An Examination Of Cross Cultural Competence In International Business: The Case Of The Subsidiaries

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ABSTRACT

Cultural competence as approached in this paper enables individuals and organizations to work or respond effectively across cultures in ways that the values, beliefs, traditions and customs are recognized. This study uses Jaccarino & Kendall (2004) empirical model to understand the cross-cultural competence process in an organization. The model consists of four elements: cultural awareness, skill development, developmental planning, and organization strategy. Moreover, this paper explores similarities and differences that exists and the business implications that results from cultural competence variations. Null hypothesis 1 covers the comparison between international subsidiaries by stating that there are no differences in cultural competence between two subsidiaries (United States and Mexico) of an international firm once they operate under unified directives. Null hypothesis 2 covers the comparison within each subsidiary by stating that there are no differences in cultural competence between administrators and direct service providers/clerks in each subsidiary (United States and Mexico) of an international firm.

Keywords: cultural competence, Individual cultural competence, cultural awareness, Cross cultural research.

REVIEW OF LITERATURE

Corporate Growth

*I*nternational firms that seek growth through mergers and acquisitions to foreign companies will face cultural differences. Amoateng (2005) suggested that what encourage international mergers and acquisitions is the organization's strategic objectives of expanding operations to foreign markets to increase returns for investors while assuring market survival and competitive market performance. Organizations are constantly assessing their own competitive and market status, their strengths/weaknesses, and their top management's aspirations and goals. As a result of these actions, organizations define a direction to increase growth, profitability, market penetration in existing businesses, diversification and/or cash investment (Marks & Mirvis, 2001).

Morosini & Ulrich (2005) emphasized that misunderstood national cultural differences are the most important factors behind the high failure rate of global mergers and acquisitions. Morosini & Ulrich (2005) suggested that when intercultural differences are ignored during the evaluation and negotiation stages of a merger, integration fails. In addition, the manner in which an organization handles intercultural challenges is directly correlated with the performance of the merger in the post-integration stage and it can mean the difference between long-term success or failure (Morosini & Ulrich, 2005).

Culture

Culture is basically defined as the product of any human association where individuals meet, communicate, and interact, and in so doing individuals create cultures (Durkhaim, 1956). Kluckhohm (1959) stated that culture consists of patterned ways of thinking, feeling and reacting, and such patterned ways are acquired and transmitted

mainly by symbols that constitute the distinctive achievements of human groups. In addition, the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and, especially, their attached values.

Individuals have a culture, but often individuals are not aware of their behaviors, habits, and customs that are culturally based (Althen, 1988). Hall (1976) suggested that there is not one aspect of human life that is not touched and altered by culture. This includes personality, how people express themselves (including the show of emotions), how people think and move, how people solve problems and plan, how transportation systems function and are organized, as well as how economic and government systems are put together and function. Culturally based behaviors of individuals often contribute to the development of strong similarities between interacting individuals (White, 1998). White (1998) stated that groups who possessed similar characteristics often had increased identity and solidarity, which results in a bonding between individuals and/or groups. These bonds are usually presented as moral rules, values, norms, incentives, and/or various types of relationships.

Individual Cultural Competency and Culture

Individual cultural competency suggests that the dispositions of individuals are influenced by their early social and cultural experiences and, consequently, with respect to communication in groups and organizational contexts (Ayoko & Hartel, 2003). Culture shapes personal goals, and organizational goals, and cultural interactions affect conflict management, behaviors, and communication patterns (Hofstede, 1995; Zorn & Violanti, 1996). In addition, Trompenaars & Hampden-Turner (1998) stressed that many well-intended universal applications of management theory have turned out badly for experienced international organizations because managers failed to confront the abstract nature of preconceived policy guidelines. Furthermore, Peters & Waterman (1982) suggested that western analytic thinking and rationality have led to many international successes in the field of technology. Indeed, technologies do work by the same universal rules everywhere. However, traditional practices become obsolete when applied to interactions between human beings from different cultures (Trompenaars & Hampden-Turner, 1998).

Human beings solve problems and reconcile dilemmas in different ways and such distinctions are perceived as culture (Schein, 1985). Social interaction presupposes common ways of processing information among people who interact with each other (Trompenaars & Hampden-Turner, 1998), and these interactions influence the way individuals do business as well as the way individuals manage across-cultural boundaries. Trompenaars & Hampden-Turner (1998) suggested that the mutual dependence of participants in social interactions is a result of a connected system of meanings; a shared definition of a situation by a group.

Cross-Cultural Competence

Chan (1990) stated that personal experiences influence individual perspectives of events and that by acknowledging multiple perspectives it is possible to increase the level of understanding of the same event. However, seeