shared by members of opposing cultures. The essential elements of cultures (e.g., values, norms, assumptions) are transmitted from one generation to the next through the social learning processes of modeling and observation, as well as through the effects each person experiences as a result of his or her actions (Bandura, 1986).

Hofstede (1997) used the metaphor of culture as the software of the mind. This software differs across cultures, and people interpret the same cues in different ways depending on the cultural code that they use. In contrast, the hardware of the mind is universal, and all people make sense of the environment and of themselves by a mechanism of self-regulatory processes (Bandura, 1986; Kanfer, 1990). As stated by Bandura (1986) self-regulatory processes exist within each of us that aim at developing and maintaining a positive representation of the

self. The criteria for self-evaluation are determined by both personal and social factors. Personal criteria reflect individual difference characteristics, whereas social criteria reflect cultural values and are shared by all members of the same culture. Variation in cultural values leads to a variation in the criteria that people use to evaluate whether a situation is self-enhancing (Erez, 1997). For example, whether a person views initiatives by organizations to introduce a more participatory style of leadership positively or negatively will be influenced greatly by the values that are characteristic of his or her national culture. In societies that value a more equal distribution of power (e.g., the U.S.), participation in decision-making and other employee empowerment initiatives will be viewed more positively. However, in societies that value more centralized power (e.g., China) such initiatives will be viewed negatively and will probably be ineffective (Offerman, 1997; Offermann & Hellman, 1997).

Every group whether in a corporate or other setting, has a unique culture that is shaped by its members' shared history and experiences (Schein, 1992). That is, culture manifests itself on different levels and as individuals we will be members of a number of different cultures throughout the course of our lifetime. On the broadest level we are all members of a particular national culture. According to Hofstede (1999) values are shaped early in our lives, through family, school, and peers. "After the age of 12 such values are firmly imprinted and hardly changeable" (Hofstede, 1999, p. 39). National culture plays a significant role in shaping the values that our social networks instill in us. The degree to which this happens is somewhat dependent on the homogeneity of the

culture in which we are raised. That is, we can expect less variability in reported values in “tight” cultures such as Japan than in “loose” cultures such as the U.S. As will be demonstrated in the following discussion, considerable differences have been found in the values of people across nations.

### *Hofstede’s Taxonomy of National Culture*

The first to measure differences between people as a result of national culture in a work context using a systematic method of scientific measurement was Geert Hofstede. Hofstede (1980) worked with an existing data bank of responses from matched populations of 116,000 IBM employees in 64 countries, representing a wide variety of occupational and demographic backgrounds. The data bank consisted of answers to two questionnaires that were designed to assess employee values and their perceptions of the work situation. Experts translated the surveys used to collect the data into 20 different language versions.

A factor analysis conducted by Hofstede of mean responses was based on a sample size of 53 (40 initial countries and 13 additional regions with enough employees to provide stable means) and yielded four largely independent dimensions that seemed to explain differences among national value systems. These were labeled "individualism" versus "collectivism", "power distance" (large versus small), "uncertainty avoidance" (strong versus weak), and “masculinity” versus "femininity." A subsequent study on student populations from 23 countries using a survey designed by Chinese scholars revealed a fifth meaningful dimension independent of the four others (Hofstede & Bond, 1988). This fifth

dimension encompasses the national differences of a short-term versus a long-term time orientation in life and work.

Since the time of Hofstede's original research, a number of researchers have expanded his work as well as modified the constructs he originally specified. For example, Triandis (1993, 1995) noted that of the five dimensions discussed above, collectivism-individualism and power distance have received the most attention in the social science literatures. They also seem to be the most relevant in explaining the variation in effectiveness of different organizational practices as a function of national culture. Triandis used the term "cultural syndromes" to refer to a set of well-established psychological constructs that can help develop a clearer understanding of cultural differences. He defined "cultural syndrome" as a shared pattern of attitudes, beliefs, self-definitions, norms, and values that is organized around a common theme (Triandis, 1996). Examples of cultural syndromes include "complexity," "tightness," "vertical" versus "horizontal" cultures (power distance), and "individualism" versus "collectivism."

More recently, a group of researchers (i.e., House et al., 2004), as part of the first phase of a four phase project entitled "The Global Leadership and Organizational Behavior Effectiveness Research Program" or project GLOBE, expanded the work of Hofstede (1980) as well as other researchers (e.g., Hofstede & Bond, 1988; McClelland, 1980) and developed societal and organizational measures of culture and leader attributes that they feel are appropriate to use across all cultures. The first phase of Project GLOBE led to

the establishment of nine dimensions of societal culture and nine isomorphic dimensions of organizational culture. The GLOBE dimensions of societal culture, as well as the theoretical derivation of each will be discussed in more detail, because they reflect the taxonomy of national culture that will be used to investigate culture clash in the current investigation.

#### *Project GLOBE's Taxonomy of National Culture*

The current study focuses on understanding the role of national culture on the financial performance of cross-border M&A. As such, the emphasis in this discussion will be to further define the national culture construct by outlining the specific culture taxonomy that will be used to operationalize it. Therefore, the following discussion will begin with a brief review of the origins of each of the GLOBE culture constructs.

The investigators of Project GLOBE refined Hofstede's four original dimensions into six unidimensional constructs: power distance, uncertainty avoidance, collectivism I (institutional collectivism), collectivism II (in-Group collectivism), gender egalitarianism, and assertiveness. The first two: power distance and uncertainty avoidance, are identical to those proposed by Hofstede (1980).

Mulder (1971) initially conceptualized the construct of *power distance*, by investigating the power differential between superiors and subordinates. Specifically, Mulder coined the term power distance to mean the degree of inequality in power between a less powerful individual and a more powerful individual, both of whom belong to the same social system (Mulder, 1977).

Hofstede (1980) advanced the study of power distance to the national (or societal) level of analysis through his IBM study. Project GLOBE investigators adopted Hofstede's definition of power distance in their study and define power distance as "the degree to which members of an organization or society expect and agree that power should be shared unequally" (Carl, Gupta, & Javidan, 2004). Two aspects of power distance – cultural practices and cultural values were tapped by the GLOBE study. The derivation of these two scales for each culture dimension by investigators of Project GLOBE will be discussed shortly.

Power distance was found by Project GLOBE to be the least desirable, but most prominent feature of social practices in countries around the world (Carl et al., 2004). Specifically, power distance practices scores ranged from 3.89 for Denmark to 5.80 for Morocco on a scale of 1 to 7 (1=low power distance practices, 7=high power distance practices), with 55 of the 62 countries surveyed clustering into the two highest power distance practices bands. Results for power distance values were in stark contrast to those for power distance practices. That is, although the majority of respondents reported that their societies had practices in place that supported a large distribution of power distance, they also reported preferring a more equal distribution of power. This was reflected in the distribution of scores for power distance values, which ranged from 2.04 for Colombia to 3.65 for South Africa. Researchers interpreted these findings to suggest that the strong perceptions of power distance and the general consensus against power distance in value terms indicate a strong existence of power distance structures that are universally disliked (Carl et al., 2004).

The construct of *uncertainty avoidance* has its roots in the organizational behavior literature, but was initially formally conceptualized by Cyert and March (1963) as an organizational attribute (House & Javidan, 2004). Hofstede (1980) extended the concept of uncertainty avoidance to explain behavior at the societal level of analysis. That is, in his IBM study, he found that the respondents in the countries sampled varied to the extent that they tolerate ambiguity and the unpredictability of future events. Members of societies that do not tolerate uncertainty take steps to reduce it, by creating coping mechanisms to handle the anxiety brought about by excessive uncertainty (Hofstede, 2001). In general, the construct of uncertainty avoidance is used to explain the extent to which a society, organization, or group relies on social norms, rules, and procedures to alleviate the unpredictability of future events (De Luque & Javidan, 2004). This is the definition that the GLOBE study adopted to measure the degrees of uncertainty avoidance in the societies included in their sample. Specifically, “uncertainty avoidance involves the extent to which ambiguous situations are threatening to individuals, to which rules and order are preferred, and to which uncertainty is tolerated in a society” (De Luque & Javidan, 2004, p. 602).

The next two GLOBE national culture constructs, *collectivism I* and *collectivism II* reflect separate aspects of the individualism-collectivism continuum proposed by Hofstede (1980). The constructs of individualism and collectivism are the most widely discussed and empirically investigated of all constructs in the cross-cultural psychology literature. They have their roots in ancient philosophy and religion. At the societal level, individualism and collectivism were initially

discussed and studied by sociologists, such as Durkheim (1933) and Parsons (1949). Empirically, two of the first researchers to study individualism in an ethnographic comparative study on value orientations in five communities were Kluckhohn and Strodtbeck (1961). Hofstede (1980) was the first to thoroughly operationalize the construct of societal individualism-collectivism in an organizational setting using findings from his IBM cross-national study. He defined individualism as “societies in which the ties between individuals are loose; everyone is expected to look after himself or herself and his or her immediate family” (Hofstede, 1980, p. 51). On the other hand, collectivism as the opposite of individualism “pertains to societies in which people, from birth onwards are integrated into strong cohesive in-groups, which throughout people’s lifetime continue to protect them in exchange for unquestioning loyalty” (Hofstede, 1980, p. 51). Triandis (1994, 1995) expanded the study of and refined the individualism and collectivism constructs. He concluded that not all individualistic cultures are the same and not all collectivistic cultures are the same, and that cultures can be further differentiated within this broad dimension. For example, as was noted above, Triandis (1993, 1995) and Triandis and Gelfand (1998) found that the most important attributes that distinguish between different kinds of individualism and collectivism are the societal emphasis on horizontal (low power distance) and vertical (high power distance) social relationships.

The GLOBE project advanced the study of the multidimensionality of the individualism and collectivism constructs by investigating both institutional

collectivism (collectivism I) as well as in-group collectivism (collectivism II) (Gelfand, Bhawuk, Nishii, & Bechtold, 2004). At the onset of the project, a set of items was developed designed to tap collectivism in general. However, a factor analysis of the items revealed two meaningful and separate dimensions (House & Javidan, 2004). *Collectivism I* was defined as the degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action. *Collectivism II* was defined as the degree to which individuals express pride, loyalty, and cohesiveness in their organization and families (House & Javidan, 2004, House et al., 1999).

The next two GLOBE culture constructs – gender egalitarianism and assertiveness have their roots in Hofstede’s (1980) masculinity/femininity dimension. Project GLOBE investigators found it necessary to separate Hofstede’s masculinity/femininity dimension into two separate constructs, and to develop their own measures of them, because as noted by House and Javidan (2004), Hofstede’s measure of masculinity is confounded by items that seem to be irrelevant in the concept of masculinity, and therefore appears to measure multiple constructs. In his study, Hofstede (1980) labeled his dimension masculine/feminine simply because it is the only dimension on which men and women scored differently. In order to address some of these concerns, the GLOBE study theoretically conceptualized two separate constructs: gender egalitarianism and assertiveness.

*Gender egalitarianism* at its core is a construct, which reflects societies' beliefs about whether biological sex should determine the roles that men and women play in every aspect of their lives. As such, societies with greater gender egalitarianism rely less on biological sex to allocate roles, whereas those with lower gender egalitarianism rely heavily on biological sex to allocate roles (Emrich, Denmark, & Den Hartog, 2004). Gender egalitarianism is defined by the GLOBE study as the degree to which a collective minimizes gender inequality (House et al., 1999).

The cultural dimension of *assertiveness* received very little attention in the cross-cultural psychology literature until recently (Den Hartog, 2004). As a national culture construct, it reflects the degree to which a society encourages its members to be assertive, aggressive, and tough in their pursuits and social relationships, or on the contrary, if they are expected to be nonassertive, or nonaggressive (Den Hartog, 2004). The construct of assertiveness grew in part from Hofstede's (1980) masculinity/ femininity dimensions. The masculine component of Hofstede's dimension reflected the degree to which men in a society are expected to be tough and assertive. His femininity component reflected some of the nurturing aspects of the GLOBE conceptualization of a nonassertive society, as well as some of the components that were incorporated into the gender egalitarianism dimension of the GLOBE study.

The last three dimensions of culture proposed by Project GLOBE investigators are also extensions of prior research. These are future orientation, performance orientation, and humane orientation. *Future orientation* is derived

from a study conducted by Kluckhohn and Strodtbeck (1961) on the past, present, and future temporal orientation of people within a society, as well as in part from the dimension, which Hofstede and Bond (1988) initially referred to as Confucian Work Dynamism and later as Long-Term Orientation of a society (Hofstede, 2001). Project GLOBE defines future orientation as the extent to which individuals engage in future oriented behaviors (e.g., delaying gratification, planning, and investing in the future) and are rewarded for these in their society (House et al, 1999). Societies that are low in future orientation more often live in the present, do not worry much about the future, and are more spontaneous. Societies that are high in future orientation are more careful about planning their daily and future activities, and are more likely to have future aspirations and to formulate ways to fulfill these aspirations (Ashkanasy, Gupta, Mayfield, & Trevor-Roberts, 2004).

The GLOBE societal culture dimension of *performance orientation* was derived from McClelland's (1961) work on need for achievement as well as aspects of Hofstede and Bond's (1988) work on Confucian dynamism. It reflects the degree to which a collective encourages and rewards group members for performance improvement, innovation, and excellence (House et al., 1999; Javidan, 2004). Amongst other things, societies that are higher in performance orientation value training and development, value and reward performance and individual achievement, place little emphasis on age in promotional decisions, and have a sense of urgency (Javidan, 2004). On the other hand, societies with low performance orientation, value societal and family relationships, emphasize

loyalty and collaborative performance, and place a strong value on seniority and experience (Javidan, 2004). Performance orientation did not receive much attention in the cross-cultural psychology literature until the inception of the GLOBE project.

The cultural dimension of *humane orientation* has its roots in Kluckhohn and Strodtbeck's (1961) study of the dimension of Human Nature as Bad and Human Nature as Good, as well as McClelland's (1985) study of the need for affiliation, and Putnam's (1993) study of on the civic society. According to Triandis (1995), societies high in humane orientation are characterized by a strong value orientation towards altruism, benevolence, kindness, love, and generosity. The GLOBE project further advanced the study of the dimension of humane orientation at the societal level of analysis, and defined it as the degree to which a collective encourages and rewards individuals for being fair, altruistic, generous, caring, and kind to others (House et al., 1999). Specifically, this dimension is manifested in the way that people treat one another and in the social programs institutionalized in a given society (Kabasakal & Bodur, 2004). Included in the GLOBE study of humane orientation is the implicit relationship between quality of life and social relations (Kabasakal & Bodur, 2004).

At the completion of this first phase of the project, House et al. (1999) report finding high within-culture and within-organization agreement and high between-culture and between-organization differentiation with respect to the above nine dimensions of national culture and the nine isomorphic dimensions of organizational culture.

### *Advantages of the GLOBE National Culture Taxonomy*

It would probably be safe to say that Hofstede (1980) can be credited for the development of the most widely cited national culture taxonomy in the social sciences literature to date. One limitation of his work, however, is the fact that his taxonomy is based on results collected in a single multinational organization (i.e., IBM). Recognizing this fact, project GLOBE investigators sought out to extend his work by collecting data from multiple organizations throughout the world ( $n=951$ ) representing multiple industries (e.g., telecommunications, food services, and financial services). One of the original goals of the GLOBE project was to verify if in fact societies throughout the world varied significantly on some empirically identified value dimensions. Specifically, investigators of project GLOBE set out to determine if after thorough examination of the countries included in their sample, a grouping of cultural clusters emerged that, like Hofstede's (1980) would be helpful in summarizing intercultural similarities and differences in values and practices (Gupta, Hanges, & Dorfman, 2002).

The investigators of Project GLOBE used both obtrusive (questionnaires) and non-obtrusive methods to evaluate the national cultures represented in their sample (See House et al., 1999 for examples of non-obtrusive items.) In fact, compared to previous cross-cultural research of similar phenomena, a primary strength of the GLOBE project is that the researchers did not make assumptions as to how to best measure cultural phenomena. Rather, multiple measurement methods were used in order to test which methods are the most appropriate and meaningful to be used in cross-cultural research (House et al., 1999).

Specifically, GLOBE project investigators tapped national culture values through the development and validation of both questionnaire and unobtrusive measures, giving the research a greater degree of empirical support. The use of multiple methods also strengthens the construct validity of the research (Cook & Campbell, 1979).

GLOBE project investigators modeled the work of Schwartz (1992, 1994) and used a theory-driven (construct-oriented) approach to develop their culture scale, whereas Hofstede (1980) used an empirical (criterion-referenced) approach to develop his culture scale. As noted by Hanges and Dickson (2004), although each is subject to its own set of biases and limitations, when used correctly, the theory-driven approach yields scales with more sound psychometric properties (e.g., unidimensionality and high internal reliability: Nunnally & Bernstein, 1994). More specifically, in his study, Hofstede (1980) asked employees of IBM to provide answers to a series of items that were part of a large internal organizational survey designed to tap employee attitudes. Responses to the items were later used to develop a scale of variables reflecting national culture value dimensions, although this usage was not the original purpose of the investigation. That is, statistical analyses (e.g., factor analyses) were run post-hoc, which yielded the four original national culture value dimensions that have been since widely used in investigations of national culture variability in the social science literature (i.e., individualism/collectivism, power distance, masculinity/femininity, and uncertainty avoidance).

Hanges and Dickson (2004) note that there are several problems with using this approach to develop a scale. First, although the scales usually correlate significantly with other variables, it is difficult to separate the actual construct being measured using an empirically driven scale from other constructs that are also being measured by such scales. Also, the fact that such scales are not typically written to assess the construct of interest makes it difficult to correct for potential biases that may be built into the items. “Indeed these biases might result in a mislabeling of the underlying construct or could potentially confound the results of any study that uses the scale” (Hanges & Dickson, 2004, p. 3). Finally, although these types of scales (e.g., Hofstede’s, 1980) do correlate with other variables that are designed to tap similar constructs, they typically have poor psychometric properties, such as low internal reliability and multidimensionality (Nunnally & Bernstein, 1994).

In order to avoid such problems, the GLOBE project used a theory-driven (construct-oriented) approach to develop their culture scales. Theory-driven approaches start with an identified construct or set of constructs that have been thoroughly operationalized prior to the development of the scale. For example, in order to develop his values survey, Schwartz (1992, 1994) reviewed the empirical, philosophical, and religious literature of several cultures. He then identified a number of values he believed to be universally relevant (Smith & Schwartz, 1997). These values were then grouped into 10 categories and a theory of interrelations between them was specified and used to construct his ‘values’ survey.

According to the theory-driven approach to scale development, essential characteristics and non-essential characteristics, as well as examples and non-examples of the constructs being investigated are provided in order to operationalize the construct at the onset of the investigation. The target populations and any possible biases associated with them are also specified prior to the statistical analyses (Nunnally & Bernstein, 1994). In order to do so, the literature is thoroughly reviewed and a theory of the inter-relations of the constructs for which the survey will be written is developed (e.g., Schwartz, 1992, 1994). After the constructs are specified, statistical analyses such as confirmatory factor analyses are performed in order to confirm the hypothesized structure of the scale.

A final strength of the GLOBE project taxonomy of societal (national) culture is related to the derivation of the items that were used by GLOBE investigators to tap culture. Specifically, two manifestations of culture were tapped: cultural attributes as reflected in a collective's values ("what should be") and cultural institutional practices ("what is") as reflected in the common behaviors, institutional practices, proscriptions and prescriptions of a collective. Hofstede's (1980) scales do not differentiate cultural values from cultural practices (Hanges & Dickson, 2004). In fact, Hofstede (1999) argues that a major distinction between national and organizational culture is that differences in national culture are reflected as differences in the values of members of different societies, whereas differences in organizational cultures are reflected as differences in the business practices experienced by members of various

organizations, not differences in values. Project GLOBE investigators empirically tested this hypothesized distinction by using organizational and societal manifestations of the same questionnaire items to reflect both shared values and institutional practices. They found that in their sample, the distinction did not hold and concluded that accurate definitions of organizational and national cultures should contain both intangible (e.g., values, beliefs, etc.), as well as tangible (e.g., practices, policies, proscriptions, etc.) elements (Hanges & Dicksion, 2004). In the current study, both values and practices will be used to measure national culture.

As stated previously, the proposed investigation focuses on the hypothesized role of national culture clash on the financial success of cross-border M&A. As such, the emphasis in the current discussion has been on defining national culture. Although the effects of the organization's culture (as opposed to national culture) on M&A performance will not be empirically tested in the current investigation, it can be argued that the effects of national culture clash and organizational culture clash in M&A are confounded and that it may be impossible to completely separate the two in an investigation of M&A. Therefore, it seems unwise to turn to a discussion of culture clash without including a brief discussion of the relationship between national culture and organizational culture, particularly as it pertains to the study of cross-border M&A.

#### *National versus Organizational Culture*

National culture has been suggested to have both direct and indirect effects on the formation of an organization's culture. Directly, national culture

influences organizational culture by instilling in an organization's members the values and beliefs they share regarding appropriate business practices and leadership styles (House, et al., 1999). For example, it has been found that differences in national cultures result in different organizational and administrative practices and employee expectations (Kogut & Sigh, 1988). As noted by Larsson and Risberg (1998), the more culturally distinct two countries are, the more different organizations in these countries will be on average, suggesting that each national culture is associated with a preferred set of management practices, indicating a specific, nationally-determined management style that will manifest in an organization (Calori et al., 1994; Olie, 1990). National culture, therefore also has an indirect effect on the formation of organizational culture through the values and beliefs that it instills in the founders and key leaders of organizations (House, et al., 1999; Schein, 1992). These values are then translated into the common business practices and organizational strategies organizational leaders decide to adopt (Hofstede, 1999).

National culture and organizational culture have been hypothesized to be related but separate constructs (Weber et al., 1996). The influence of each on organizational outcomes is difficult to tease apart, but is critical to the investigation of international M&A. In fact, the challenge in studies of cross-border M&A "is to consider the role of national culture, as well as organizational leadership and culture since all affect the successful implementation of a merger" (Malekzadeh, & Nahavandi, 1998, p.112). It has been stated that it is unwise to

investigate an organization apart from its national context, just as it is unwise to investigate an organization apart from its members. That is, “it seems futile to discuss cultural variations among organizations without taking into consideration the national culture within which such variations develop” (Weber et al., 1996, p. 1216). To date, however the bodies of literature on national and organizational culture seem to have developed and to exist in isolation (Weber et al, 1996).

How did this happen? Boyacigiller and Adler (1991) point out that U.S. cultural values have instilled in organizational science an implicit, but inappropriate universalism. Hence, the emergence of the concept of organizational culture in the United States is not coincidental, but rather a reflection of the American national culture (Adler & Jelinek, 1986). In fact, it is interesting to note that the main body of literature relating to M&A in the U.S. has focused on domestic activity and the problem of integrating the organizational cultures of the merging companies (Cartwright, 1998), whereas in Europe, since M&A have become increasingly transnational, the focus has appropriately shifted to the problem of integrating the national cultures of the merging companies (Malekzadeh, & Nahavandi, 1998). With cross-border M&A activity on the rise in the U.S., academic investigations on the subject would benefit by adding national culture to investigations of culture clash in M&A.

As Schneider (1988) points out, Hofstede’s (1980) findings show that even in a large multinational organization such as IBM, which is known for its strong organizational culture, national differences remain paramount. Also, although many sub-cultures exist within specific countries, particularly those as

heterogeneous as the U.S., the dominant national culture does not vary significantly across sub-groups (Malekzadeh, & Nahavandi, 1998). At best, an approach that focuses on organizational culture alone leads to the development of ethnocentric theories, which are of little use beyond U.S. borders. “At worst, studying [organizational] culture outside the context of national culture leads to the same fault directed against the national culture school, namely the treatment of culture as a residual variable, precluding a valid argument of causality” (Weber et al., 1996, p. 1216).

By continuing to exist as such separate areas for investigation, authors on national and organizational cultures continue to miss out on obvious opportunities for cross-fertilization (Schneider, 1988). Recognizing this problem, Laurent (1986) made an attempt to draw a connection between national and organizational culture using Schein’s (1985) model of culture. Specifically, he proposed that organizational culture can modify the first two levels in Schein’s (1985) model, namely (a) behavior and artifacts and (b) beliefs and values. However, he maintains that organizational culture is not capable of affecting the third, deeper level of underlying assumptions, which is derived from one’s national culture.

Future research should work on teasing out the unique as well as the interactive effects of national and organizational culture compatibility on M&A performance. However given the current state of the literature, as well as the difficulty in isolating the effects of each, the current study focuses solely on national culture and its impact on cross-border M&A. Therefore, unless otherwise

stated, any future reference to 'culture' in this paper should be taken to reflect national culture.

### *GLOBE country clusters*

Before concluding the discussion on national culture, the clustering of societies that were empirically tested as part of the GLOBE study will be reviewed in order for the reader to gain a complete understanding of the study from which the national culture compatibility of the cross-border M&A included in the proposed investigation will be assessed.

As noted by Gupta, Hanges, and Dorfman (2002), clustering of societies is very useful from both a research and practical perspective. From a research perspective, clustering can be used as a guide to ensure that the sample included in the investigation captures an adequate amount of cultural variance. From a practical perspective, when an organization chooses to globalize, understanding how cultures vary on some identifiable and critical value dimensions can aid in the decision of what geographic region it would be more or less risky for an organization to expand to (Gupta et al., 2002). For example, a study by KPMG concluded that the returns of cross-border M&A between firms in the U.S. and the U.K. were 45% more successful than the average rate of return of all cross-border deals, while the acquisitions between firms in the U.S. and other European countries were 11% less successful than the average (Levy, 2001). As is hypothesized in this paper, this may be caused by similarity in national culture. In fact, the U.S. and the U.K. are similar enough in culture to be

clustered together in national culture studies of societal values (e.g., Project GLOBE).

Investigators of Project GLOBE used data collected on the nine cultural values and beliefs (i.e., power distance, uncertainty avoidance, collectivism I, collectivism II, gender egalitarianism, assertiveness, future orientation, performance orientation, and humane orientation) from 61 nations and proposed 10 a priori clusters. These are: 1. Anglo cultures, including Australia, Canada, England, Ireland, New Zealand, South Africa (White sample), and the U.S.A. 2. Latin Europe, including Spain, Portugal, Italy, French Switzerland, France, and Israel. 3. Nordic Europe, including Finland, Sweden, and Denmark. 4. Germanic Europe, including Austria, Germany (both former West and East), The Netherlands, and Switzerland. 5. Eastern Europe, including Albania, Georgia, Greece, Hungary, Kazakhstan, Poland, Russia, and Slovenia. 6. Latin America, including Costa Rica, Venezuela, Ecuador, Mexico, El Salvador, Colombia, Guatemala, Bolivia, Brazil, and Argentina. 7. Sub-Sahara Africa, including Namibia, Zambia, Zimbabwe, South Africa (Black sample), and Nigeria. 8. Middle East, including Egypt, Morocco, Turkey, Kuwait, and Qatar. 9. Southern Asia, including India, Indonesia, Iran, Malaysia, Philippines, and Thailand. 10. Confucian Asia, including Taiwan, Singapore, Hong Kong, South Korea, China, and Japan (Gupta & Hanges, 2004).

GLOBE project investigators used discriminant analysis to statistically test the empirical validity of the above clustering of societies in terms of their profile on the nine proposed culture dimensions. With the exception of Guatemala and

Costa Rica, both of which had a greater probability of classification in the Latin European rather than the hypothesized Latin American cluster, evidence confirmed the 10 clusters yielding above 90% classification reliability (Gupta et al., 2002). A cross-validation procedure was then employed to rule out a random chance or sampling error explanation for the results. This procedure also found good support for the cluster classification of GLOBE societies. Specifically, with the exception of the Germanic European (.50) and Sub-Sahara Africa (.53) clusters, the average probability of classification of the remaining societies in their hypothesized clusters exceeded .75 (Gupta et al., 2002, Gupta & Hanges, 2004). At the completion of this phase of the project, investigators concluded that “the societal cluster is an appropriate and relevant unit of analysis and that the GLOBE cluster classifications are reliable indicators of world-wide cultural attributes” (Gupta et al., 2002, p. 15).

Since national culture similarity is expected to play a role in the success of cross-border M&A, it can be assumed that M&A between companies within the same societal value clusters will be more successful than M&A between companies in different societal value clusters. This will be discussed in more detail in the procedure section of the current study. In the next two sections the relationship between degree of M&A relatedness and hypothesized culture clash, and a review and critique of the relevant M&A empirical literature respectively will be discussed.

A Typology of Organizational Partnerships:  
Degree of Relatedness and Hypothesized Culture Clash  
Chapter 4

## A Typology of Organizational Partnerships: Degree of Relatedness and Hypothesized Culture Clash

As stated previously, many reasons are provided in the organizational sciences literature on why companies ultimately decide to combine forces, both domestically and internationally (Marks & Mirvis, 1998). However, regardless of the specific reason, it is generally expected that combining forces with another organization will help an organization attain its strategic goals more quickly and inexpensively than if either organization acts on its own. M&A are only two of the options available to organizations looking to collaborate with other organizations. In fact, Marks and Mirvis (1998) note that organizations can decide to join forces in a variety of legal combinations ranging from relatively informal networks (licensing) to outright absorptions of one entity by another (takeovers). Culture clash is not expected to affect all types of partnerships, as well as all types of M&A equally. The degree to which culture clash is expected to influence the success of a combination increases as one proceeds down the continuum from a relatively informal combination such as a licensing to a much more aggressive and formal combination such as a takeover. This is a direct result of the increased involvement and commitment of members of organizations on both sides of a partnership. For those organizations that choose to merge with or acquire another organization, instead of engaging in more informal types of organizational partnerships, the effects of culture clash are expected to vary further depending on the degree of industry relatedness of the M&A. This will be discussed in more detail below. First, a brief discussion of the various legal

partnerships available to organizations seeking to collaborate with other organizations is provided.

*Licensing* is a relatively simple relationship, whereby one organization allows another organization to use one of its products, services, or trademarks. Next on the continuum is a *strategic alliance*, which is a cooperative effort of two or more organizations in the pursuit of their own strategic objectives. A *joint venture* takes this a step further by establishing a new and separate formal organization while the original companies continue to exist as separate entities. This new organization has its own structure, workforce, governance, procedure, policies, and culture. At the opposite end of the continuum are *mergers* and *acquisitions*. Mergers involve the full combination of two organizations into a completely new entity, while acquisitions involve the purchase of an organization by another, which is fully incorporated into the purchasing organization (Marks & Mirvis, 1998). There are important differences in financial investment and level of risk, as well as the level of control held by the lead company, as one moves from a relatively tentative and loose arrangement such as an alliance or joint venture to a merger or acquisition (Marks & Mirvis, 1998).

The terms 'merger' and 'acquisition' are often used interchangeably in the literature, however they are in fact indicative of two very different types of legal combinations. Unfortunately, most empirical investigations of M&A treat the two types of combinations the same (Hogan & Overmyer-Day, 1994). Mergers and acquisitions are not equivalent: A 'merger' suggests a partnership of equals, with a relatively equal distribution of power, whereas in an acquisition one company

subsumes the other and the target organization loses its identity to the parent organization (Sudarsanam, 2004). Also, the types of accounting rules that will apply when consolidating the two companies are very different in a merger compared to an acquisition (Sudarsanam, 2004). The distinction between a merger and an acquisition is important in specific contexts; however unless the combination is carefully scrutinized they are often difficult to distinguish (Marks & Mirvis, 1998). Also, Hogan and Overmyer-Day (1994) and Gitelson (2001) note that acquiring companies often do not want to appear as aggressors. Therefore, when a deal is announced it is frequently declared as a merger rather than an acquisition. In fact, as stated by Gene Gitelson (2001), a true manifestation of the term “partnership of equals” has probably never existed in the history of corporate combinations. In addition, Walter (1985) notes that even in initial merger arrangements, there is usually an unequal distribution of power between the two combining organizations; eventually the culture of one side of the partnership dominates the other. That is, although the term ‘merger’ implies a mutual and equal relationship, frequently one of the companies involved in the partnership will overpower the other.

Consider the recent merger of Daimler-Benz and Chrysler, which was announced in November of 1998 as a “partnership of equals.” In this case, it was obvious from the beginning on which side of the scale the power leaned. And when push came to shove, after the “usual clash of corporate culture and egos was magnified by trans-Atlantic misunderstandings and tensions...[m]any of Chrysler’s top executives [including former CEO Robert Eaton]...departed as a

result of the acrimony” (*The New York Times*, January 9, 2001). Further, the assignment of two long time Mercedes executives to top executive positions at Chrysler, fueled a class action suit which claims that Schrempp (the former CEO of Daimler-Benz and then of Daimler-Chrysler) misled Chrysler stakeholders in claiming the partnership was a merger of equals, not an acquisition (*The New York Times*, February 7, 2001). Because of the difficulty of distinguishing which partnerships fall into the category of ‘merger’ and which fall into the category of ‘acquisition’, for the purpose of this paper, unless otherwise stated the terms ‘merger’ and ‘acquisition’ will be used interchangeably.

As stated previously, *culture clash* occurs between two merging companies when members of the combining organizations become aware of their own cultures and differences between them become salient (Marks & Mirvis, 1998). The likelihood of devastating consequences of culture clash due to the increased level of contact of key members of the combining organizations is not the same for all mergers and acquisitions (Lubatkin, Schweiger, & Weber, 1999; Walter, 1985). This is because the likelihood of contact is not the same for all mergers and acquisitions (Chatterjee et al., 1992). Contact between key members of the merging organizations increases as the level of integration of the combination increases (Lubatkin, Schweiger, & Weber, 1999). Once again, because related M&A operate within the same industry sector, they result in a greater degree of overlap of human resource functions and, consequently require a higher degree of integration.

Walter (1985) distinguished between four merger types and discussed the level of integration and the resultant cultural issues that are specific to each. These are: *vertical*, *horizontal*, *concentric*, and *conglomerate*. Vertical and horizontal M&A are both examples of related M&A, since they both involve combinations between organizations operating within the same industry. The difference between the two lies in the equivalence of products. Specifically, *vertical* M&A include combinations of two companies from within the same industry with similar, but not identical products. These types of M&A are executed primarily for financial reasons, such as cutting cost and reducing vulnerability in the marketplace. Since vertical M&A occur within the same industry, there is usually a significantly high level of contact between people in the combining firms, making culture differences a very salient issue in the effectiveness of the integration (Walter, 1985). *Horizontal* M&A involve combinations between companies from within the same industry with identical products. Because one of the major goals of horizontal M&A is to reduce inefficiency by eliminating redundancies (e.g., in human resources; Walter, 1985), these combinations typically involve an even higher level of integration than vertical ones. Therefore, it can be concluded that the level of contact between members of the two companies is even greater, and culture compatibility issues are even more integral to their success.

*Concentric* M&A include combinations of two organizations in unfamiliar, but related fields (e.g., a sporting good company merging with an athletic clothing company; Walter, 1985). Because of the differentiation of services, these

combinations typically lead to a lower level of contact between combining employees, therefore culture compatibility is not as integral to success (Walter, 1985). *Conglomerate* M&A involve combinations of two organizations in totally unrelated areas of business (e.g., a merger between a telecommunications company and a hotel chain). These types of M&A tend to be the most benign, since there is no overlap in the products and markets of the combining firms. Therefore, the acquired firm is expected to conform only to the buying firm's financial and planning systems, limiting the contact between employees on both sides, as well as the subsequent effects of widely discrepant cultures (Chatterjee et al., 1992). On the other hand, in related M&A, the buyer's belief is that it can achieve operating synergies as well as financial synergies (Chatterjee, 1986; Walter, 1985). Therefore, less autonomy will probably be given to the acquired firm, leading to a greater possibility that cultural differences will be magnified in the increased level of encounters between the members of the combining firms. The increased level of contact will in turn have a greater chance of impeding with the success of the integration process (Walter, 1985; Chatterjee et al., 1992). As will be discussed in the procedure section, in order to eliminate any potential confounding effects of M&A type on financial performance, the current investigation will sample only related M&A. First, a review of the relevant research on culture clash will be provided, followed by a statement of the proposed hypotheses.

Current Research on Culture Fit and Merger and Acquisition Performance

Chapter 5

## Current Research on Culture Fit and Merger and Acquisition Performance

To date, the overwhelming majority of published studies on the role of culture and M&A performance have emanated from the U.S. and the U.K. (Cartwright, 1998). Furthermore, although some of this research has begun to incorporate national dimensions of culture in the operationalization of culture clash, they have nonetheless almost exclusively focused on investigations of domestic M&A and the role of organizational culture similarity/dissimilarity in predicting their success (Cartwright, 1998). Therefore, as previously noted, with very few exceptions (e.g., Calori et al, 1994, Very et al., 1998), the issue of national culture clash in cross-border M&A remains largely under-investigated, regardless of the interesting fact that such M&A are cross-cultural at both the organizational, as well as the societal levels of analyses (Larsson & Risberg, 1998). Nevertheless, much has been learned from psychological studies of organizational culture clash in the context of domestic M&A. Therefore, although the focus of the current investigation is on national culture, in order to build the hypotheses, as well as to establish the procedure, the literature review will begin with a critique of some of the key studies in organizational culture clash and M&A performance as they pertain to the current investigation. It will then turn to a critique of the national culture studies of M&A that have been published to date, as well as a critique of the one known study to date to include both organizational and national manifestations of culture in an investigation of M&A.

### *Organizational Culture Findings*

Lubatkin, Schweiger, and Weber (1999) used a two-stage data collection process to investigate the effects of organizational culture incompatibility on top management turnover. In stage 1, they mailed questionnaires to all members of the acquired top management team of 185 firms that had participated in related M&A between the years of 1985 and 1987. Responses were received from 69 of the 185 firms surveyed, yielding a response rate of 35%. Of the 69 firms that responded, 17 returned surveys from only one member of the top management team, while 52 returned responses from more than one executive.

Respondents were asked to evaluate the degree of organizational culture compatibility (along 29 value dimensions) between the combining top management teams at the time of the M&A. They were also asked to complete an additional 23-item questionnaire measuring autonomy removal. Autonomy removal was defined as the degree to which the acquired executives felt that the acquiring top management team imposed their values on them. Perception of degree of autonomy removal was hypothesized by Lubatkin et al. (1999) to be particularly salient to the acquired executives' decision to leave or remain with the new organization. Specifically, they reasoned that when a top executive's autonomy is removed, they are forced to surrender their familiar administrative practices and negotiate decisions that they had the full authority to make prior to the acquisition (Haspeslagh, & Jemison, 1991). They hypothesized that the more autonomy was removed, the more acquired executives would feel dominated by

the acquiring executives. This in turn would result in a greater than expected rate of turnover (Lubatkin et al., 1999).

Phase 2 of the data collection process consisted of contacting the Human Resources Department of the integrated organizations three years after the M&A to ascertain the number of the acquired top management team members who left the organization. As hypothesized, Lubatkin et al. (1999) found that perception of organizational cultural differences and degree of autonomy removal were both related to top management turnover during the first year of the M&A process.

There are a number of limitations in the Lubatkin et al. study that preclude generalizability of findings to other acquisitions. First, the study failed to control for other variables that may have contributed to turnover (e.g., nearing retirement age). Second, the study used a survey of members of the acquired top management team to determine perceptions of culture compatibility. This method partially controlled for survivor bias, because questionnaires were distributed prior to the completion of the integration process. However, relying on subjective data from only one of the two combining teams to assess culture compatibility questions the validity of the conclusions. Further, although the authors note that a response rate of 35% is pretty good “given the sensitive nature of the questionnaire and the level of manager queried,” the low response rate highlights the problem of relying on subjective measures to collect valid data on macro-organizational issues (Kabanoff & Daly, 2000).

Lubatkin et al. (1999) argued that turnover of executives has important influences on post-M&A productivity, morale, and the subsequent performance of

the acquisition. However, the relationship between top management turnover and M&A performance was not investigated. Therefore, it cannot be concluded that top management turnover will be negatively related to M&A performance. In fact, following the Attraction-Selection-Attrition model (ASA) of Schneider (1987), it can even be argued that attrition of acquired top management team members who do not perceive themselves to be similar to the new combined top management team is a good thing for the success of the M&A integration process.

In another study, Chatterjee, Lubatkin, Schweiger, & Weber (1992) relied on subjective measures to investigate the relationship between organizational culture fit and financial performance. In order to control for the effects of industry and strategic fit, the investigators limited their sample to related M&A. Questionnaires were mailed to members of the acquired top management team of 198 firms after the M&A were completed, with a response rate of 39%. The questionnaires measured the degree of perceived organizational culture fit between the merging organizations. Cultural fit was assessed along seven dimensions (i.e., innovation/action orientation, risk-taking, lateral integration, top management contact, autonomy in decision-making, performance orientation, and reward orientation). Autonomy removal was measured using additional items to tap the degree to which the top management team felt the acquiring firm imposed their values on them. M&A performance was measured using objective financial performance data (i.e., abnormal returns and rate of return on common shares).

As hypothesized, Chatterjee et al. (1992) found that the greater the perceived organizational cultural differences and autonomy removal of the acquired top managers, the lower the financial performance of the combined organization. This study provides a major contribution to the M&A literature, because it is one of the only early investigations that actually attempted to isolate the effects of culture fit using an objective measure of M&A performance. However, as noted by the investigators, there are a number of limitations to the research.

For one, a response rate of 39% is not adequate enough to control for the possible effects of non-response bias. Therefore, the external validity of the study is questioned. Also, top management team members were surveyed after the success of the M&A was already known. This may have biased the results because top managers' perceptions of cultural differences could be tainted by their knowledge of the 'success' or 'failure' of the M&A. Further, as noted by Chatterjee et al. (1992), survivor bias could have influenced the results, because top managers who perceived the largest differences between the organizational cultures of the combining firms probably left the organization by the time the survey was conducted. Finally, the use of stock prices as an objective measure of financial performance does not rule out plausible alternative hypotheses, such as market fluctuations, which could account for the results.

In a similar study, Weber (1996) examined the role of organizational culture compatibility and autonomy removal on the performance of 72 related M&A. As in the two previously discussed studies, perceptions of culture fit and

level of autonomy removal were assessed using mail questionnaires completed by members of acquired top management teams; 185 organizations were surveyed and 72 responded, yielding a response rate of 39%. Two measures of M&A performance were taken: The first, increase in Return on Assets (ROA), was an objective measure of financial performance of the combined firm, measured four years after the completion of the M&A. The second was a subjective measure of the success of the integration process. That is, top management team members that were surveyed were also asked to complete a questionnaire designed to assess the degree to which they perceived the integration process was successful.

The results were mixed. Specifically, a negative relationship was found between degree of organizational culture incompatibility and perceived effectiveness of the integration process, but only for M&A in the banking industry. No relationship was found between organizational culture differences and financial performance (increase on ROA). Also, no relationship was found between the level of perceived autonomy removal and the financial performance of M&A in the banking industry. However, the relationship between autonomy removal and the financial performance of manufacturing M&A were found to be significant in the opposite direction to that which was hypothesized. Specifically, as perceived autonomy removal increased, the financial performance (increase on ROA) of M&A in the manufacturing industry also increased.

A number of limitations similar to those discussed in the previous studies could have contributed to the mixed results. Specifically, relying on top

management team perceptions of organizational culture compatibility four years after the completion of a M&A may have biased the results. Accordingly, the validity of the conclusions is questioned. Top managers who perceived the greatest differences between the cultures of the combining organizations most probably already left the organization. Further, those who remained behind may have been better adjusted and therefore more inclined to evaluate the success of the acquisition integration more favorably. In sum, relying on culture evaluations after the M&A has already been completed severely limits the validity of the results.

Although the proposed investigation will focus on cross-border M&A and the effects of national culture clash on their success, given the lack of national culture studies of M&A available, it was considered necessary to summarize some of the findings on the effects of organizational culture clash and domestic M&A performance. Although these studies do have some methodological limitations (e.g., reliance on subjective measures of culture clash, survey research with low response rates) their findings do suggest that culture clash is a real phenomenon that can affect top management turnover (e.g., Lubatkin et al., 1999), as well as the financial performance of domestic M&A (e.g., Chatterjee et al., 1992, Weber, 1996). Following is a review of the two known studies of the effects of national culture on cross-border M&A performance, as well as the one known study to date that attempts to investigate the affects of both organizational as well as national culture on the performance of cross-border M&A.

### *National Culture Findings*

Calori, Lubatkin, & Very (1994) made one of the first systematic attempts to investigate the influence of *national culture* on the integration mechanisms exercised in international acquisitions. Specifically, Calori et al. (1994) investigated the influence of national culture on the control mechanisms, both formal (e.g., the design of decision processes) and informal (e.g., emergent patterns of communication and socialization) exercised by acquiring firms during the integration phase of the acquisition. In order to make statistical comparisons, Calori et al. (1994) selected target firms in two countries: France and the United Kingdom. In France, they compared U.S. buyers with British buyers; in the United Kingdom, they compared U.S. buyers with French buyers. They selected these three specific countries for investigation, because sufficient literature exists on which hypotheses could be built documenting differences in management styles and values between the British and the American systems and between the American and the French systems.

In developing hypotheses concerning the control mechanisms exercised by the French compared to those exercised by Americans over foreign acquired firms (specifically firms in the UK), Calori et al. (1994) drew on Hofstede's (1980) typology of management values. Specifically, Hofstede (1980) found that the French appear to be higher than the Americans on the cultural dimensions of uncertainty avoidance and power distance, while the Americans are higher than the French on the cultural dimension of masculinity (i.e., orientation towards performance). Calori et al. (1994) predicted that the high uncertainty avoidance

and power distance of the French would lead to a higher centralization of decision-making in French as compared to American companies, except when it pertained to financial decision-making. They also predicted that because of the U.S.'s higher ratings on masculinity, U.S. acquiring firms would exert higher formal control over the performance of individual managers and financial resources when compared to French acquiring companies. Finally, Calori et al. (1994) predicted that Americans would exercise higher formal control through procedures and higher informal control through teamwork than the French.

In drawing hypotheses regarding comparisons of American and British control mechanisms in foreign acquisitions, Calori et al. (1994) drew on prior work conducted by Gates and Engelhoff (1986) and Chandler (1986), because Hofstede's (1980) study of work-related values did not show much of a difference between the two countries. Based on prior work, Calori et al. predicted that (a) Americans will exercise higher formal control by centralization of marketing and manufacturing decisions and (b) Americans will exercise higher formal control through procedures than the British.

Calori et al. (1994) mailed surveys to the acquired top management teams of 155 French and 191 British firms, with a response rate of about 18%. The final sample consisted of 25 British firms acquired by French firms, 21 British firms acquired by U.S. firms, 16 French firms acquired by British firms, and 13 French firms acquired by U.S. firms. That is, for the French firms the acquirers were either American or British firms; for the British firms, acquirers were either

American or French. Perceptions of managers were used to test the hypotheses, as well as the success of the acquisition.

Calori et al. (1994) found that the British and the American firms sampled differed in some of the control mechanisms they exercised over the French firms they acquired. Likewise, as predicted, the French and the American buyers differed in the control mechanisms they exercised over the British firms they acquired. Variance in these differences was partially explained in terms of differences in the administrative heritage of their national culture; however, they were not always in the hypothesized direction. The authors concluded, "as far as international acquisitions are concerned, there are some national biases in the way buyers exercise both formal and informal control over the foreign acquired firms" (Calori et al., 1994, p. 373).

With regard to the relationship between control mechanisms and performance of the acquisition, Calori et al. (1994) found that the level of control exercised by the buyer over the acquired firm was negatively correlated with the perceived financial performance of the acquisition. They concluded, "buying firms should develop informal control and coordination, and reduce formal control of operational decisions in order to make their foreign acquisitions more successful" (Calori et al., 1994, p. 374).

In a follow-up study, Very, Lubatkin, and Calori (1998) investigated if and how the acculturative stress experienced by managers engaged in domestic European mergers differed from that experienced by managers engaged in cross-border European mergers. They also investigated the role that

acculturative stress plays in merger performance, hypothesizing an inverse relationship between the two. Borrowing from Nahavandi and Malekzadeh (1988) and Berry (1983), acculturative stress was defined as the disruptive tension that is felt by members of one culture when they are required to interact with a second culture and adapt its ways (Very et al., 1998). It was suggested that the greater the differences between the cultures (both organizational and national) of the combining firms, the greater the acculturative stress that will be experienced (Very et al., 1998). It was also previously suggested that cross-border M&A will experience greater acculturative stress than domestic M&A because they are bringing together companies rooted in different organizational as well as national cultures (Calori et al., 1994).

Investigators drew two random samples of French ( $n=155$ ) and British ( $n=191$ ) acquired firms from a list of European mergers published in the *Acquisitions Monthly* during the years of 1987, 1988, and 1989. The criteria that were used to select the sample were: acquiring firms were either from the U.S., France, or the U.K.; the selling firm was valued at a least \$10 million; and the names and addresses of at least two top executives from the acquired company prior to the merger were publicly available. A questionnaire translated into either French or English was mailed to the identified executives. After two mailings, responses were received from 71 acquired French executives and 109 acquired British executives, yielding a response rate of 18 percent for both samples. After excluding questionnaires with missing data, the resultant data consisted of responses from 21 French executives acquired by 16 French firms; 25 French

executives acquired by 10 U.S. firms; 24 British executives acquired by 20 British firms; 34 British executives acquired by 24 French firms; and 37 British executives acquired by 20 U.S. firms.

Acculturative stress was measured using a pre-tested survey instrument based on previous work conducted by Hofstede (1980), Bond (1987), Denison (1990), and Chatterjee et al. (1992). Respondents were asked to rate the importance of 23 items generated using Hofstede's (1980) culture taxonomy, using a scale of 1 (not important) to 5 (very important). Three responses were elicited for each item, and were used to measure degree of acculturative stress. The questions asked pertained to the values of their current and former organizations. These were: 1. "How do you feel things ought to be?" 2. "How were things at your firm before the merger?" 3. "How do things appear at the buying firm?" (Very et al., 1998). Post-merger performance was assessed using subjective assessments of the acquired executives surveyed. Respondents were asked to report their perceptions of the performance of their firm since the time of, as well as a result of the merger. In the cases where two or more responses were received from executives in the same merger, their scores were averaged and treated as one observation.

The first hypothesis, which pertained to the degree of acculturative stress experienced by members of domestic compared to cross-border mergers was exploratory and was therefore stated in the null form. It was rejected. Differences were found between the degree of acculturative stress experienced by members of the two types of merges, irrespective of how large (U.K. and France) or how

small (U.K. and U.S.) the national culture differences were. Interestingly, for some of the dimensions of acculturative stress that were tapped, the cross-border merger sample experienced less acculturative stress than the domestic sample. For example, the managers of British firms engaged in domestic mergers reported experiencing a greater degree of acculturative stress regarding the level of “participation” and “communication” they experienced since the merger, whereas the managers of British firms that were acquired by U.S. and French firms were neutral to these items. Very et al. (1998) concluded that perhaps the procedural justice of the cross-border mergers in these cases alleviated the magnitude of the cultural differences that would otherwise be experienced.

Even more striking are the results comparing French managers that were acquired by French firms to those acquired by U.S. and British firms. Managers engaged in domestic French mergers reported experiencing a significant degree of stress regarding their buyer’s “personal” and societal” values, whereas as those being acquired by U.S. companies reported being attracted to the values of their U.S. buyers. French managers being acquired by British companies reported being neutral to the values of their buyers.

With regard to the degree of acculturative stress and its effects on merger performance, the results revealed some expected patterns. Overall, as the degree of acculturative stress decreased, and the level of attraction to the buying firm increased, merger performance increased. This was true irrespective of whether the merger was domestic or cross-border. In other words, for both the

British and French samples, no differences were found between merger type (i.e., domestic versus cross-border) and merger performance. Interestingly, for the British sample, merger relatedness and age of the merger (i.e., time since the M&A was completed) were positively related to merger performance, whereas for the French sample, only age of the merger was positively related to performance, also in the positive direction.

The studies by Calori et al. (1994) and Very et al. (1998) provide the first systematic attempts to investigate the role of national culture on M&A performance, using a comparison group of domestic versus cross-border European mergers. As such, they provide an enormous contribution to the M&A literature. However, there are a number of limitations to this research that warrant addressing. First, like all of the previous studies discussed, managerial perceptions were used to test hypotheses. Further, only top managers from the acquired firms were surveyed. It is possible that the perspective of the acquiring top managers could be very different than that of the acquired top managers. Managerial perceptions were also used to assess the financial performance of the acquisition. In many cases, only one executive in the firm made these assessments. The accuracy of subjective assessments by one person of an objective criterion such as financial performance is questionable. Further, the same respondents were used to assess the independent and dependent variables in the study. Therefore, a mono-method bias may have affected the results of the study. Finally, the response rate in this study (18%) is particularly low. This introduces the problem of non-response bias and limits the

generalizability of the conclusions that can be drawn. Very importantly, the low response rate does highlight the difficulty of using a survey methodology to accurately investigate the role of national cultural differences in acquisition performance. Finally, only three countries (the U.S., the U.K., and France) were represented in their sample and two of the three countries (the U.K. and the U.S.) have been found to be very similar in societal culture values by a number of culture researchers (e.g., Hofstede, 1980; House et al., 2004). This limits the generalizability of the conclusions that can be drawn about the role of national culture in M&A to the countries investigated.

The findings reported by Calori et al. (1994) and Very et al. (1998) have some very important managerial implications. For example, it was previously assumed, that cultural differences would automatically lead to acculturative stress. The results of Very et al. (1998), however, suggest that this is not necessarily always the case. Depending on the country of origin, in the context of mergers, cultural differences may lead to attraction, rather than stress. Also, although acculturative stress was found to decrease merger performance, the salient dimensions of the construct differ depending on the country in which the acquired firm is based. For example, for the French the dimensions of “personal and societal responsibility” showed a higher degree of explanatory power in the performance of the merger, which as Very et al. (1998) point out, makes sense, given the high value of collectivism and femininity shown by the French. On the other hand, for the British, the dimension with the most explanatory power was found to be “performance and reward orientation,” a finding that also makes

sense given the British tendency towards individualism and masculinity. These findings highlight the importance of paying attention to the unique characteristics of the national cultures represented in the mergers being managed.

### *National and Organizational Culture Findings*

Recognizing the paucity of research in this area, Larrison and Risberg (1998) used the case survey method to investigate the role of national and organizational culture differences in 62 M&A. The case survey method has the benefit of generating the depth of information obtained in case studies, combined with the larger sample size obtained using surveys to collect data. Specifically, data from individual case studies is pooled, a coding scheme is developed, and multiple raters are used to code the cases and transform the qualitative data into quantitative data. This data can then be subjected to extensive data analysis. The final sample of M&A included in the investigation consisted of 8 domestic M&A with similar corporate cultures, 36 domestic M&A with different corporate cultures, 8 cross-border M&A with similar corporate cultures, and 9 cross-border M&A with different corporate cultures. Similarities and differences in organizational culture were measured for all four sub-samples according to the similarities and differences of the management styles of the merging firms sampled. Specifically, the organizational cultures of the merging firms were coded on a 5-point Likert scale for similarities in the level of formality, participation, and other unspecified managerial dimensions. The dependent variables investigated included degree of acculturation, employee resistance,

and synergy realization. All of the dependent variables were assessed using a 5-point Likert type scale using data obtained from the case studies sampled.

The findings pertaining to the level of cultural similarity and the degree of acculturation were surprising. Specifically, contrary to the expectation that domestic M&A with similar organizational cultures would show the highest degree of acculturation, whereas cross-border M&A with dissimilar organizational cultures would show the least, Larsson and Risberg (1998) found that cross-border M&A with different organizational cultures had the highest degree of acculturation. The authors explained this counterintuitive finding by suggesting that cultural differences in cross-border M&A are more obvious at the onset, therefore greater efforts are put forth by managers from the acquiring firm to be sensitive to these differences and to manage them throughout the acculturation process. In domestic M&A, however, cultural similarity may be taken for granted and cultural issues may not be made salient until after the M&A integration process has begun, making acculturation more difficult.

The results pertaining to the relative impact of national and organizational culture clashes on employee resistance were equally surprising. Although both domestic and cross-border M&A with dissimilar organizational cultures experienced employee resistance, domestic combinations with dissimilar organizational cultures experienced more employee resistance than cross-border M&A with dissimilar organizational cultures. This finding also suggests a greater cultural awareness in the cross-border M&A sampled, which may put forth greater socialization efforts and therefore reduce employee resistance.

Finally, the cross-border M&A sampled showed a higher degree of synergy realization (i.e., the interaction between the combining firms with regard to the consolidation of resources, purchases, production, etc.) compared to the domestic M&A sampled. These findings can be explained in part by the higher combination potential exhibited by the cross-border M&A sample. That is, although the authors do not clearly provide this information, they suggest that the cross-border M&A investigated may have included a larger sample of related M&A. Because related M&A operate within the same industry, they typically involve a greater degree of integration than unrelated M&A, and accordingly expend greater integration efforts to realize their synergy potentials.

The study by Larsson and Risberg (1998) presents some very interesting counterintuitive findings that warrant further investigation. It may in fact be the case that managers participating in cross-border M&A are more aware initially of the impact of cultural differences, and are therefore more careful to manage them before they become a problem, through, for example greater socialization efforts. However, a word of caution is necessary. Although both cross-border and domestic M&A were included in the investigation, only the organizational cultures of the firms were actually manipulated. In drawing their hypotheses, the authors posed comparisons between the roles of national and organizational culture clashes in the M&A sampled. However, these differences were not in fact investigated. Further analysis, investigating actual differences in the national cultures of the cross-border M&A sampled is needed in order to accurately conclude that national versus organizational culture clashes have a differing role

in M&A acculturation, employee resistance, and synergy realization. Also, the study compares 42 domestic M&A with a much smaller sample of 17, predominantly Swedish cross-border M&A. Therefore, as noted by Cartwright (1998), the findings reported may actually reflect the Swedish concern for quality of work-life and process issues, which may not be shared by more masculine task-oriented cultures, such as the U.S. Nonetheless, the findings reported by Larsson and Risberg (1998) suggest that cultural differences do not necessarily pose a direct threat to the success of cross-border M&A. More research is needed to clarify these interesting results.

#### *Problems with Current Research*

According to Weber and Schweiger (1992), the psychological merger literature has three major limitations: (1) Heavy reliance on case studies; (2) Low sample size; and (3) Failure to account for the differential impact of culture clash due to issues such as degree of relatedness and level of integration. Although M&A differ with respect to factors such as relatedness and level of integration, most previous studies were conducted under the assumption that all M&A are alike in terms of the degree to which cultural issues will play a role in their success (failure) (Weber, 1996; Weber & Schweiger, 1992). Therefore, these studies fail to take into consideration the fact that the impact of culture clash might vary from one M&A to another. Each of these limitations will be addressed by the current investigation and will therefore be explicated in more detail in the remainder of this discussion.

The existing literature on culture clash and M&A performance is based on observations made by practitioners and consultants (i.e., case studies), and has therefore been extensively criticized for having little or no theoretical or empirical support (Weber & Schweiger, 1992). Case studies do contribute valuable in-depth data on culture compatibility/incompatibility and how this improves or impedes the M&A integration process. They have also proven an invaluable tool to practitioners regarding interventions that can be undertaken to minimize the effects of culture clash on M&A performance (e.g., Tettenbaum, 1999). However, the low sample sizes in these studies preclude the generalizability of conclusions that can be drawn and severely limit their external validity. Only recently has the focus in M&A research shifted to conducting systematic investigations of the role of culture compatibility (both national and organizational) as a predictor of M&A performance (Weber, 1996).

The few empirical studies that have been conducted have focused on the investigation of culture clash in only one merger or acquisition (i.e., small sample size). As noted by Cartwright and Cooper (1993b), these studies “have tended to arise as much by accident as by design or under quasi or simulated conditions” (pp. 331-332). In addition, there is a heavy reliance in the current literature on the use of survey research to tap issues such as degree of culture fit, level of integration, and even financial performance of the M&A (Weber, 1996). That is, top executives that have remained with the combined organization are usually surveyed in order to assess culture compatibility. There are some shortcomings with using this approach to assess culture compatibility. For example, using

members of top management teams to assess degree of culture fit introduces the problem of survivor bias into investigations (Hogan & Overmyer-Day, 1994). Survivor bias occurs when executives who were not able to adjust to the cultural and strategic changes that were introduced by the M&A leave and only those who were able to adjust are surveyed (Hogan & Overmyer-Day, 1994). Further, assessing culture fit retrospectively by using perceptions of top managers who managed to adjust to the changes introduces another bias; that is, the evaluation of culture fit after the fact may be tainted by the knowledge of the success of the M&A. In addition, surveying only the top management team of either the acquirer or the acquired organization introduces motivational and frame of reference biases that question the validity of research study results (Hogan & Overmyer-Day, 1994). For example, a study conducted by Hogan & Overmyer-Day (1993) found that perceptions of M&A processes and outcomes differed depending on whether members of target or parent firms were surveyed.

The same executives are also typically surveyed in order to obtain organizational performance data. The use of subjective methods to assess M&A performance introduces important biases (e.g., heavy reliance on memory and executive attrition) that generally limit the external validity of the results. Also, due to the fact that these studies are notably surveying high-level executives, the response rates are usually extremely low. In these situations, it is very difficult to accurately measure the degree of non-response bias that is introduced into the studies. Organizations that respond may be different along some very important non-discernable dimensions than organizations that do respond. Thus, any

conclusions drawn from this type of research, although rich in qualitative data, limit the validity of the conclusions that can be drawn.

One final problem with the current M&A literature that is worth summarizing is the variation in the criteria used to evaluate success and the lack of attention devoted by researchers to carefully match the choice of outcome measures with the objectives of the M&A (Hogan & Overmyer-Day, 1994). Typically, studies of the human element of M&A arbitrarily use either subjective or objective outcome measures to evaluate success. As noted by Hogan & Overmyer-Day (1994), both types of outcome measures have their respective strengths and weaknesses, and the appropriateness of the choice of outcome measure varies with the type of merger or acquisition (i.e., related vs. conglomerate) and their respective objectives (e.g., synergy versus diversification of products).

The most common objective measures of M&A success are financial performance measures of the combined firm (Hogan & Overmyer-Day, 1994). Financial performance of the combined firm can be measured using a number of indices, including: return on investment (ROI); return on assets (ROA); net income; retention or divestiture of the acquired firm; and measures of stock price fluctuation (Michel & Shaked, 1985). Advantages to using objective measures of M&A outcomes include: 1. They are convenient and easy to obtain, at least for publicly owned firms; and, 2. Their widespread use makes comparisons between companies and studies possible (Hogan, & Overmyer-Day, 1994). Limitations of objective measures include the fact that they are susceptible to the influence of

many external factors (e.g., market fluctuations within a particular industry) (Hogan, & Overmyer-Day, 1994). Also, there is little agreement about the appropriateness of the time period after the initiation of a merger or acquisition at which objective performance measures should be recorded. As noted by Lubatkin (1987), it may take years to feel the effects of the M&A on the financial performance of the firm.

Some of the most frequently used subjective measures of M&A performance include self-report survey instruments of individual employees' job satisfaction, commitment, and stress (Hogan and Overmyer-Day, 1994). Other subjective measures that have been used are top management team evaluations of organizational financial performance (e.g., Calori et al., 1994). An advantage of subjective measures is the fact that they can be selected or created to precisely tap psychological constructs. However, subjective measures are particularly susceptible to self-reporting biases of respondents (e.g., motivational and frame of reference biases; Hogan & Overmyer-Day, 1994).

As was discussed previously, M&A differ according to the objectives that they pursue. Accordingly, measures of performance (i.e., subjective versus objective) should be appropriately selected to match the M&A objectives. For example, "unrelated or conglomerate M&A occur because one organization is seeking to diversify...and hence spread the risk of financial loss. However, M&A of related businesses are usually consummated because either one or both organizations are seeking 'synergy'" (Hogan & Overmyer-Day, 1994, p. 252). Synergy is obtained in M&A when the combination leads to higher performance

levels than those that would be obtained if the two organizations continued to operate independently. Therefore, in the case of related M&A, it is more appropriate to use objective data of financial performance rather than subjective data to evaluate M&A outcomes (Hogan & Overmyer-Day, 1994). According to Hogan and Overmyer-Day (1994), the type of M&A also affects the appropriateness of the time at which performance data should be collected. Specifically they state that “higher degrees of integration associated with more related M&A take longer; therefore the appropriate time to assess M&A success for a related M&A may be considerably longer than for an unrelated one” (p. 252).

In sum, there are a number of problems with the existing literature investigating the role of culture in M&A outcomes. Unfortunately, it is nearly impossible to make the appropriate pre-merger analysis of degree of culture compatibility by relying on survey research. Therefore, most empirical studies examining the role of culture compatibility in M&A performance, with sufficiently large sample sizes on which conclusions can be drawn have relied heavily on managerial assessments of culture issues. Up until this point the only known data that is available examining culture fit prior to the M&A comes from case studies. However, as was discussed previously, we cannot generalize results about the role of culture compatibility in the success of M&A based on case studies. The current study attempts to avoid some of these problems by looking at archival data to measure both culture clash as well as to assess M&A outcomes.

The Current Study: Statement of the Hypotheses

Chapter 6

## The Current Study

### *Culture Compatibility and Financial Performance of Related Cross-Border M&A*

The current study attempted to address some of the gaps in the academic literature by using an archival research methodology to assess the national culture compatibility of related cross-border M&A prior to the actual combination. It was aimed at increasing our understanding of the role of national culture on the overall success of cross-border M&A. In order to control for the confounding effects of strategic fit on the variability of performance, the study was limited to the investigation of related M&A (i.e., M&A between companies within the same industry with similar or identical products). Related M&A were selected because although they are expected to have the highest potential for synergy among all of the M&A types (Cartwright & Cooper, 1996; Marks & Mirvis, 1998) and, the highest potential for financial performance gains (Cartwright & Cooper, 1996; Marks & Mirvis, 1998), they also provide the greatest degree of overlap of human resource functions. Therefore, when related M&A do not achieve their expected objectives, the literature blames 'people issues' for their failure (Tetenbaum, 1999). Since the level of integration is highest in related M&A, the degree of contact between the members of the combining organizations is also high, leading to a higher potential for culture clash in very dissimilar cultures (Walter, 1985). Thus, it allows for a clean test of the hypotheses forwarded in this study.

“It has been suggested that the potential plurality of corporate cultures is more likely to be appreciated in the context of domestic rather than international

mergers and alliances” (Cartwright & Cooper, 1996, p. 93). In domestic M&A, the most salient issue for partner selection will most probably be the compatibility of organizational cultures. In this case, incompatibility of organizational cultures is expected to serve as a potential barrier for successful integration. On the other hand, in international M&A, the most salient issue for partner selection will most probably be compatibility of national cultures. In fact, although it is not typical for U.S. corporations to include a cultural due diligence process in the initial stages of a merger or acquisition, it can be argued that national culture issues play a role in which foreign corporations the chief executives of a corporation will consider partnering with or acquiring. For example, although the U.S. has been a major player in the arena of international M&A, U.S. cross-border M&A have focused on partnerships with firms within the U.K. (Cartwright, 1998). Research extends this preference for collaborating with others in countries that share similar management philosophies and practices to countries outside the U.S. (e.g., Cartwright & Cooper, 1996). For example, it has been found that when given a choice, Northern European countries, such as the U.K., Sweden, and Denmark would prefer to join forces with other Northern European and U.S. based organizations. These same countries, if given a choice, would prefer to avoid partnerships with firms based in Japan and Southern Europe (Cartwright, 1998; Cartwright & Cooper, 1996). However, although acquiring countries have shown a preference for investing in neighboring countries, or in those with which they have the closest political, economic, linguistic, and other cultural ties (Larsson & Risberg, 1998), cross-border M&A are in fact often initiated between

countries with very different national cultures. Therefore, it was expected that related cross-border M&A between the U.S. and countries with similar national cultures (e.g., U.S. and U.K.) will be more likely to complete than related cross-border M&A between the U.S. and countries with very dissimilar national cultures (e.g., U.S. and Asian countries).

The requirement of national culture similarity is often difficult for acquiring companies to fulfill and severely limits their potential for foreign expansion (Larsson & Risberg, 1998). Because of the status of the current academic research on M&A, it is not clear yet how large a role, if any, national culture differences play in the financial success of cross-border M&A. Nonetheless, it can be assumed that cross-border M&A between countries with similar national cultures have an advantage over cross-border M&A with very dissimilar cultures. For example, although successful cross-cultural communication is a key issue in the management of all cross-border combinations, it is expected to be more difficult to achieve in M&A between countries with dissimilar national cultures, where different coding and decoding create barriers to mutual understanding (Larsson & Risberg, 1998). It follows that, in the case of related cross-border M&A, the potential for culture clash would be greater as the differences between the national cultures of the combining firms increase. These differences should in turn decrease the financial performance gains of the M&A. It was, therefore expected that for related U.S. based cross-border M&A that do reach completion, the greater the incompatibility of the national cultures of the combining firms the worse the financial performance of the M&A.

### *National Culture Hypotheses*

The GLOBE taxonomy of national culture was used to assess the national culture compatibility of the cross-border M&A sampled. As mentioned previously, each of the national culture constructs in the GLOBE study were measured using two scales: the existing level of the culture dimension (“As Is”), reflected by societal practices; and the beliefs regarding expected degrees of each culture dimension (“Should Be”), stated as societal values. Interestingly, with the exception of the in-group collectivism, gender egalitarianism, and assertiveness dimensions of societal culture, a significant negative correlation was reported for each dimension between the “As Is” and “Should Be” scales. For example, a significant negative correlation was found between GLOBE societal practices and values scores of power distance ( $r = -.43, p < .01$ ). That is, respondents from societies with high levels of existing power distance tended to report desiring less power distance, whereas respondents from societies with lower degrees of power distance tended to report desiring more power distance (Carl, et al., 2004). This was also the case for the dimensions of uncertainty avoidance, institutional collectivism, assertiveness, future orientation, performance orientation, and humane orientation. Because countries were often found to score differently on the cultural dimensions depending on whether practices or values were being measured, it was not considered appropriate for the purposes of this investigation to average the country scores of the GLOBE national culture scales in order to come up with an overall index of national culture similarity. Therefore, separate hypotheses are provided for the effects of national culture differences

for each of the two GLOBE societal culture scales (i.e., practices and values), and its effects on each of the dependent variables of completion and financial performance.

*Power distance.* Findings from project GLOBE seem to suggest that individuals or firms based in countries with similar reported levels of practiced societal power distance (“as is”), as well as valued societal power distance (“should be”) would be attracted to one another, whereas those with dissimilar levels of practiced and valued societal power distance would not. Therefore, it was hypothesized that:

Hypothesis 1a: Degree of similarity in power distance

practices with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete, such that greater differences will be related to a lower likelihood of completion.

Hypothesis 1b: Degree of similarity in power distance values

with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete, such that greater differences will be related to a lower likelihood of completion.

Extending GLOBE findings to an investigation of U.S. based cross-border M&A it follows that the most successful M&A would be between firms in the U.S. and firms based in other societies with similar power distance practices and values. Therefore it was hypothesized that:

Hypothesis 2a: Degree of similarity in power distance practices with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock price return) of the M&A, such that greater differences will be related to decreases in financial performance.

Hypothesis 2b: Degree of similarity in power distance values with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock price return) of the M&A, such that greater differences will be related to decreases in financial performance.

*Uncertainty avoidance.* Findings from project GLOBE also seem to suggest that individuals or firms based in countries with similar reported levels of practiced (“as is”) as well as valued societal uncertainty avoidance (“should be”) would be attracted to one another, whereas those with dissimilar levels of practiced and valued societal power distance would not. Therefore, it was hypothesized that:

Hypothesis 3a: Degree of similarity in uncertainty avoidance practices with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete, such that greater differences will be related to a lower likelihood of completion.

Hypothesis 3b: Degree of similarity in uncertainty avoidance values with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete, such that greater differences will be related to a lower likelihood of completion.

Extending GLOBE findings to an investigation of U.S. based cross-border M&A it follows that the most successful M&A would be between firms in the U.S. and firms based in other societies with similar uncertainty avoidance practices and values. Therefore it was hypothesized that:

Hypothesis 4a: Degree of similarity in uncertainty avoidance practices with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock price return) of the M&A, such that greater differences will be related to decreases in financial performance.

Hypothesis 4b: Degree of similarity in uncertainty avoidance values with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock price return) of the M&A, such that greater differences will be related to decreases in financial performance.

*Institutional collectivism.* Findings from project GLOBE also seem to suggest that individuals or firms based in countries with similar reported levels of

practiced (“as is”) as well as valued societal institutional collectivism (collectivism I) (“should be”) would be attracted to one another, whereas those with dissimilar levels of practiced and valued institutional collectivism would not. Therefore, it was hypothesized that:

Hypothesis 5a: Degree of similarity in institutional collectivism practices with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete, such that greater differences will be related to a lower likelihood of completion.

Hypothesis 5b: Degree of similarity in institutional collectivism values with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete, such that greater differences will be related to a lower likelihood of completion.

Extending GLOBE findings to an investigation of U.S. based cross-border M&A it follows that the most successful M&A would be between firms in the U.S. and firms based in other societies with similar institutional collectivism practices and values. Therefore it was hypothesized that:

Hypothesis 6a: Degree of similarity in institutional collectivism practices with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock price return) of the M&A, such that

greater differences will be related to decreases in financial performance.

Hypothesis 6b: Degree of similarity in institutional collectivism values with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock price return) of the M&A, such that greater differences will be related to decreases in financial performance.

*In-group collectivism.* Findings from project GLOBE also seem to suggest that individuals or firms based in countries with similar reported levels of practiced (“as is”) as well as valued societal in-group collectivism (collectivism II) (“should be”) would be attracted to one another, whereas those with dissimilar levels of practiced and valued in-group collectivism would not. Therefore, it was hypothesized that:

Hypothesis 7a: Degree of similarity in in-group collectivism practices with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete, such that greater differences will be related to a lower likelihood of completion.

Hypothesis 7b: Degree of similarity in in-group collectivism values with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete, such that

greater differences will be related to a lower likelihood of completion.

Extending GLOBE findings to an investigation of U.S. based cross-border M&A it follows that the most successful M&A would be between firms in the U.S. and firms based in other societies with similar in-group collectivism practices and values. Therefore, it was hypothesized that:

Hypothesis 8a: Degree of similarity in in-group collectivism practices with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock price return) of the M&A, such that greater differences will be related to decreases in financial performance.

Hypothesis 8b: Degree of similarity in in-group collectivism values with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock price return) of the M&A, such that greater differences will be related to decreases in financial performance.

*Assertiveness.* Findings from project GLOBE also seem to suggest that individuals or firms based in countries with similar reported levels of practiced (“as is”) as well as valued societal assertiveness (“should be”) would be attracted to one another, whereas those with dissimilar levels of practiced as well as valued societal assertiveness would not. Therefore, it was hypothesized that:

Hypothesis 9a: Degree of similarity in assertiveness

practices with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete, such that greater differences will be related to a lower likelihood of completion.

Hypothesis 9b: Degree of similarity in assertiveness values

with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete, such that greater differences will be related to a lower likelihood of completion.

Extending GLOBE findings to an investigation of U.S. based cross-border M&A it follows that the most successful M&A would be between firms in the U.S. and firms based in other societies with similar assertiveness practices and values. Therefore, it was hypothesized that:

Hypothesis 10a: Degree of similarity in assertiveness

practices with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock price return) of the M&A, such that greater differences will be related to decreases in financial performance.

Hypothesis 10b: Degree of similarity in assertiveness values

with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock

price return) of the M&A, such that greater differences will be related to decreases in financial performance.

*Future orientation.* Findings from project GLOBE also seem to suggest that individuals or firms based in countries with similar reported levels of practiced (“as is”) as well as valued societal future orientation (“should be”) would be attracted to one another, whereas those with dissimilar levels of practiced as well as valued societal future orientation would not. Therefore, it was hypothesized that:

Hypothesis 11a: Degree of similarity in future orientation practices with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete, such that greater differences will be related to a lower likelihood of completion.

Hypothesis 11b: Degree of similarity in future orientation values with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete, such that greater differences will be related to a lower likelihood of completion.

Extending GLOBE findings to an investigation of U.S. based cross-border M&A it follows that the most successful M&A would be between firms in the U.S. and firms based in other societies with similar future orientation practices and values. Therefore, it was hypothesized that:

Hypothesis 12a: Degree of similarity in future orientation practices with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock price return) of the M&A, such that greater differences will be related to decreases in financial performance.

Hypothesis 12b: Degree of similarity in future orientation values with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock price return) of the M&A, such that greater differences will be related to decreases in financial performance.

*Performance orientation.* Findings from project GLOBE also seem to suggest that individuals or firms based in countries with similar reported levels of practiced (“as is”) as well as valued societal performance orientation (“should be”) would be attracted to one another, whereas those with dissimilar levels of practiced as well as valued societal performance orientation would not.

Therefore, it was hypothesized that:

Hypothesis 13a: Degree of similarity in performance orientation practices with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete, such that greater differences will be related to a lower likelihood of completion.

Hypothesis 13b: Degree of similarity in performance

orientation values with the U.S. in related cross-border M&A will be related to the likelihood that the M&A will complete such that greater differences will be related to a lower likelihood of completion.

Extending GLOBE findings to an investigation of U.S. based cross-border M&A it follows that the most successful M&A would be between firms in the U.S. and firms based in other societies with similar performance orientation practices and values. Therefore, it was hypothesized that:

Hypothesis 14a: Degree of similarity in performance

orientation practices with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock price return) of the M&A, such that greater differences will be related to decreases in financial performance.

Hypothesis 14b: Degree of similarity in performance

orientation values with the U.S. in related cross-border M&A will be related to the financial performance (increase in ROA, average stock price return) of the M&A, such that greater differences will be related to decreases in financial performance.

*Gender egalitarianism.* In the GLOBE study, the U.S. scored a moderate to low 3.34 for gender egalitarianism practices, and a significantly higher 5.06 for

gender egalitarianism values, on a 7 point scale, with lower scores indicating greater male domination (i.e., lower gender egalitarianism). Interestingly mean scores for gender egalitarianism practices in the GLOBE study were the lowest ( $M = 3.37$ ), and had the smallest standard deviation ( $SD = 0.37$ ) of all of the culture dimensions (Emrich et al., 2004). In other words, none of the societies investigated were gender egalitarian to the point of promoting women over men for leadership positions and educational advancement. The small standard deviation suggests very little if any significant difference between the societies investigated on this culture dimension.

Although the GLOBE study did not show much discrepancy in the levels of gender egalitarianism in practice in the societies investigated, significant differences in valued gender egalitarianism were reported. Specifically, the mean gender egalitarianism values score for the societies sampled was a higher 4.51 (compared to the 3.37 mean for gender egalitarianism practices), suggesting that overall GLOBE respondents preferred their societies to be more gender egalitarian (Emrich et al., 2004). Also, unlike the results for the previous culture dimensions, the correlation between gender egalitarianism practices and values was significant in the positive direction ( $r = .32, p < .05$ ). This suggests that those societies that were relatively higher in gender egalitarianism practices to begin with also valued more gender egalitarianism. However, even though respondents reported valuing more gender egalitarianism, there was less reported variability in the societal scores of gender egalitarianism values than the other GLOBE cultural dimensions, with most societies clustering on the higher

end of gender egalitarianism scale. Therefore, when applying these findings to the context of cross-border M&A, differences between merging firms on the cultural dimension of gender egalitarianism were not expected to contribute much, if any, explanatory power to the financial performance of the M&A investigated. For this reason, no specific hypotheses for the dimension of gender egalitarianism practices and values were tested in the current investigation.

*Humane orientation.* The average score for the humane orientation practices scale was reported by project GLOBE as a moderate 4.09, on a scale of 1 to 7 (1=low humane orientation and 7=high humane orientation), with scores ranging from 3.18 to 5.23. The average score for the humane orientation values scale was significantly higher ( $M = 5.43$ , with a range of 4.49 to 6.09), suggesting that overall respondents value humane orientation and desire it in their societies, at least to a higher degree than is reflected in their practices (Kabasakal & Bodur, 2004). Further, the relatively low variability in scores reported by the GLOBE study for both the practices and values scales of this dimension suggests that, somewhat unfortunately, the societies sampled have practices in place that do not necessarily reward a great degree of humane orientation, and that most people value a greater degree of it. For example, the U.S. scored a moderate 4.17 on the humane orientation practices scale and a significantly higher 5.53 on the humane orientation values scale (Kabasakal & Bodur, 2004).

In sum, the GLOBE study reported a low variability in scores for the dimension of humane orientation, placing most of the societies surveyed in similar culture bands for this variable for both the practices and values scales.

Therefore, no specific hypotheses for the dimension of humane orientation were tested in the current investigation.

### *Macro-Industry Type and M&A Performance*

The industry context in which a cross-border M&A takes place may influence the role and effects of cultural differences on the financial performance of the combined firm (Weber, 1996). “Although culture is unique to a company or its subunits, industries exert influences that cause culture to develop within defined parameters” (Gordon, 1991, p. 396). Organizational cultures tend to follow lines of both the industry and the country in which they operate (Olie, 1990). For example, when keeping national culture constant, the organizational culture of a financial services company will be comparable to that of another financial services company, but will be different from that of a manufacturing company (Weber, 1996).

Companies within an industry share certain cultural elements that are required for survival (Gordon, 1991). Gordon (1991) argues that because of the pronounced effect of industry on corporate culture, the ability to successfully change a company’s culture is limited to actions that are neutral to, or directionally consistent with industry demands” (p. 396). This has direct implications for the ability of a M&A to realize its synergistic potential. However, even though companies within a certain industry are predisposed to develop cultures within the confines of the industry macro-cultures, cultural variation does exist between companies within the same industry, so long as this variation does not go against industry demands (Gordon, 1991). Therefore, it can be concluded

that when a company is faced with the outside threat of a M&A, culture clash becomes apparent, even if the combining companies operate within the same industry. As will be discussed in more detail below, the macro industry *context* (i.e., services vs. manufacturing) within which a cross-border M&A takes place was treated as a control variable in the current study. Classification of specific related M&A into these two broad industry groupings were made based on the professional recommendation of a M&A expert (J. Dahya, personal communication, December 10, 2004), as well as by following the trend of prominent researchers in the academic literature (e.g., Gordon, 1991; Pablo, 1994).

It has been suggested that the industry and culture contexts within which a M&A takes place may interact to enhance the effects of culture differences on M&A performance (Pablo, 1994). Specifically, it has been found that companies within the service sector rely more heavily on social control mechanisms to direct members' actions compared to companies in the manufacturing sector, which rely more on formal control mechanisms (Pablo, 1994). Accordingly, cultural differences may be more critical to the effectiveness of a merger in the service sector (e.g., banks) than in the manufacturing sector (Weber, 1996). Obviously these are broad industry groupings and further detailed analyses are required at the micro level as well. Unfortunately, the current M&A literature does not adequately provide evidence supporting this claim. Also, even though this suggestion has grown out of the literature on organizational not national culture, it may be useful to investigate the distinction between macro-industry sector and

its potential interactive effects with culture on the national level of analysis as well. Therefore, although precise predictions were precluded, the current study used an exploratory testing approach to examine the moderating role of industry.

The following research questions were explored:

Question 1: Does industry type (i.e., services versus manufacturing) moderate the role of national culture practices incompatibility on the financial performance of related U.S. based cross-border M&A?

Question 2: Does industry type (i.e., services versus manufacturing) moderate the role of national culture values incompatibility on the financial performance of related U.S. based cross-border M&A?

#### *Other Influences*

*Relative size.* The size of the acquired firm relative to its buyer may also influence the relationship between cultural differences and the financial performance of a merger or acquisition (Chatterjee et al., 1992; Weber, 1996). Walter (1985) claims that when an acquired firm is small relative to its buyer, the human needs of the acquired firm tend to get overlooked or trivialized by the buyer. This can lead to alienation, which can prevent a merger from realizing its financial potential (Weber, 1996). In fact, relative organizational size has been found to have a direct influence on shareholder gains (Kusewitt, 1985). Therefore, relative size was treated as a control variable in this study. Relative

size was defined as the natural log of the ratio of the target firm's total assets to those of the buying firm.

*Deal value.* In order to ensure that the cross-border deal was financially significant, the current study focused on cross-border M&A valued at least \$50million U.S. dollars.

*Relatedness.* As discussed above, in order to control for the confounding effects of strategic fit on the variability of performance, the current study was limited to the investigation of related M&A. A M&A was considered related if the core businesses of the merging firms were within the same 2-digit Standard Industrial Classification (SIC) code.

*History of future M&A.* Deals that were followed within a year by another significant M&A (i.e., a deal worth at least \$50 million U.S. dollars) by the same buyer were eliminated from the sample, because it is nearly impossible to figure out the impact from one deal if another follows soon after.

Method: Sample and Procedure

Chapter 7

## Method

### *Sample*

The sample of firms was drawn from an exhaustive list of M&A listed in the *SDC Platinum Database* between the years of 1984 and 2004. As stated previously, in order to overcome methodological problems associated with construct universality (Weber, et al., 1996), the sample consisted of M&A anchored within only one country. That is, only U.S. based cross-border M&A of foreign corporations were investigated. Further, in order to ensure that organizational data was readily available, the sample was restricted to companies that were traded publicly. Finally, in order to control for the role of strategic fit on M&A performance, only related M&A between companies with the same core businesses (i.e., M&A between companies within the same two-digit Standard Industrial Classification codes) were selected. The overall sample ( $N=204$ ) consisted of all U.S. based cross-border M&A (completed or withdrawn) that met the criteria specified and for which data were available. This sample was used to test hypotheses 1a and 1b, hypotheses 3a and 3b, hypotheses 5a and 5b, hypotheses 7a and 7b, hypotheses 9a and 9b, hypotheses 11a and 11b and hypotheses 13a and 13b. For hypotheses relating culture clash to M&A performance, only completed M&A were used, which resulted in a sample size of 183 U.S. based cross-border M&A. This sample was used to test hypotheses 2a and 2b, hypotheses 4a and 4b, hypotheses 6a and 6b, hypotheses 8a and 8b, hypotheses 10a and 10b, hypotheses 12a and 12b, and hypotheses 14a and

14b, as well as question 1 and question 2 related to the two dependent variables of M&A financial performance – return on assets and stock price fluctuations.

*Independent Variables: Measures and Procedure*

*National culture differences.* In order to avoid some of the biases associated with the use of subjective measures and to ensure that a large enough sample could be obtained, the proposed study used an unobtrusive measure to tap cultural differences in the cross-border M&A investigated. National culture differences were operationalized as differences between the merging companies in the practices and values of the national cultures in which they were embedded. GLOBE data were used to assign culture scores for the M&A sampled. Specifically, each M&A was assigned 2 sets of culture scores (one for the U.S. based company and one for the country in which the merging company was based). This resulted in a total of 14 culture dimension scores (7 for the societal values and 7 for the societal practices) for each company represented in the sample.

As stated previously, the seven national culture value dimensions specified by Project GLOBE investigated in the current study were: power distance, uncertainty avoidance, collectivism I, collectivism II, assertiveness, future orientation, and performance orientation. Once again, *power distance* refers to the degree to which members of an organization or society expect and agree that power should be shared unequally (Carl et al., 2004). *Uncertainty avoidance* reflects the degree to which ambiguous situations are threatening to individuals, to which rules and order are preferred, and to which uncertainty is

tolerated in a society (De Luque & Javidan, 2004). *Collectivism I*, also referred to as institutional collectivism, is defined as the degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action (House & Javidan, 2004). *Collectivism II*, or in-group collectivism, is defined as the degree to which individuals express pride, loyalty, and cohesiveness in their organizations and families (House & Javidan, 2004). *Assertiveness* reflects the degree to which a society encourages its members to be assertive, aggressive, and tough in their pursuits and social relationships (Den Hartog, 2004). *Future orientation* refers to the extent to which individuals in a society engage in and are rewarded for future-oriented behaviors (Ashkanasy et al., 2004). Finally, *performance orientation* reflects the degree to which a society encourages and rewards group members for performance improvement, innovation, and excellence (Javidan 2004).

After the sample was selected, national culture differences of the M&A were assessed based on the seven culture dimensions for both societal practices (GLOBE “As Is”) and societal values (GLOBE “Should Be”). Specifically, differences between standardized country scores on uncertainty avoidance, power distance, institutional collectivism, in-group collectivism, future orientation, and performance orientation were computed. The absolute value of the dimension differences was calculated and used to test hypotheses 1a through hypotheses 14b, as well as to address questions 1 and 2.

*Control variables.* The industry *context* of the cross-border M&A sampled was determined based on data obtained from the U.S. Department of Labor,

Division of Occupational Safety and Health Administration's (OSHA) January 4, 2005 guide for *Standard Industrial Classification Division Structure* ([http://www.osha.gov/pls/imis/sic\\_manual.html](http://www.osha.gov/pls/imis/sic_manual.html)). It was proposed that if preliminary statistical regression analyses showed that industry type has an added effect on the financial performance of the cross-border M&A sampled, a dummy code for macro industry type (i.e., 0=services; 1=manufacturing) would be added to the appropriate regression analyses in order to control for industry effects. This dummy coding was also used to test Questions 1 and 2 (i.e., interaction between industry and national culture differences on the financial performance of cross-border M&A).

Information on *relative size* of the combining organizations was computed based on acquirer and target asset information obtained from the WRDS COMPUSTAT North America database, which uses financial information supplied by Standard and Poor's Investment Services (<http://remote.baruch.cuny.edu:2274/ds/comp/index.shtml>), as well as supplementary information obtained from the MERGENT online database (<http://remote.baruch.cuny.edu:2466/compsearch.asp>). Relative size was entered into the model as a control variable and was calculated as the natural log of the ratio of the target firm's total assets to those of the buying firm. Information on *deal value* was obtained from data available using the *SDC Platinum* database, a subscription based database published by Thompson Financial securities (<http://www.tfsd.com>) provided to the researcher by the Baruch College library. Once again, only M&A valued at least \$50million were included in the

sample. The specific search criteria used with the *SDC Platinum* database to select M&A for the current study were: international mergers; announced between January 1, 1984 and December 31, 2004; valued at \$50 million to HI; acquisitions of 100% of the target firm, acquisitions of assets, acquisitions of majority interest, or mergers; target: public status; acquirer: public status; and, acquirer nation: U.S.

### *Dependent Variables*

*Completion of the M&A.* The completion of U.S. based cross-border M&A sampled was coded as a binary variable (0=withdrawn, 1=completed). This information was obtained by consulting the *SDC Platinum* database, and was used to test hypotheses 1a and 1b, hypotheses 3a and 3b, hypotheses 5a and 5b, hypotheses 7a and 7b, hypotheses 9a and 9b, hypotheses 11a and 11b and hypotheses 13a and 13b.

*Financial performance.* Following the suggestion of Hogan & Overmyer-Day (1994), two objective measures of financial performance – *return on assets (ROA)*, and *stock price fluctuations* were used to evaluate the success of the cross-border M&A sampled. As mentioned previously, the primary objective of related M&A is to achieve financial synergy. Therefore, objective measures of performance were deemed more appropriate for this study than subjective measures. However, unlike previous M&A investigations, the researcher did not assume that there is one best objective metric to evaluate the financial success of a M&A. For this reason, both operational and market measures of financial performance were used to evaluate the success of the cross-border M&A.

ROA was the operational measure used to evaluate M&A performance, because it has been used in previous studies of M&A and has been found to correlate with other measures of financial performance (Weber, 1996). Further, it controls for differences between the size and the industries of the firms in the sample (Weber, 1996). ROA takes into account the profit of a business as a function of the total capital used to make the profit. It is calculated as the ratio of a company's annual earnings (net income) to its total assets, and is reflected as a percent. ROA for the M&A investigated was computed based on information obtained from the COMPUSTAT and MERGENT online databases.

As stated previously, related M&A involve a high level of integration; therefore, it can take years before the effects of the M&A on financial performance are realized. For this reason, the current study followed the recommendation in the literature (e.g., Weber, 1996; Hogan & Overmyer-Day, 1994) and collected data on ROA three years after the completion of a M&A. This sub-sample of completed M&A consisted of cross-border M&A that were initiated by U.S. firms between the years of 1984 and 2001 for which data was available ( $n=87$ ). Information on ROA was used to partially test hypotheses 2a and 2b, hypotheses 4a and 4b, hypotheses 6a and 6b, hypotheses 8a and 8b, hypotheses 10a and 10b, hypotheses 12a and 12b, and hypotheses 14a and 14b.

ROA, as an indicator of financial performance is more directly related to managerial operations; therefore, a second measure of financial performance (i.e., stock price fluctuations) was added to track financial performance from a

shareholder's perspective. Information on stock price fluctuations was obtained by consulting the *Center for Research in Security Prices (CRSP)* online database provided by the Wharton Research Data Services through the Baruch College library (<http://remote.baruch.cuny.edu:2274/ds/crsp/index.shtml>).

Stock price fluctuations were calculated daily for the three days surrounding the announcement of the M&A (i.e., the day before, the day of the announcement, and the day after). The average daily closing returns were used to get an overall index of raw returns and were used as one indicator of stock price fluctuations for the cross-border M&A sampled. Because raw returns are subject to many environmental influences (e.g., overall market performance), a second measure of the three-day returns surrounding the announcement of the M&A was computed and was used to test hypotheses pertaining to financial performance. Specifically, the average of the market index as well as the CRSP valuated index for the corporations sampled were computed. The average of the market index was subtracted from each of the company returns to create a three-day market adjusted measure of stock price fluctuation. This sub-sample of completed M&A consisted of cross-border M&A that were initiated by U.S. firms between the years of 1984 and 2004 for which data was available ( $n=183$ ).

Finally, a third measure of stock price fluctuations was added to the investigation that was not originally proposed, but was thought to be useful as a second measure of long-term M&A performance. Specifically, the process that was used to compute market-adjusted returns for the three days surrounding the announcement of the M&A was repeated for the 12 months ( $n=151$ ), 24 months

( $n=134$ ), and 36 months ( $n=120$ ) following the completion of the M&A and was used to evaluate market performance of the combined firms for the three years following the completion of the M&A. This resulted in three additional tests of M&A performance used to test hypotheses 2a and 2b, hypotheses 4a and 4b, hypotheses 6a and 6b, hypotheses 8a and 8b, hypotheses 10a and 10b, hypotheses 12a and 12b, and hypotheses 14a and 14b.

Results

Chapter 8

## Results

### *Descriptive Statistics*

Before testing the study hypotheses and questions, descriptive statistics were calculated. The overall sample consisted of 256 M&A, of which 212 were completed, and 44 withdrew. The overall sample size dropped to 204 M&A ( $n=178$  completed;  $n=26$  withdrawn) because of missing data (e.g., national cultures could not be coded because they were not included in the GLOBE study). It should be noted that the sample of cross-border M&A in the current study is extremely skewed in terms of the cases that were completed as opposed to those that withdrew.

The countries represented in the sample and the frequency of M&A between the U.S. and companies within those countries were tabulated. These frequencies and a crosstabulation between the target nations sampled and the dependent variable of completion are presented in [Table 1](#). As is discussed in more detail in the discussion of the results, it is interesting to note that in the current study, the majority of U.S. based cross-border M&A within related industries that were initiated between the years of 1984 and 2004 were with target firms based in cultures with similar national cultures to the U.S. Specifically, 160 of the total M&A, and 132 of the 204 M&A that were completed were U.S. based cross-border M&A with target firms in Australia, Canada, New Zealand, South Africa, and the United Kingdom. All of these nations represent societal cultures that according to the GLOBE study show similar profiles of practices and values to the U.S.

Table 2 presents the frequency of M&A cases in each of the two macro-industries within which the data are nested – services and manufacturing. It also provides a list of the specific industries (e.g., financial services, automobile manufacturing) within which the related M&A were embedded and the frequency of observations within each. Although the M&A cases in the current study were skewed in terms of the categorization of completion, they were more evenly distributed between the macro industries of services ( $n = 118$  or 46% of the overall sample) and manufacturing ( $n = 138$  or 54% of the overall sample).

Table 3 presents a crosstabulation between national culture (i.e., target nation) and macro industry type (i.e., services vs. manufacturing) of the M&A sampled. Descriptive data show that 58% of the services M&A were between U.S. acquirers and target firms in countries, which according to GLOBE data have similar national cultures (i.e., Australia, British Virgin Islands, Canada, New Zealand, and the United Kingdom); while 42% were between U.S. acquirers and target firms in countries, which according to GLOBE data have significantly different national cultures. Descriptive data also show that 67% of the manufacturing M&A were between U.S. acquirers and target firms in countries with similar national cultures; while 33% of the manufacturing M&A were between U.S. acquirers and target firms in countries with significantly different national cultures. Overall, more of the cross-border M&A between U.S. acquirers and target firms with similar national cultures operated in the manufacturing compared to the services macro industry.

Finally, Table 4 presents descriptive data, including range and central tendency data of the value of the M&A transactions as well as the size of the combining firms, defined as the assets of both the acquirer and target at the time of the deal. As can be seen by looking at descriptive data in Table 4, the range of money paid by a U.S. firm to acquire a foreign target, as well as the range of total assets of both the acquirer and the target firms at the time of the deal is pretty wide. As such, the means for the deal value and the total assets of the acquirer and targets respectively are quite inflated. Therefore, other measures of central tendency (i.e., the median and the mode) are provided in Table 4, which more accurately describe the deal value of the cross-border M&A as well as the assets of the acquirers and the targets at the time the deal was completed. It is interesting to note that all of the measures of central tendency show that the acquirers in the cross-border M&A investigated were, on average, a lot bigger in terms of their total assets than the targets, suggesting an overall imbalance in resources and resulting power at the time of the M&A.

#### *Overall Statistical Analyses*

*Assessment of national culture differences.* Prior to testing the study hypotheses, national culture differences were calculated. Specifically, two sets of difference scores were computed for the cross-border M&A sampled for each of the seven GLOBE national culture dimensions included in the current study (one set for the societal practices scale and one for the societal values scale). The absolute value of each difference score was used to assess national culture differences of the M&A for each of the GLOBE societal culture dimensions (i.e.,

power distance, uncertainty avoidance, collectivism I, collectivism II, assertiveness, future orientation, and performance orientation) included in the current study. The higher the difference score, the lower the culture similarity of the M&A on that dimension.

Overall, the range of difference scores between the countries surveyed and the U.S. on each of the societal culture dimensions was quite restricted for the cross-border M&A investigated. Following is the range of culture differences reported, as well as the countries represented at each extreme: *power distance practices*: .02 (Hong Kong) – .77 (South Korea); *power distance values*: .06 (United Kingdom) – .68 (New Zealand); *uncertainty avoidance practices*: .02 (Hong Kong) – 1.27 (Switzerland); *uncertainty avoidance values*: .01 (Mexico) – 1.99 Switzerland; *institutional collectivism practices*: .01 (France) – 1.05 (Sweden); *institutional collectivism values*: 0 (Canada) – 1.37 (Brazil); *in-group collectivism practices*: 0 (Canada) – 1.64 (China); *in-group collectivism values*: .01 (Mexico) – .75 (New Zealand); *assertiveness practices*: .06 (France) – 1.16 (Venezuela); *assertiveness values*: .08 (Singapore) – 1.48 (Japan); *future orientation practices*: .04 (Australia) – 1.03 (Argentina); *future orientation values*: 0 (Canada) – .92 (Thailand); *performance orientation practices*: .01 (Canada) – 1.11 (Greece); *performance orientation values*: .01 (Canada) – .77 (Japan).

*Overall regression analyses.* Hierarchical regression analyses were used to test hypotheses. In the first step, the control variables (industry, relative size, and deal value) were entered into the models with either the completion of the M&A or the financial performance of the M&A as the dependent variable. If

significant effects were found, the control variables were included in the remaining regression analyses testing the hypotheses of this study. If the control variables were not found to have a significant effect on any of the dependent variables, they were excluded from the remaining analyses for that dependent variable. Any direct effects of the control variables will be discussed in the sections corresponding to the specific dependent variables.

*Rules for interpreting results.* Because of the large number of hypotheses investigated in the current study, minimizing Type I error and reducing the probability that a result was due to chance became an added concern for interpreting results. Therefore, before running the analyses to test the proposed hypotheses, it was considered necessary to develop a set of rules for interpreting the meaningfulness of both the statistical and practical significance of the results. These 'decision rules' were set in part by following recommendations set by experts in the statistical literature (e.g., Cohen, 1988, 1992; Rosenthal, 1994), but were also influenced by what the researcher felt would be a considerable finding and a noteworthy contribution to M&A research.

The 'decision rules' that were used in the subsequent sections for accepting or rejecting a finding as significant are:

1. For the categorical analyses, a result was accepted as statistically significant only if a given p-value was less than .05. A result was accepted as practically significant, if the effect size for this set of analyses corresponded with an odds ratio of 1.5 or greater (Cohen, 1988). In other words, if a given independent variable increased the odds of M&A

completion by 1.5 times for each one unit increase in the independent variable, that variable was considered to be practically significant to the study of U.S. based cross-border M&A.

2. For the multiple regression analyses, a result was once again accepted as statistically significant if a given p-value was less than .05. A result was accepted as practically significant if the effect size for this set of analyses corresponded with an R-squared, or in the case of additional variables, a change in R-squared of .02 or greater (Cohen, 1992). In this case, the R-squared statistic represents the percentage of the variance in the financial performance of the M&A explained uniquely or jointly by the independent variable(s) being investigated. It should be noted that an effect size close to .02 is quite small and all things considered, explains only a small percentage of the variance in financial performance. However, for studies of complex macro organizational issues such as M&A where outcomes are influenced by so many outside environmental factors simultaneously, explaining even a small percentage of additional variance in performance may translate into findings that are practically meaningful to major stakeholders.

#### *Completion of the M&A*

Hypotheses 1a and 1b, hypotheses 3a and 3b, hypotheses 5a and 5b, hypotheses 7a and 7b, hypotheses 9a and 9b, hypotheses 11a and 11b and hypotheses 13a and 13b state that the greater the similarity of the cultural practices and values of the M&A respectively the greater the likelihood that the

M&A will complete. The dependent variable of completion is dichotomous and was measured using binary coding (0=withdrawn, 1=completed).

Logistic regression analyses were used to test the effects of differences in cultural practices as well as differences in cultural values for each of the culture dimensions on the completion of the M&A. Logistic regression analyses were proposed instead of ANOVA because the dependent variable of completion of the M&A is dichotomous. In fact, this is one of the major distinctions between multiple regression and logistic regression. Specifically, like linear regression, models tested by logistic regression relate one or more predictor variables to a dependent variable and yield regression coefficients, predicted values, and residuals (Wright, 1995). However, in the case of logistic regression, the dependent variable is dichotomous, not continuous. Also, the relationship between our predictor and predicted variables is assumed to be non-linear, yielding probabilities of occurrence that always fall between the values of 0 and 1. Therefore, predictions stated in logistic regression test the probability that an observation belongs to one group as opposed to another (Agresti, 1996). In the case of the current study, we are testing the probability that a M&A will complete versus withdraw and are expressing the probabilities in terms of odds ratios. When the odds of completion are nonnegative and greater than 1, it is more likely that a M&A will complete versus withdraw.

Finally, in logistic regression analysis, the standard errors for the maximum likelihood coefficients are large-sample estimates, requiring larger sample sizes compared to linear regression analysis (Wright, 1995). Therefore,

for small samples, hypothesis tests may be considered inaccurate (Wright, 1995). For this reason, when interpreting results for the categorical analyses in the current study, more emphasis was placed on interpreting effect sizes rather than significance tests.

*Results of the completion of M&A.* Once again, in order to assess the individual contribution of the culture dimensions on the completion of the M&A, separate regression analyses were conducted for each culture dimension twice (one reflecting the M&A practices difference scores and one reflecting the M&A values difference scores), yielding 14 regression analyses (i.e., 7 national culture dimensions x 2 culture scales) to test hypotheses 1a and 1b, hypotheses 3a and 3b, hypotheses 5a and 5b, hypotheses 7a and 7b, hypotheses 9a and 9b, hypotheses 11a and 11b and hypotheses 13a and 13b.

Prior to testing study hypotheses, the main effects of the control variables were explored by entering macro industry context, relative size, and deal value as one block in the first step of a binary logistic regression. The following is an example of what such a regression looked like:

$$Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 \quad (1)$$

Where,

Y = completion of the M&A (0 = withdrawn, 1 = completed);

x<sub>1</sub> = macro industry (e.g., 0 = services, 1 = manufacturing);

$x_2$  = relative size (represented as the natural log of the ratio of the total assets of the combining firms);

$x_3$  = deal value (dollar value of the M&A).

For this set of analyses, only the relative size of the M&A was found to have a direct impact on the likelihood of completion. Specifically, both macro industry context ( $B = .273$ , ns) and deal value ( $B = 0$ , ns) were not found to have statistically significant relationships with the likelihood of M&A completion. Therefore, both of these variables were excluded from the remaining logistic regression analyses.

A statistically significant relationship was found, however, for the impact of relative size on the completion of the M&A ( $B = .306$ ,  $p < .05$ ). This variable was therefore included in the remaining logistic regression analyses, and was entered as a single control variable in the first step of the hierarchical regression analyses relating to the dependent variable of completion. The relative size of the M&A sampled corresponded with an odds ratio of 1.36, suggesting that M&A between firms with a greater difference in the size of the acquirer relative to the target are more likely to complete. Specifically, this data suggests that for each \$1 million difference in total assets between the target and the acquiring firms at the time of the M&A, a M&A is 1.36 times more likely to complete. This odds ratio is not greater than 1.5; therefore, following the decision rules set prior to conducting the analyses, was not interpreted as a practically significant result. The results for the variable of relative size as a predictor of M&A completion are summarized in Table 5.

The following is an example of what a resulting logistic regression with relative size entered in the first step and power distance practices entered in the second step of the hierarchical analysis looked like:

$$Y = \beta_0 + \beta_1x_1 + \beta_2x_2 \quad (2)$$

Where,

Y = completion of the M&A (0 = withdrawn, 1 = completed);

$x_1$  = relative size (represented as the natural log of the ratio of the total assets of the combining firms);

$x_2$  = absolute value of power distance practices difference scores.

This process was repeated for each culture dimension difference score, and was used to test main effects relationships between national culture clash and the likelihood of M&A completion.

Overall, the hypotheses relating national culture differences to the likelihood of completion were not supported by the results of the current study. That is, the relationship between national culture and M&A completion was not found to be statistically significant. The results from this set of hypothesis tests are summarized in [Table 5](#).

There are a number of reasons for the lack of results with regard to this set of hypotheses. For example, as stated previously, logistic regression analyses require larger sample sizes than multiple regression analyses (Wright, 1995). Further, the best prediction in logistic regression happens in cases where

observations are evenly distributed between groups (Agresti, 1996).

Unfortunately, the sample size for the current study was not very large and the M&A cases included in the current study were disproportionately distributed between the categories of completed ( $n=178$ ) and withdrawn ( $n=26$ ), contributing to the low power in the current study to detect a potential statistically significant result. Therefore, these non-significant results should be interpreted with caution. Interestingly, the results do suggest practically significant effects for 13 of the 14 culture variables and the prediction of M&A completion; however, 12 of those 13 suggest effects opposite to the hypothesized direction. For example, for each one unit increase in power distance practices differences (i.e., 1 interval increase on the GLOBE likert scale) a M&A is almost 2 times more likely to complete, suggesting that the more dissimilar a M&A is in power distance, the more likely it is to complete. The only finding that suggests an effect in the hypothesized direction, although not statistically significant, is the performance orientation practices dimension, for which results suggest that a one unit increase in culture differences increases the odds a M&A will withdraw by 2.2. These results, as well as the 95% Confidence Intervals corresponding to each of the odds ratios are also summarized in [Table 5](#). It should be noted that some of the confidence intervals for the odds ratios reported are very large (e.g., 95% C.I. for the odds ratio of power distance values ranges from .04 to 196.08). Therefore the results should be interpreted with caution.

### *Financial Performance of the M&A*

Hypotheses 2a and 2b, hypotheses 4a and 4b, hypotheses 6a and 6b, hypotheses 8a and 8b, hypotheses 10a and 10b, hypotheses 12a and 12b, and hypotheses 14a and 14b state that the greater the similarity of the cultural practices and cultural values of the M&A respectively, the better the financial performance of the M&A. Hierarchical multiple regression analyses were used to test these hypotheses. As stated previously, two indices of financial performance were used to evaluate the financial performance of the M&A – return on assets (ROA) three years following the completion of the M&A and average stock price fluctuations of the three days surrounding the announcement of the M&A. For the second index of financial performance (i.e., stock price fluctuations), two different metrics – raw returns and market adjusted returns were computed. Finally, three additional financial performance measures were added to the study that were used to track market adjusted stock price performance over the three years following the completion of the M&A.

*Overall multiple regression procedure.* The procedure for the multiple regression analyses paralleled that for the logistic regression analyses previously outlined. Specifically, in order to assess the individual contribution of the culture dimensions, separate regression analyses were conducted for each culture dimension twice (one for societal practices and one for societal values), for each financial performance dependent variable (i.e., ROA and stock price fluctuations), yielding 84 regression analyses (i.e., 7 national culture dimensions x 2 culture scales x 6 dependent variables) to test hypotheses 2a and 2b, hypotheses 4a

and 4b, hypotheses 6a and 6b, hypotheses 8a and 8b, hypotheses 10a and 10b, hypotheses 12a and 12b, and hypotheses 14a and 14b.

*Results for analyses predicting ROA.* Prior to testing study hypotheses, the main effects of the control variables were explored by entering macro industry context, relative size, and deal value as one block in the first step of a hierarchical multiple regression analysis predicting ROA. The following is an example of what such a regression equation looked like:

$$Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 \quad (3)$$

Where,

Y = Return on Assets (the ratio of a company's annual earnings to its total assets, reflected as a percent);

$x_1$  = macro industry (e.g., 0 = services, 1 = manufacturing);

$x_2$  = relative size (represented as the natural log of the ratio of the total assets of the combining firms);

$x_3$  = deal value (dollar value of the M&A).

None of the study control variables were found to have a direct impact on the ROA of M&A three years after completion. Specifically, macro industry ( $\beta = -.14$ , ns), relative size ( $\beta = .01$ , ns), and deal value ( $\beta = .03$ , ns) were not found to be significantly related to ROA, and were therefore excluded from the remaining analyses pertaining to this dependent variable.

The following is an example of a simple multiple regression investigating the relationship between power distance practices differences and ROA:

$$Y = \beta_0 + \beta_1 x_1 \quad (4)$$

Where,

Y = Return on Assets (the ratio of a company's annual earnings to its total assets, reflected as a percent);

$x_1$  = absolute value of power distance practices difference scores.

This process was repeated for each culture dimension difference score, and was used to test relationships between national culture clash and ROA three years following completion.

Hypotheses 2a and 2b, hypotheses 4a and 4b, hypotheses 6a and 6b, hypotheses 8a and 8b, hypotheses 10a and 10b, hypotheses 12a and 12b, and hypotheses 14a and 14b were not supported for the dependent variable of ROA by the results of the current study. That is, for all of the dimensions, degree of similarity in national culture between the combining firms sampled was not found to be related to the ROA of the acquiring companies three years after the completion of the cross-border M&A. These results could represent meaningful findings (i.e., culture differences are not important for the ROA of a cross-border M&A three years later) or they could be a function of the error of the current study (e.g., the range restriction in the independent variables) and the inability to

detect potentially meaningful results. Results for this set of hypothesis tests are summarized in Table 6.

Questions 1 and 2 asked if the macro industry context (i.e., services versus manufacturing) moderates the role of national culture practices and values differences respectively on the financial performance of the M&A. That is, in addition to testing the main effects of culture differences on financial performance, the researcher was interested in exploring whether cross-border M&A in the services compared to those in the manufacturing industry respond differently to culture differences. In order to test for a potential moderating effect of industry in the relationship between culture and financial performance, an interaction term (macro industry\*national culture differences) was added to each of two sets of multiple regression analyses (i.e., one for the GLOBE practices scale and one for the GLOBE values scale). For example, in order to assess whether macro industry moderates the relationship between differences in power distance practices on the ROA of a cross-border M&A, the following regression analysis was used:

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 (x_1 * x_2) \quad (5)$$

Where,

Y = Return on Assets (the ratio of a company's annual earnings to its total assets, reflected as a percent);

$x_1$  = macro industry (e.g., 0 = services, 1 = manufacturing);

$x_2$  = absolute value of power distance practices difference scores;

$x_1 * x_2$  = macro industry\*absolute value of power distance practices difference scores.

This process was repeated for each culture dimension difference score, and was used to test relationships between macro industry\*national culture clash and ROA three years after M&A completion.

When interpreting the results of an interaction in a multiple regression, the regression coefficients ( $\beta_3$ ) for the interaction are investigated. If one of the predictors is dichotomous, as is the case in the current study, the size of the coefficient tells us the size of the difference between the two types of M&A for each increment increase in the continuous predictor. Specifically, the regression coefficients for the interactions estimate the difference between the slope of financial performance (in this case ROA) on culture differences between manufacturing M&A (set at a value of '1') and services M&A (set at a value of '0'). A positive and significant regression coefficient for the interaction would mean that manufacturing M&A showed a gain in ROA of  $\beta_3$  compared to services M&A for each one unit increase in culture differences. Conversely, a significant negative regression coefficient would indicate that manufacturing M&A showed a loss in ROA compared to services M&A of  $\beta_3$  for each one unit increase in culture differences.

Overall, results of the current study do not suggest that macro industry moderates the relationship between national culture differences and ROA of U.S. based related cross-border M&A. Once again, these results could be meaningful,

or they could be a function of the error built into the study. These findings are also summarized in [Table 6](#).

*Results for analyses predicting average 3-day raw returns.* Once again, prior to testing study hypotheses, the main effects of the control variables were explored by entering macro industry context, relative size, and deal value as one block in the first step of a hierarchical multiple regression predicting average three-day raw returns.

For this set of analyses, relative size ( $\beta = .10$ , ns) and deal value ( $\beta = -.24$ , ns) were not found to have a direct impact on short-term raw returns. Therefore, both of these variables were excluded from the remaining multiple regression analyses pertaining to this financial performance measure. A statistically significant relationship was found, however, for the impact of macro industry context on the short-term raw returns of the M&A sampled ( $\beta = -.19$ ,  $p < .01$ ). Once again, the macro industry variable is dichotomous (i.e., manufacturing M&A = 1, services M&A = 0). Therefore, the size of the coefficient  $\beta$  tells us the size of the difference in raw returns between the two types of M&A with all other variables held constant. In this case, the results of the current study suggest that with all other variables held constant, short-term raw returns for manufacturing M&A were .19 times lower than those for services M&A.

Macro industry context was also found to explain a small, but practically significant proportion of the variance in financial performance ( $R^2 = .04$ ). This variable was therefore included in the remaining multiple regression analyses for the dependent variable of average three-day raw returns, and was entered as a

single control variable in the first step of this series of hierarchical analyses. The following is what such a regression equation looked like with macro industry context entered in step one and power distance practices differences entered in step two.

$$Y = \beta_0 + \beta_1x_1 + \beta_2x_2 \quad (6)$$

Where,

Y = stock price fluctuations (the average closing daily raw returns for the three days surrounding the announcement of the M&A);

$x_1$  = macro industry context (e.g., 0 = services, 1 = manufacturing);

$x_2$  = absolute value of power distance practices difference scores.

This process was repeated for each culture dimension difference score, and was used to test relationships between national culture clash and average three day raw returns.

Hypotheses 2a and 2b, hypotheses 4a and 4b, hypotheses 6a and 6b, hypotheses 8a and 8b, hypotheses 10a and 10b, hypotheses 12a and 12b, and hypotheses 14a and 14b were not supported for the dependent variable of raw returns by the results of the current study. That is, for all dimensions, degree of similarity in national culture between the combining firms was not found to be related to the average daily raw returns of the acquiring companies for the three days surrounding the announcement of a cross-border M&A. These results are summarized in Table 7.

The moderating role of macro industry in the relationship between national culture practices and values differences on the financial performance of cross-border M&A was further explored with short-term raw returns as the dependent variable. The following is an example of an equation testing this interaction with macro industry and power distance practices differences entered into step one and the interaction between the two entered into step two of a hierarchical multiple regression:

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 (x_1 * x_2) \quad (7)$$

Where,

Y = stock price fluctuations (the average closing daily raw returns for the three days surrounding the announcement of the M&A);

$x_1$  = macro industry context (e.g., 0 = services, 1 = manufacturing);

$x_2$  = absolute value of power distance practices difference scores;

$x_1 * x_2$  = macro industry\*absolute value of power distance practices difference scores.

This process was repeated for each culture dimension difference score, and was used to test relationships between macro industry\*national culture clash and average daily raw returns for the three days surrounding the announcement of a M&A.

Using moderated multiple regression results, the exploratory question of a two-way interaction between macro industry and culture clash received

significant support in four of the fourteen equations for the dependent variable of short-term raw returns. Specifically, differential effects of culture clash on raw returns were found for services versus manufacturing M&A for the culture dimensions of power distance practices ( $\beta = .29, p < .05$ ), institutional collectivism values ( $\beta = .23, p < .05$ ), assertiveness values ( $\beta = .40, p < .05$ ) and performance orientation values ( $\beta = .46, p < .01$ ). Results also showed that the test of the increase in  $R^2$  in moving from a simple regression model to the moderated model was significant for each of these variables, with moderated models for power distance practices, institutional collectivism values, assertiveness values, and performance orientation values explaining an additional 2, 2, 3, and 7 percent of the variance in average three day raw returns respectively. These results are summarized in [Table 7](#).

Overall, these results suggest that for the dependent variable of short-term raw returns, manufacturing M&A are at an advantage compared to services M&A, such that an increase in one unit of culture differences for the dimensions of power distance practices, institutional collectivism values, assertiveness values, and performance orientation values is associated with a significant gain in raw returns of .29, .23, .40, and .46 respectively for manufacturing compared to services M&A. Moreover, findings suggest that national culture clash may be beneficial for manufacturing, but not services M&A. This suggests that macro industry context does in fact moderate the role of culture differences on M&A performance for the dependent variable of short-term raw returns. Interestingly, however, the relationship appears to be counterintuitive to that suggested by the

literature, which suggests that culture differences should be more important to the success of M&A in the services compared to those in the manufacturing sector. Findings from this study do not show a significant impact for culture clash for services M&A in either direction, but they do suggest that culture clash may in fact benefit the outcomes of manufacturing M&A.

*Results for analyses predicting average 3-day market adjusted returns.*

Prior to testing study hypotheses, the main effects of the control variables were explored by entering macro industry context ( $\beta = -.11$ , ns), relative size ( $\beta = .04$ , ns), and deal value ( $\beta = .05$ , ns) as one block in the first step of a hierarchical multiple regression predicting market adjusted returns for the three days surrounding the announcement of a M&A. None of the study control variables were found to have a direct impact on three-day average market adjusted returns of M&A, and were therefore excluded from the remaining analyses pertaining to this dependent variable.

The following is an example of what a simple multiple regression investigating the relationship between power distance practices differences and three-day average market adjusted returns looked like:

$$Y = \beta_0 + \beta_1 X_1 \quad (8)$$

Where,

Y = stock price fluctuations (the average closing daily market adjusted returns for the three days surrounding the announcement of the M&A);

$X_1$  = absolute value of power distance practices difference scores.

This process was repeated for each culture dimension difference score, and was used to test relationships between national culture clash and average three day market adjusted returns.

The results for this set of hypothesis tests were mixed. Specifically, hypotheses 2a, 4a, 6a, 8a, 10a, 12a, and 14a were not supported by the results of the current study. That is, no statistically significant relationship was found between national culture differences for the dimensions represented by the GLOBE practices scale and average three day market adjusted returns. Hypotheses 2b, 8b, 10b, 12b, and 14b were also not supported by the results of the current study. Specifically, differences in the national culture variables of power distance, in-group collectivism, assertiveness, future orientation, and performance orientation values were also not related to average three day market adjusted returns for the cross-border M&A sampled. However, hypotheses 6b relating the predictor of uncertainty avoidance values to three day market adjusted returns was supported. Specifically, differences in uncertainty avoidance values ( $\beta = -.19, p < .01, R^2 = .04$ ) between the merging firms were found to significantly predict average three day market adjusted returns for the M&A, such that greater differences in uncertainty avoidance values were related to smaller short-term market adjusted returns for the cross-border M&A sampled.

Finally, hypothesis 8b which tested the relationship between differences between institutional collectivism values and average three-day market adjusted returns around the announcement of the M&A showed significant results in the

opposite direction to that which was predicted. Specifically, contrary to what was hypothesized, greater differences between merging firms in institutional collectivism values were associated with gains in short-term market adjusted returns of the M&A ( $\beta = .20, p < .01, R^2 = .04$ ). This result is line with results of previous studies of culture clash (e.g., Larsson & Risberg, 1998) which suggest that in some cases, culture differences along some dimensions of national culture may actually be favorable for M&A outcomes. Results for this set of hypothesis tests are summarized in Table 8.

The moderating role of macro industry in the relationship between national culture practices and values differences on the financial performance of cross-border M&A was then explored with short-term market adjusted returns as the dependent variable. The following is an example of an equation testing this interaction with macro industry and power distance practices differences entered into step one and the interaction between the two entered into step two of a hierarchical multiple regression:

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 (x_1 * x_2) \quad (8)$$

Where,

Y = stock price fluctuations (the average closing daily market adjusted returns for the three days surrounding the announcement of the M&A);

$x_1$  = macro industry context (e.g., 0 = services, 1 = manufacturing);

$x_2$  = absolute value of power distance practices difference scores;

$x_1 * x_2$  = macro industry\*absolute value of power distance practices difference scores.

This process was repeated for each culture dimension difference score, and was used to test relationships between macro industry\*national culture clash and average daily market adjusted returns for the three days surrounding the announcement of a M&A.

Using moderated multiple regression results, the exploratory question of an interaction between macro industry and culture clash received statistically significant support in only one of the fourteen analyses for the dependent variable of short-term market adjusted returns. Specifically, differential effects of culture clash on short-term market adjusted returns were found for services versus manufacturing M&A only for the culture dimension of performance orientation values ( $\beta = .25, p < .05$ ), with the moderated model explaining an additional 2 percent of the variance (i.e.,  $\Delta R^2 = .02$ ) in short-term market adjusted returns than the main effects model. This finding suggests that an increase in one unit of culture clash for the performance orientation values dimension is associated with an increase in short-term market adjusted returns of .25 for manufacturing compared to services M&A. Once again, culture clash seems to favor manufacturing, but not services M&A. Results for these tests are summarized in [Table 8](#).

*Results for analyses predicting long term market adjusted performance one, two, and three years after the completion of the M&A.* Prior to testing study hypotheses, the main effects of macro industry context, relative size, and deal

value on market adjusted performance for the first, second, and third years after M&A completion were tested. Once again, none of the study control variables were found to have a direct impact on any of the long-term market adjusted return measures, and were therefore excluded from the remaining analyses pertaining to these three dependent variables. Specifically, results for macro industry context reported non-significant beta weights of .08, .01, and .02 for market adjusted returns one, two, and three years after M&A completion. Results for the impact of relative size reported non-significant beta weights of .11, .06, and .03 for market adjusted returns one, two, and three years after M&A completion. Finally, results for the impact of deal value reported non-significant beta weights of -.11, -.04, and .15 for market adjusted returns one, two, and three years after M&A completion.

The following is an example of what a simple multiple regression equation investigating the relationship between power distance practices differences and long-term market adjusted returns looked like:

$$Y = \beta_0 + \beta_1 X_1 \quad (9)$$

Where,

Y = stock price fluctuations (average market adjusted returns for the first year following the completion of the M&A);

X<sub>1</sub> = absolute value of power distance practices difference scores.

This process was repeated for each culture dimension difference score three times (i.e., one for each of the three years following M&A completion), and was used as three additional tests of the hypotheses pertaining to the relationship between national culture clash and M&A financial performance.

The results for the first set of hypothesis tests relating culture clash to market adjusted M&A performance one year after completion were mixed. Specifically, hypotheses 4a, 6a, 8a, 10a, and 12a, and 14a stated that degree of similarity in the national culture practices of uncertainty avoidance, institutional collectivism, in-group collectivism, assertiveness, future orientation, and performance orientation respectively would be related to the financial performance of related U.S. based cross-border M&A, such that increases in culture differences would be related to decreases in financial performance. These hypotheses were not supported by the results of the current study for the dependent variable of market adjusted returns one year after completion. However, hypothesis 2a relating differences in power distance practices to market adjusted performance one year later was supported by the results of the current study ( $\beta = -.22, p < .01, R^2 = .05$ ). This suggests that the greater the differences between power distance practices in the societies represented by the merging firms, the worse the financial performance of the cross-border M&A sampled as reflected by market adjusted returns one year after completion. However, the exploratory question of an interaction between macro industry and culture clash for the dimension of power distance practices also received significant support ( $\beta = .35, p < .05$ ), with the moderated model explaining an

additional 3 percent of the variance (i.e.,  $\Delta R^2 = .03$ ) in market adjusted performance one year after M&A completion. Equation 10 is an example of a moderated regression equation used to test this interaction for the culture dimension of power distance practices:

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 (x_1 * x_2) \quad (10)$$

Where,

Y = stock price fluctuations (average closing daily market adjusted returns one year after M&A completion);

$x_1$  = macro industry context (e.g., 0 = services, 1 = manufacturing);

$x_2$  = absolute value of power distance practices difference scores;

$x_1 * x_2$  = macro industry\*absolute value of power distance practices difference scores.

This finding suggests a differential impact of power distance practices differences on financial performance depending on the macro industry in which related cross-border M&A are based, such that each unit increase in culture clash for this dimension is associated with an increase in market adjusted returns of .35 times for manufacturing compared to services M&A. Therefore, the main effects of power distance practices differences on market adjusted performance one year after completion cannot be meaningfully interpreted, as they are concluded to reflect the underlying interaction of industry by culture for this dimension.

These results are also summarized in [Table 9](#).

Using moderated multiple regression results, the exploratory question of an interaction between macro industry and culture clash also received significant support for one other GLOBE practices dimension – uncertainty avoidance. Specifically, findings suggest that uncertainty avoidance differences have a differential impact on market adjusted performance one year later for services compared to manufacturing M&A ( $\beta = .41, p < .05$ ), with the moderated model explaining an additional 3 percent of the variance ( $\Delta R^2 = .03$ ) in financial performance.

The results of the last set of hypothesis tests for the dependent variable of market adjusted performance one year after M&A completion were also mixed. Specifically, hypotheses 2b, 4b, 8b, 10b, 12b, and 14b were not supported by the results of the current study. That is, differences in the national culture as defined by the values dimensions of power distance, uncertainty avoidance, in-group collectivism, assertiveness, future orientation, and performance orientation were not related to market adjusted returns one year after completion for the cross-border M&A sampled. However, hypothesis 6b pertaining to the relationship between differences in institutional collectivism values and market adjusted returns of the M&A one year after completion was supported ( $\beta = -.22, p < .01, R^2 = .05$ ). This suggests that the greater the differences between institutional collectivism values in the societies represented by the merging firms, the worse the financial performance of the cross-border M&A, as reflected by market adjusted returns one year after completion. Once again, however, the main effects of institutional collectivism values differences on market adjusted

performance one year later cannot be meaningfully interpreted, because the moderated model exploring a two-way interaction between macro industry and institutional collectivism values differences for this dependent variable was significant ( $\beta = .35, p < .01$ ), explaining an additional 5 percent of the variance (i.e.,  $\Delta R^2 = .05$ ) in financial performance. This finding also suggests that the effects of culture clash on this dimension differ based on the macro industry context of the M&A, such that culture clash on institutional collectivism values is reported to be favorable for manufacturing, but not services cross-border M&A. Results for this set of hypothesis tests are summarized in [Table 9](#).

Finally, [hypotheses 2a](#) and [2b](#), [hypotheses 4a](#) and [4b](#), [hypotheses 6a](#) and [6b](#), [hypotheses 8a](#) and [8b](#), [hypotheses 10a](#) and [10b](#), [hypotheses 12a](#) and [12b](#), and [hypotheses 14a](#) and [14b](#) were not supported for long-term market adjusted performance two or three years after the completion of the M&A. Tests of the moderated models for all of the GLOBE culture dimensions and macro industry were not significant, suggesting that for the cross-border M&A sampled, the interactive effects of industry with culture on market adjusted performance seemed to disappear over time. Results for these two sets of hypotheses tests are summarized in [Table 10](#) and [Table 11](#) respectively.

#### *Summary of Significant Results*

*Predictors for M&A completion.* Results suggest that *relative size* is significantly related to M&A completion, such that the greater the differences in the ratio of the total assets of the combining firms at the time of the M&A, the greater the likelihood that the M&A will complete. Specifically, a M&A is 1.36

times more likely to complete as opposed to withdraw for each \$1million difference in the total assets of the combining firms.

Although findings did not show support for the hypotheses relating culture clash to M&A completion, *practically significant effects* were reported for all of the culture dimensions except for uncertainty avoidance values. However, the only culture dimension which showed practically significant effects in the hypothesized direction was performance orientation practices. For all of the other culture dimensions that showed practically significant effects, results indicate that increases in culture differences are associated with increases in the odds of a M&A completing as opposed to it withdrawing.

*Predictors for M&A performance, defined as average 3-day raw returns surrounding the announcement of the M&A.* Results suggest that the *macro industry* context (i.e., services vs. manufacturing) within which a M&A operates is significantly related to the short-term raw returns of the M&A. Specifically, all other variables held constant, short-term raw returns for manufacturing M&A (coded '1') were .19 times lower than those for services M&A (coded '0').

Although no main effects were reported for the relationship between culture clash and average three day raw returns, the exploratory questions of an interaction between *macro industry context* and culture clash received significant support for the dimensions of *power distance practices, institutional collectivism values, assertiveness values, and performance orientation values*. Overall, results suggest that for the dependent variable of short-term raw returns, manufacturing M&A are at an advantage compared to services M&A, with

increases in culture clash being associated with gains in short-term raw returns for manufacturing, but not for services M&A.

*Predictors for M&A performance, defined as average 3-day market adjusted returns surrounding the announcement of the M&A.* Increases in *uncertainty avoidance values* differences between merging firms were related to decreases in short-term market adjusted returns. However, contrary to what was expected, increases in *institutional collectivism values* differences between merging firms were related to increases in short-term market adjusted returns.

The exploratory questions of an interaction between *macro industry context* and culture clash received significant support for the dimension of *performance orientation values*. Overall, results suggest that for the dependent variable of short-term market adjusted returns, manufacturing M&A are at an advantage compared to services M&A, with increases in culture clash being associated with gains in short-term market adjusted returns for manufacturing, but not for services M&A.

*Predictors for M&A performance, defined as average market adjusted returns one year after the completion of the M&A.* Increases in both *power distance practices* differences and *institutional collectivism values* differences between merging firms in U.S. based related cross-border M&A were related to decreases in market adjusted returns one year later. However, the moderated tests for *macro industry context x power distance practices* as well as that for *macro industry context x institutional collectivism values* were also significant. This finding suggests that increases in culture differences for these dimensions

are associated with gains in market adjusted returns one year later for manufacturing, but not services M&A.

The exploratory questions of a two-way interaction between macro industry context and culture clash also received significant support for the dimension of *uncertainty avoidance practices*. Overall, results suggest that for the dependent variable of market adjusted returns one year later, manufacturing M&A are at an advantage compared to services M&A, with increases in culture clash being associated with gains in market adjusted returns one year later for manufacturing but not for services M&A.

Discussion

Chapter 9

The current study was an investigation of the role that national culture differences between firms engaging in U.S. based cross-border M&A play in the realization of M&A goals. Two sets of hypotheses were addressed. The first argued that greater national culture differences would be associated with a decreased likelihood that the M&A would complete. This set of hypotheses was not supported by the results of the current study. The second argued that greater national culture differences would be related to both short-term and long term decreases in the financial performance of the M&A. This set of hypotheses received partial, but limited support from the results of the current study. Specific findings relating to the dependent variables of completion and financial performance will be discussed shortly. First, one of the more interesting general findings of the current study (i.e., the restriction of range in the national cultures represented by the cross-border M&A) will be discussed.

Findings from the current study are in agreement with those of previous studies (e.g., Cartwright, 1998) that report that although the U.S. has been a major player in the arena of international M&A, U.S. cross-border M&A activity still seems to focus on partnerships with firms based in countries with similar national cultures. That is, although tests of the hypotheses presented inconclusive findings, data does suggest that U.S. based corporations tend to prefer to acquire companies based in similar national cultures to their own, and actually make more attempts to partner with such companies when considering foreign targets. Specifically, when selecting cases of U.S. based M&A between publicly traded firms operating in related industry sectors, the sample of national

cultures remaining in the current study was extremely restricted in range. That is, 69 percent of the target firms that met the sampling criteria set for the current study were based in countries, which according to findings from Project GLOBE, cluster with the U.S. in the Anglo group of national culture for both practices and values.

Once again, the GLOBE study hypothesized and confirmed 10 clusters of national culture that they felt accurately summarized the values and practices of the 61 nations included in their investigation. Of the remaining M&A cases included in the current study, 4% were with target firms from the Nordic European cluster, 8% were with firms from the Germanic European cluster, 9% were with firms from the Latin European cluster, 4% were with firms from the Latin American cluster, 1% were with firms from the Eastern European cluster, 3% were with firms from the Confucian Asian cluster, and 1% were with firms from the Southern Asian cluster. It should be noted that culture differences increase in the order in which the clusters are presented, and as such, the current study included a limited number of cases of M&A between firms based in very different national cultures.

Range restriction for the independent variables in the current study was further compounded by the fact that country scores for the cultural factors reported by the GLOBE study were coded using likert type scale data. This data was then used to code the culture differences of the M&A in the current study. Unfortunately, difference scores computed based on this data yielded scores that showed little overall variability for the M&A in terms of both societal practices and

values. That is, even though 31% of the M&A were based in countries from societal clusters which according to the GLOBE study differ significantly from the U.S. in terms of their societal practices and values, difference scores computed based on the likert type score data for the countries investigated showed little overall variance in national culture, as is reflected by the fact that difference scores reported for the M&A national cultures ranged from 0 to 1.99 on a possible scale of differences of 0 to 6.99. Therefore, it was difficult to accurately draw conclusions for the effects of national culture clash on both the completion and financial performance of cross-border M&A based only on the reported results.

#### *Findings for the Completion of M&A*

Once again, the first set of hypotheses tested in the current study investigated the relationship between differences in national culture and the completion of U.S. based related cross-border M&A. These hypotheses were not supported by the results of the current study. That is no statistically significant relationships were reported for the impact of differences between the combining firms on any of the GLOBE national culture constructs and M&A completion.

Data do suggest that national culture differences may have a *practically* significant effect on the odds of a cross-border M&A completing as opposed to withdrawing. Specifically, effect sizes with odds ratios of greater than 1.50 were reported for all of the GLOBE dimensions except uncertainty avoidance values. Once again, an odds ratio of 1.50 or greater was the decision rule used by the current study to accept a finding as *practically* significant for the categorical data

analyses. An odds ratio of 1.50 indicates the odds of a M&A completing are 1.5 times greater for a given one unit change in value of an independent variable.

Interestingly, as was previously noted, with the exception of the performance orientation practices dimension, for which effects were suggestive of a relationship with completion in the hypothesized direction, results for 12 of the 13 culture dimension hypotheses suggest that culture clash at the societal level may actually be favorable for M&A completion. For example, results suggest that the odds of a M&A completing is two times greater for each unit increase in power distance practices differences. Some of the other odds ratios examining the role that culture clash plays in the odds a M&A will complete are even more striking. For example, results suggest that a M&A completing is 5 times greater for each unit increase in institutional collectivism practices differences. These findings should all be interpreted with caution, however, because, as previously noted, the confidence intervals for the odds ratios were large and increase in width as the odds ratios for the culture dimensions themselves increase.

At this point, findings suggest that although U.S. based corporations prefer to partner with companies based in similar national cultures, culture clash may actually be favorable for M&A completion. These counterintuitive results are difficult to interpret without further probing the question of whether culture clash is favorable to M&A completion. Unfortunately, the current study precludes the testing of other potential explanatory mechanisms that could be driving these effects. For example, results could be due to an alternative variable that has not

been tapped, but nonetheless moderates the effects of culture clash on M&A completion. The results for the first set of hypothesis tests could also simply be due to a methodological weakness of the current study to detect potentially significant results. That is, the sample of M&A investigated was disproportionately distributed between the categories of M&A completion or withdrawal, with the majority of the M&A that met the sampling criteria completing. The disproportionate categories may have contributed to the lack of statistical power to detect any potentially statistically significant effects for the dependent variable of completion.

Although the current study did not report statistically significant effects for national culture differences on M&A completion, a significant effect of relative size on M&A completion was reported. Specifically, results suggest that the greater the differences in relative size between the acquirer and the target, the more likely a M&A is to complete. These results could be interpreted to mean that if all else is held constant and a target is small relative to its buyer, the acquiring firm may have more power to drive the M&A to completion than if the two firms were more equal in size. Relative size may also be interacting with culture differences in the current study and may be driving the results pertaining to culture clash and completion. A preliminary test of this moderated effect did not show statistically significant results; however this too could be a result of the low power of the current study to detect potentially statistically significant results.

In sum, relative size may be important to consider when assessing the impact of factors related to cross-border M&A completion. Specifically, if the

completion of a M&A is considered an important outcome, U.S. acquirers may be advised to target smaller foreign firms, in order to increase their odds of completion. However, contrary to previous findings (e.g., Chatterjee et al., 1992; Weber et al., 1996) the current study did not report any main effects of relative size on the financial performance of M&A. Therefore, if the performance of the M&A is the true outcome of interest, the impact of relative size on M&A completion may not matter to U.S. executives seeking foreign targets.

#### *Findings for Financial Performance of M&A*

The second set of hypotheses tested in the current study investigated relationships between national culture clash and the financial performance of U.S. based cross-border M&A. Findings relating culture clash to M&A performance were mixed. Specifically, differences between combining firms on some of the GLOBE dimensions of national culture were found to be significantly related to the financial performance of M&A when short-term measures of stock price fluctuations (i.e., three day raw and market adjusted returns), as well as market adjusted returns one year after M&A completion were the dependent variables being tested. However, no statistically significant relationships were reported between national culture clash and long-term M&A performance, for both operational (i.e., ROA three years later) or market measures (i.e., stock price fluctuations two and three years later) of financial performance. This finding could be artifactual (e.g., a result of the range restriction in the independent variables), or it could represent a meaningful result; that is national culture clash may not be as important as was originally proposed for the realization of long-

term goals in the case of U.S. based cross-border M&A. More research is needed to clarify this result.

As was discussed in the results section of the current study, other findings also suggest that culture clash may have differential effects on financial performance depending on the metric used to evaluate the financial success of a M&A. For example, differences in uncertainty avoidance values were found to be related to market adjusted returns of the M&A for the three days surrounding the announcement, but were unrelated to raw returns or long-term M&A performance. Also, for at least one dimension of national culture (i.e., institutional collectivism values) clash was found to be favorable for market adjusted returns for the three days surrounding the announcement of the M&A, but unfavorable for market adjusted returns one year following M&A completion. These results could be explained by the fact that in the current study market adjusted returns surrounding the announcement of the M&A were significantly correlated to market adjusted returns one year ( $r = -.25, p < .01$ ) and two years ( $r = -.24, p < .01$ ) post M&A completion, but they were not significantly correlated with market adjusted returns three years later ( $r = .04, ns$ ). Moreover, the significant relationships were in the inverse direction, suggesting that in the cross-border M&A sampled, a short-term loss in market performance was typically associated with long-term gains for the two years following completion, a finding which raises a word of caution when choosing the criteria to evaluate M&A performance.

Differences were also reported for the main effects of macro industry on the financial performance of M&A depending on the specific operationalization of financial performance tested. Specifically, the macro industry context of a M&A was found to be significantly related to average raw returns for the three days surrounding the announcement of a M&A, but was not significantly related to market adjusted returns or ROA. That is, findings suggest an industry effect on short-term raw returns, such that everything else held constant, services M&A outperformed manufacturing M&A at the time the M&A were announced. This industry effect could be capturing some of the noise in raw returns that are a function of not adjusting for environmental fluctuations (e.g., market performance at the time of the M&A announcement) and should therefore be interpreted with caution.

In sum, although minimal support was found for the second set of hypotheses; preliminary findings do suggest that it would be premature to dismiss the issue of national culture clash as a potential barrier for U.S. based cross-border M&A. That is, findings are suggestive of the fact that differences between corporations on select dimensions of culture (e.g., uncertainty avoidance, institutional collectivism, and power distance) may explain additional variance in the financial outcomes of cross-border M&A, and that these differences may not always be negative (e.g., differences in institutional collectivism values were positively related to three-day market adjusted returns). In fact, in their study Very et al. (1998) found that sometimes, culture differences lead to attraction rather than acculturative stress. Findings from this study take

this one step further and suggest that sometimes clash may also lead to better performance.

The lack of statistically significant results from this study can be further interpreted by taking a closer look at the GLOBE data itself. For example, as was discussed in the literature review of this study, with the exception of the in-group collectivism and assertiveness dimensions of societal culture, the GLOBE study reported a significant negative correlation for each dimension between the practices and values scales. For example, a significant negative correlation was reported between the GLOBE societal practices and values scores for power distance ( $r = -.43, p < .01$ ). In other words, those societies with high levels of existing power distance, reported desiring less power distance, whereas those societies with lower degrees of power distance reported desiring a higher degree of power distance (Carl, et al., 2004). This was also the case for the dimensions of uncertainty avoidance, institutional collectivism, assertiveness, future orientation, and performance orientation.

Applying these findings to an investigation of cross-border M&A may not be as straightforward as was originally proposed. For example, a firm based in a country with reported high levels of societal power distance in practice may actually desire to be acquired by a firm based in a country with reported low levels of societal power distance in practice. Therefore hypothesizing gains or losses in performance in such cross-border M&A based on the cultural dimension of power distance alone is tricky. For example, GLOBE findings place the U.S. as moderate in existing societal power distance ( $M = 4.88$ , with 1 = low and 7 =

high power distance) and relatively low on valued degrees of societal power distance ( $M = 2.85$ , with 1 = low and 7 = high power distance). If a U.S. firm acquires another firm, which unlike the U.S. has extremely high societal power distance in practice, but that like the U.S. values lower levels of societal power distance, the expected clash of cultures on this level may not be evidenced, at least with respect to the degree of valued power distance. Therefore, before dismissing the role of culture clash as unimportant in the study of cross-border M&A, alternative explanatory mechanisms for current study results such as these should be examined.

#### *Moderating Effects of Macro Industry Context*

Some of the most interesting findings of the current study were reported for the tests of the moderating effects of macro industry context in the relationship between culture and M&A performance. Specifically, some of the culture variables (e.g., assertiveness values, performance orientation values, and uncertainty avoidance practices) that were not found to have any main effects on M&A performance were found to have a differential impact on the financial outcomes of M&A when accounting for any potential moderating effects of industry. Overall, macro industry context did show a moderating effect in the relationship between culture and M&A performance for five of the fourteen GLOBE culture dimensions (i.e., power distance practices, uncertainty avoidance practices, institutional collectivism values, assertiveness values, and performance orientation values). In all of these cases, for each unit increase in culture clash, manufacturing M&A showed better financial performance

compared to services M&A. This finding lends preliminary support to the suggestion in the literature (e.g., Weber, 1996) that the industry context in which a cross-border M&A takes place may influence the role and effects of cultural differences on the financial performance of the combined firm.

As was previously discussed, it has been found that companies within the services sector rely more heavily on social control mechanisms to direct members' actions compared to companies in the manufacturing sector, which rely more on formal control mechanisms (Pablo, 1994). This research also suggests that 'softer' skills, such as interpersonal communication, are much more important for companies operating in the services sector, compared to those operating in the manufacturing sector, due to the very basic difference in the nature of the product being delivered. Specifically, service organizations compete largely on intangible outputs that reflect a set of relationships among organizational members (Pablo, 1994). The technology-driven objective structure that reduces executive discretion and options for decision making in manufacturing organizations is replaced in services organizations by subjective, value-driven structures that control both the behavior of executives and the interactions of organizational members with customers (Van Maanen & Kunda, 1989, as cited in Pablo, 1994). For these reasons, it has been suggested that cultural differences may be more critical to the effectiveness of a M&A in the service compared to one in the manufacturing sector (Weber, 1996). This suggestion has only been made, however, for the role of organizational culture clash in the context of domestic M&A. The current study provides the first known

evidence for the existence of a similar industry effect in the context of cross-border M&A. Future research should focus on more detailed analyses involving industry effects on a more micro level as well (e.g., differential impact of culture clash for M&A in the financial services versus the food services industries).

#### *Conclusions, Limitations, and Directions for Future Research*

The current study was an exploratory investigation of the impact of national not organizational culture on the outcomes of U.S. based cross-border M&A. As such, it was one of the first known attempts to understand the unique effects of national culture clash on cross-border M&A, using archival research data to maximize the sample size and to ensure that data would be readily available. However, there are a number of limitations of the current study that will be addressed, which point to future research that may be helpful in order to continue to examine the role of national culture in cross-border M&A outcomes.

One of the major limitations of the current study is the fact that the criteria used to select cross-border M&A cases resulted in a sample of cultures that was extremely restricted in range in terms of variability of culture differences. Specifically, 69 percent of the target firms that met the sampling criteria stem from national cultures which, according to findings by Project GLOBE, cluster with the U.S. in the Anglo group of national culture in terms of both societal practices and values. Future research aimed at capturing a greater degree of culture variability than that of the current study may benefit by using less stringent sampling criteria (e.g., public as well as private firms and foreign

acquirers of U.S. targets), to see if study findings generalize to all cross-border M&A with U.S. firms.

According to results of the current study, the majority of the firms with national cultures that can be classified as Anglo by Project GLOBE were based in the U.K. It can be safely assumed that organizations based in these national cultures have similar business systems and practices to each other and to the U.S. Furthermore, Anglo countries have long-standing trading relationships with each other, with few political barriers and/or laws in place preventing or making cross-border M&A between them difficult. However, in non-Anglo cultures, M&A may often be very difficult or impossible to initiate and when they are initiated are most likely subject to such intense political pressure that they often cannot complete. Because of these legal and political barriers, U.S. organizations may find it much more difficult to merge with or acquire Chinese, German, or French firms, yielding a disproportionate amount of U.S. based cross-border M&A with firms based in similar national cultures. Therefore, it is very possible that future research using less stringent sampling criteria may also find a limited number of cross-border M&A between U.S. firms and other organizations with significantly different national cultures.

Another aspect of range restriction in the independent variables of the current study, which was previously discussed and is a limitation of the current study, stems from the use of GLOBE data to code the national culture differences of the M&A investigated. Once again, the use of likert type data to capture culture variability resulted in difference scores that ranged from 0 to a maximum of 1.99.

Future research would definitely benefit from adding an additional typology of national culture into the coding of culture differences to better capture culture variability for the sample of cross-border M&A investigated than the one used by the current study. Also, future investigations of cross-border M&A may actually benefit more by coding other aspects of differences between merging firms on the societal level of analysis than approximations of cultural values and practices. For example, coding differences in language, investor patterns, and the complexity of the business systems of the nations in which the merging firms are based, as well as differences in regulations and laws governing M&A may be more salient for explaining cross-border M&A outcomes.

Finally, an alternative explanation for the low variability of culture differences witnessed in the current study should also be considered. Specifically, it can be argued that with modernization, globalization, and the mass influence of western cultures through the widespread use of things like cable television and the World Wide Web, cultural differences on the societal level may be becoming less obvious, at least in terms of common business practices and values. National culture differences may therefore be less important for the outcome of cross-border M&A than organizational culture differences.

As stated previously, it has been suggested that for domestic M&A the most salient issue for partner selection will be the compatibility of organizational cultures; whereas for cross-border M&A the most salient issue for partner selection will be compatibility of national cultures (Cartwright & Cooper, 1996). However, it can be argued that cross-border M&A are cross-cultural at both the

national and organizational levels of analysis. As such, in the case of cross-border M&A, national and organizational manifestations of culture may be confounded, making it difficult to tease apart the effects of one versus the other on M&A outcomes. Therefore, the focus of the current study on the investigation of national culture also highlights one of its major limitations. As stated by Malekzadeh and Nahavandi (1998), the real challenge in studies of cross-border M&A is to investigate the role of national culture, as well as organizational leadership and culture, since they all interact to affect the successful implementation of a cross-border M&A. As such, although national culture and organizational culture are hypothesized to be separate constructs (e.g., Weber et al., 1996), they are in fact related, and the simultaneous investigation of both manifestations of culture in future studies of cross-border M&A should be central to continued research in this area.

One final methodological limitation of the current study that should be addressed is the use of difference scores to estimate the culture compatibility of the combining firms. Although difference scores have been widely used in organizational behavior research (Edwards, 1994) to estimate the congruence between two constructs, their use has been heavily criticized in the statistical literature (e.g., low reliability, providing conservative estimates of statistical tests, etc.; for a complete discussion see Edwards, 1994, 2001). Polynomial regression analysis has been offered as an alternative to the use of difference scores in congruence research, but was not used in the current research because difference scores were used to assess the impact of a set of independent

variables on M&A outcomes, not to provide an estimate of the outcomes themselves. Nonetheless, future research would benefit from adding other approximations of culture differences in order to see if study results will change.

In sum, more research is needed to better understand the results of the current study, before dismissing national culture clash as a problem for cross-border M&A. For example, following the logic of the Attraction-Selection-Attrition (ASA) model proposed by Schneider (1987), it could be the case that as a M&A matures, problems associated with culture differences are minimized by employee turnover, such that those who do not adapt to the new environment leave the organization over time or are terminated. Also, it is likely that if culture clash emerges as a major problem during the M&A integration period, interventions will be introduced by the acquiring firms to manage the clash of cultures and minimize its effects. In fact, Very et al. (1998) found that the age of a M&A was positively correlated with performance. Therefore, the fact that any culture differences in the current study that were reported disappeared over time could be a direct result of the age of a M&A and time allowed to work out problems related to culture clash.

Cross-border M&A present a unique situation where culture differences between two countries may be more apparent at the onset compared to domestic M&A. Therefore, greater care may be taken in the planning stages of these types of M&A to anticipate problems associated with culture clash and minimize their effects, especially in the case of M&A between very different national cultures. In fact, Larsson and Risberg (1998) found that cross-border M&A with very different

organizational cultures had the greatest degree of acculturation. They interpreted these results as suggesting that cultural differences in cross-border M&A are in fact more obvious at the beginning of the M&A. They further suggest that as a result, managers from acquiring firms are more sensitive to these differences and take greater care to manage them throughout the acculturation process, through, for example greater socialization efforts. More research is needed to understand these potential explanatory mechanisms and to clarify study results.

Future research should also focus on testing more indirect effects of culture clash on M&A completion. Overall results suggest that for related U.S. based cross-border M&A, the relationship between culture and M&A outcomes may not be as straightforward as was suggested by the study hypotheses. Future research should attempt to make more specific predictions about the nature of the relationships between certain dimensions of culture and M&A outcomes, both in terms of M&A completion and performance. For example, Larsson & Risberg (1998) conclude that cultural differences do not necessarily pose a direct threat to the success of cross-border M&A. Results from the current study suggest that more research is needed to understand when culture clash on a societal level may actually be favorable, when it is not, and when it is insignificant.

Finally, the differential effects of culture clash on the financial performance of M&A for the same dimension of culture suggests that future research should take greater care to match the specific goals of cross-border M&A with the financial criteria used to evaluate success. For example, one argument in the literature (e.g., Weber, 1996) is that because related M&A involve a high degree

of integration, it can take years before the effects of the M&A on financial performance are realized. Therefore, for related M&A it is suggested that the impact of culture differences be assessed at least three years after completion. However, the results of the current study show that any significant effects of national culture on the financial performance of cross-border M&A that were reported for short-term measures of performance disappeared as the M&A matured. This finding questions the recommendation in the literature and suggests that both short-term and long-term measures of financial performance be assessed in M&A research of culture issues.

Appendixes

Chapter 11

Table 1

*Countries Sampled and Frequency of U.S. Based M&A Cases Completed and Withdrawn Within Each*

Target Nation	Frequency of U.S. based M&A		<i>n</i>
	Completed	Withdrawn	
Argentina	1	0	1
Australia	14	2	16
Bahamas <sup>a</sup>	1	0	1
Belgium <sup>a</sup>	0	1	1
Bermuda <sup>a</sup>	4	2	6
Brazil	2	0	2
British Virgin Islands <sup>a</sup>	1	0	1
Cameroon <sup>a</sup>	1	0	1
Canada	66	15	81
Chile <sup>a</sup>	3	1	4
China	1	0	1
Denmark	3	0	3
France	10	0	10
Germany	12	0	12
Greece	1	1	2
Hong Kong	2	0	2

Table 1 (continued)

Target Nation	Frequency of U.S. based M&A		<i>n</i>
	Completed	Withdrawn	
Israel	6	0	6
Italy	2	2	4
Japan	1	0	1
Mexico	5	1	6
Netherlands	4	1	5
New Zealand	2	0	2
Norway <sup>a</sup>	3	5	8
Peru <sup>a</sup>	1	0	1
Poland	1	0	1
Singapore	1	0	1
South Africa	1	0	1
South Korea	1	0	1
Sweden	10	0	10
Switzerland	1	1	2
Taiwan	1	0	1
Thailand	1	0	1
United Kingdom	48	12	60
Venezuela	1	0	1
Total <i>n</i>	212	44	256

<sup>a</sup>Countries that were not included in the GLOBE study.

Table 2

*Frequency of M&A Within the Macro Industries of Services and Manufacturing  
and the Micro Industries Nested Within Each*

Services	
Micro Industry	<i>n</i>
Food, tobacco, textile, apparel, lumber, furniture, petroleum	1
Transportation, Communication, Electric, Gas, and Sanitary	33
Wholesale Trade	9
Financial, Insurance, and Real Estate	17
Hotels and other Lodging, Personal, Business, Automotive and other Repair, Entertainment and Recreation, Legal, Social, Accounting	56
Public Administration	2
<i>n</i>	118
Manufacturing	
Micro Industry	<i>n</i>
Construction	44
Food, Tobacco, Textile, Apparel, Lumber, Furniture, Petroleum	45
Rubber, leather, stone, metal, industrial machinery, equipment	49
<i>n</i>	138

Table 3

*Contingency Table from Crosstab for Target Nation and Macro Industry of the M&A.*

Target Nation	Macro Industry		<i>n</i>
	Services	Manufacturing	
Argentina	1	0	1
Australia	3	13	16
Bahamas <sup>a</sup>	1	0	1
Belgium <sup>a</sup>	0	1	1
Bermuda <sup>a</sup>	5	1	6
Brazil	1	1	2
British Virgin Islands <sup>a</sup>	0	1	1
Cameroon <sup>a</sup>	1	0	1
Canada	30	51	81
Chile	2	2	4
China	1	0	1
Denmark	1	2	3
France	5	5	10
Germany	6	6	12
Greece	2	0	2
Hong Kong	0	2	2

Table 3 (continued)

Target Nation	Macro Industry		<i>n</i>
	Services	Manufacturing	
Israel	5	1	6
Italy	1	3	4
Japan	0	1	1
Mexico	4	2	6
Netherlands	3	2	5
New Zealand	1	1	2
Norway <sup>a</sup>	2	6	8
Peru <sup>a</sup>	1	0	1
Poland	1	0	1
Singapore	1	0	1
South Africa	0	1	1
South Korea	1	0	1
Sweden	4	6	10
Switzerland	0	2	2
Taiwan	0	1	1
Thailand	0	1	1
United Kingdom	34	26	60
Venezuela	1	0	1
Total <i>n</i>	118	138	256

<sup>a</sup>Countries that were not included in the GLOBE study.

Table 4

*Range and Central Tendency Data for Deal Value of the M&A, Assets of the Acquirer, and Assets of the Target Firms at the time of the M&A (in U.S. Dollars)*

Deal Value (in millions)			
Range	Mean	Median	Mode
\$50 - \$840,000	\$25,231	\$450	\$61
Total Assets of the Acquiring Firms (in millions)			
Range	Mean	Median	Mode
\$1.1 - \$1,097,190	\$24,780	\$2,779	\$8,283
Total Assets of the Target Firms (in millions)			
Range	Mean	Median	Mode
\$1.1 - \$57,360	\$1,070	\$193	\$42

Table 5

*Summary of Hierarchical Logistic Regression Analyses for Variables Predicting Completion of U.S. Based Cross-Border M&A (N = 204)*

Variable	B	SE B	Exp(B)	95% C.I. for Exp(B)
Step 1				
Relative Size	.31*	.13	1.36	1.06 – 1.74
Step 2				
GLOBE practices scale				
Power Distance	.68	1.11	1.96 <sup>a</sup>	.22 – 17.32
Uncertainty Avoidance	.49	.82	1.60 <sup>a</sup>	.33 – 8.13
Institutional Collectivism	1.65	1.48	5.22 <sup>a</sup>	.29 – 94.37
In-Group Collectivism	1.04	.87	2.82 <sup>a</sup>	.51 – 15.47
Assertiveness	1.01	1.20	2.75 <sup>a</sup>	.26 – 28.89
Future Orientation	.39	1.50	1.50 <sup>a</sup>	.08 – 28.16
Performance Orientation	-.79	.83	.45 <sup>b</sup>	.09 – 2.32
GLOBE values scale				
Power distance	.96	2.20	2.62 <sup>a</sup>	.04 – 196.08
Uncertainty Avoidance	.19	.523	1.21	.43 – 3.37
Institutional Collectivism	.55	.72	1.73 <sup>a</sup>	.42 – 7.02
In-Group Collectivism	.98	2.00	2.67 <sup>a</sup>	.05 – 133.69
Assertiveness	.56	.76	1.74 <sup>a</sup>	.40 – 7.68

Table 5 (continued)

Variable	<i>B</i>	<i>SE B</i>	Exp( <i>B</i> )	95% C.I. for Exp( <i>B</i> )
Future Orientation	.45	1.31	1.56 <sup>a</sup>	.12 – 20.25
Performance Orientation	2.64	2.17	14.01 <sup>a</sup>	.20 – 979.02

*Note.* Each culture variable in step 2 was run in a separate analysis.

<sup>a</sup>The odds ratio corresponding to the relationship between difference in culture and completion of the M&A is greater than 1.50, suggesting a practically significant effect for this variable.

<sup>b</sup>Performance orientation practices was the only culture variable to show a practically significant effect in the direction of the study hypotheses. Specifically, for each one unit increase in performance orientation practices difference, M&A were 2.2 times more likely to withdraw.

\* $p < .05$ .

Table 6

*Summary of Multiple Regression Analyses for Culture Variables and Culture\*Macro Industry Interactions Predicting ROA of U.S. Based Cross-Border M&A Three Years Following Completion (N = 87)*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
GLOBE practices scale				
Power Distance	.12	.18	.07	.01
Uncertainty Avoidance	.05	.12	.05	0
Institutional Collectivism	.09	.16	.06	0
In-Group Collectivism	.05	.10	.06	0
Assertiveness	.05	.17	.03	0
Future Orientation	-.09	.28	-.04	0
Performance Orientation	.22	.18	.13	.02
Macro Industry for GLOBE practices*National Culture Differences				
Power Distance*Macro				
Industry	.11	.39	.06	0
Uncertainty Avoidance*				
Macro Industry	.01	.25	.01	0
Institutional				
Collectivism*Macro Industry	.17	.38	.12	0

Table 6 (continued)

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
In-Group				
Collectivism*Macro Industry	.22	.20	.18	.01
Assertiveness*Macro				
Industry	.05	.40	.04	0
Future Orientation*Macro				
Industry	.06	.59	.03	0
Performance				
Orientation*Macro Industry	.28	.38	.14	.01
GLOBE values scale				
Power Distance	.12	.42	.03	.02
Uncertainty Avoidance	-.07	.09	-.07	.01
Institutional Collectivism	.08	.12	.07	0
In-Group Collectivism	.07	.31	.03	0
Assertiveness	.13	.12	.12	.01
Future Orientation	.21	.22	.10	.01
Performance Orientation	.23	.27	.09	.01

Table 6 (continued)

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
Macro Industry for GLOBE values*National Culture Differences				
Power Distance*Macro				
Industry	.34	.84	.11	0
Uncertainty				
Avoidance*Industry	-.16	.19	-.32	.01
Institutional				
Collectivism*Macro Industry	.15	.26	.12	0
In-Group				
Collectivism*Macro Industry	-.01	.71	-.01	0
Assertiveness*Macro				
Industry	.15	.25	.15	0
Future Orientation*Macro				
Industry	.25	.54	.12	0
Performance				
Orientation*Macro Industry	.42	.61	.16	.01

*Note.* Each culture variable in step 2 was run in a separate analysis.

Table 7

*Summary of Multiple Regression Analyses for Culture Variables and Culture\*Macro Industry Interactions Predicting Average Raw Returns for the Three Days Surrounding the Announcement of the M&A (N = 183)*

Variable	B	SE B	$\beta$	$\Delta R^2$
Step 1				
Macro Industry Context	-.02	.01	-.19**	.04 <sup>a</sup>
GLOBE practices scale				
Step 2				
Power Distance	.01	.03	.04	0
Uncertainty Avoidance	0	.02	-.02	0
Institutional Collectivism	-.01	.02	-.05	0
In-Group Collectivism	0	.02	-.01	0
Assertiveness	0	.02	.01	0
Future Orientation	-.03	.03	-.06	0
Performance Orientation	-.01	.02	-.04	0
Macro Industry for GLOBE practices* National Culture Differences				
Power Distance*Macro				
Industry	.11	.05	.29*	.02 <sup>a</sup>
Uncertainty				
Avoidance*Industry	.05	.04	.23	.01

Table 7 (continued)

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
Institutional				
Collectivism*Macro Industry	.08	.05	.22	.02
In-Group				
Collectivism*Macro Industry	.04	.03	.15	.01
Assertiveness*Macro				
Industry	0	.05	-.01	0
Future Orientation*Macro				
Industry	.05	.07	.11	0
Performance				
Orientation*Macro Industry	.02	.05	.06	0
GLOBE values scale				
Power distance	.02	.05	.03	0
Uncertainty Avoidance	-.02	.01	-.12	0
Institutional Collectivism	.02	.02	.12	.02
In-Group Collectivism	0	.04	0	0
Assertiveness	-.03	.02	.12	.02
Future Orientation	.03	.03	.08	.01
Performance Orientation	-.03	.04	-.05	0

Table 7 (continued)

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
Macro Industry for GLOBE values*National Culture Differences				
Power Distance*Macro				
Industry	.08	.09	.13	0
Uncertainty				
Avoidance*Industry	0	.03	-.01	0
Institutional				
Collectivism*Macro Industry	.06	.03	.23*	.02 <sup>a</sup>
In-Group				
Collectivism*Macro Industry	.11	.08	.20	.01
Assertiveness*Macro				
Industry	.09	.04	.40*	.03 <sup>a</sup>
Future Orientation*Macro				
Industry	.06	.07	.13	0
Performance				
Orientation*Macro Industry	.32	.09	.46**	.07 <sup>a</sup>

*Note.* Each culture variable in step 2 was run in a separate analysis.

<sup>a</sup>Finding suggests a small but practically significant effect.

\* $p < .05$ . \*\* $p < .01$ .

Table 8

*Summary of Multiple Regression Analyses for Culture Variables and Culture\*Macro Industry Interactions Predicting Average Market Adjusted Returns for the Three Days Surrounding the Announcement of the M&A (N = 183)*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
GLOBE practices scale				
Power Distance	.04	.03	.11	.01
Uncertainty Avoidance	0	.02	0	0
Institutional Collectivism	0	.02	.01	0
In-Group Collectivism	.02	.02	.11	.01
Assertiveness	.02	.02	.06	0
Future Orientation	.02	.04	.04	0
Performance Orientation	.01	.02	.04	0
Macro Industry for GLOBE practices*National Culture Differences				
Power Distance*Macro				
Industry	.08	.05	.19	.01
Uncertainty				
Avoidance*Industry	.02	.04	.05	0
Institutional				
Collectivism*Macro Industry	-.02	.05	-.06	0

Table 8 (continued)

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
In-Group				
Collectivism*Macro Industry	-.01	.03	-.02	0
Assertiveness*Macro				
Industry	-.05	.05	-.16	.01
Future Orientation*Macro				
Industry	0	.07	0	0
Performance				
Orientation*Macro Industry	-.02	.05	-.07	0
GLOBE values scale				
Power Distance	.02	.05	.03	0
Uncertainty Avoidance	-.03	.01	-.19**	.04 <sup>a</sup>
Institutional Collectivism	.04	.02	.20**	.04 <sup>a</sup>
In-Group Collectivism	0	.04	.01	0
Assertiveness	.03	.02	.12	.01
Future Orientation	.04	.03	.10	.01
Performance Orientation	-.05	.04	-.08	.01

Table 8 (continued)

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
Macro Industry for GLOBE values* National Culture Differences				
Power Distance*Macro				
Industry	.08	.05	.19	.01
Uncertainty				
Avoidance*Industry	.01	.03	.08	0
Institutional				
Collectivism*Macro Industry	.02	.03	.09	0
In-Group				
Collectivism*Macro Industry	.01	.08	.02	0
Assertiveness*Macro				
Industry	.04	.04	.17	.01
Future Orientation*Macro				
Industry	-.01	.07	-.03	0
Performance				
Orientation*Macro Industry	.18	.09	.25*	.02 <sup>a</sup>

*Note.* Each culture variable in step 2 was run in a separate analysis.

<sup>a</sup>Finding suggests a small but practically significant effect.

\* $p < .05$ . \*\* $p < .01$ .

Table 9

*Summary of Multiple Regression Analyses for Culture Variables and Culture\*Macro Industry Interactions Predicting Average Annual Market Adjusted Returns One Year after M&A Completion (N =151)*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
GLOBE practices scale				
Power Distance <sup>a</sup>	-.61	.23	-.22**	.05 <sup>b</sup>
Uncertainty Avoidance	-.07	.17	-.03	0
Institutional Collectivism	.24	.25	.08	.01
In-Group Collectivism	-.11	.12	-.07	.01
Assertiveness	.14	.25	.05	0
Future Orientation	-.33	0	-.09	.01
Performance Orientation	-.03	.22	-.01	0
Macro Industry for GLOBE practices*National Culture Differences				
Power Distance*Macro				
Industry <sup>a</sup>	1.08	.46	.35*	.03 <sup>b</sup>
Uncertainty				
Avoidance*Industry	.72	.36	.41*	.03 <sup>b</sup>
Institutional				
Collectivism*Macro Industry	-.07	.53	-.02	0

Table 9 (continued)

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
In-Group				
Collectivism*Macro Industry	-.08	.25	-.04	0
Assertiveness*Macro				
Industry	-.30	.51	-.12	0
Future Orientation*Macro				
Industry	-.44	.60	-.13	0
Performance				
Orientation*Macro Industry	.11	.46	.03	0
GLOBE values scale				
Power Distance	.53	.48	.09	.01
Uncertainty Avoidance	.14	.11	.11	.01
Institutional Collectivism <sup>a</sup>	-.37	.14	-.22**	.05 <sup>b</sup>
In-Group Collectivism	.03	.40	.01	0
Assertiveness	-.11	.16	-.06	0
Future Orientation	-.02	.26	-.01	0
Performance Orientation	.27	.35	.06	0

Table 9 (continued)

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
Macro Industry for GLOBE values*National Culture Differences				
Power Distance*Macro				
Industry	-.07	.97	-.01	0
Uncertainty				
Avoidance*Industry	-.15	.22	-.18	0
Institutional				
Collectivism*Macro Industry	.74	.27	.35**	.05 <sup>b</sup>
In-Group				
Collectivism*Macro Industry	-.15	.82	-.03	0
Assertiveness*Macro				
Industry	.59	.32	.34	.02
Future Orientation*Macro				
Industry	-.09	.56	-.03	0
Performance				
Orientation*Macro Industry	-.83	.72	-.17	.01

*Note.* Each culture variable in step 2 was run in a separate analysis.

<sup>a</sup>Interaction of power distance practices differences and macro industry is significant, so interpretation of main effect changes.

<sup>b</sup>Finding suggests a small but practically significant effect.

\* $p < .05$ . \*\* $p < .01$ .

Table 10

*Summary of Multiple Regression Analyses for Culture Variables and Culture\*Macro Industry Interactions Predicting Average Annual Market Adjusted Returns Two Years after M&A Completion (N =134)*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
GLOBE practices scale				
Power Distance	-.18	.23	-.07	.01
Uncertainty Avoidance	-.13	.16	-.07	.01
Institutional Collectivism	.23	.23	.09	.01
In-Group Collectivism	.17	.11	.14	.02
Assertiveness	.26	.23	.10	.01
Future Orientation	.42	.30	.12	.02
Performance Orientation	.07	.21	.03	0
Macro Industry for GLOBE practices*National Culture Differences				
Power Distance*Macro				
Industry	.17	.47	.06	0
Uncertainty				
Avoidance*Industry	-.05	.33	-.03	0
Institutional				
Collectivism*Macro Industry	-.71	.47	-.26	.02

Table 10 (continued)

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
In-Group				
Collectivism*Macro Industry	-.16	.23	-.08	0
Assertiveness*Macro				
Industry	.07	.47	.03	0
Future Orientation*Macro				
Industry	-.30	.66	-.09	0
Performance				
Orientation*Macro Industry	-.06	.44	-.02	0
GLOBE values scale				
Power Distance	.48	.44	.10	.01
Uncertainty Avoidance	-.06	.10	-.06	0
Institutional Collectivism	.06	.14	.04	0
In-Group Collectivism	.25	.37	.06	0
Assertiveness	-.05	.14	-.03	0
Future Orientation	-.08	.26	-.03	0
Performance Orientation	.05	.32	.02	0

Table 10 (continued)

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
Macro Industry for GLOBE values*National Culture Differences				
Power Distance*Macro				
Industry	-.53	.88	-.11	0
Uncertainty				
Avoidance*Industry	-.07	.21	-.10	0
Institutional				
Collectivism*Macro Industry	-.06	.28	-.03	0
In-Group				
Collectivism*Macro Industry	-.47	.75	-.11	0
Assertiveness*Macro				
Industry	-.09	.29	-.06	0
Future Orientation*Macro				
Industry	-.15	.53	-.04	0
Performance				
Orientation*Macro Industry	-.17	.66	-.04	0

*Note.* Each culture variable in step 2 was run in a separate analysis.

Table 11

*Summary of Multiple Regression Analyses for Culture Variables and Culture\*Macro Industry Interactions Predicting Average Annual Market Adjusted Returns Three Years after M&A Completion (N =120)*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
GLOBE practices scale				
Power Distance	-.10	.22	-.04	0
Uncertainty Avoidance	.07	.15	.04	0
Institutional Collectivism	-.17	.21	-.08	.01
In-Group Collectivism	-.08	.10	-.07	.01
Assertiveness	.20	.21	.09	.01
Future Orientation	-.11	.27	-.04	0
Performance Orientation	-.14	.19	-.07	0
Macro Industry for GLOBE practices* National Culture Differences				
Power Distance*Macro				
Industry	-.07	.45	-.02	0
Uncertainty				
Avoidance*Industry	-.47	.31	-.33	.02
Institutional				
Collectivism*Macro Industry	.08	.45	.04	0

Table 11 (continued)

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
In-Group				
Collectivism*Macro Industry	.03	.22	.02	0
Assertiveness*Macro				
Industry	-.53	.42	-.28	.01
Future Orientation*Macro				
Industry	.26	.62	.09	0
Performance				
Orientation*Macro Industry	-.01	.40	0	0
GLOBE values scale				
Power Distance	-.19	.41	-.04	0
Uncertainty Avoidance	.01	.10	.01	0
Institutional Collectivism	-.03	.13	-.02	0
In-Group Collectivism	-.22	.34	-.06	0
Assertiveness	-.12	.13	-.08	.01
Future Orientation	0	.25	0	0
Performance Orientation	-.20	.29	-.06	0

Table 11 (continued)

Variable	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
Macro Industry for GLOBE values*National Culture Differences				
Power Distance*Macro				
Industry	-.35	.82	-.08	0
Uncertainty				
Avoidance*Industry	-.16	.20	-.25	.01
Institutional				
Collectivism*Macro Industry	-.20	.26	-.10	.01
In-Group				
Collectivism*Macro Industry	-1.03	.68	-.27	.02
Assertiveness*Macro				
Industry	.02	.27	.02	0
Future Orientation*Macro				
Industry	.20	.54	.07	0
Performance				
Orientation*Macro Industry	.45	.61	.13	.01

*Note.* Each culture variable in step 2 was run in a separate analysis.

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Chapter 12

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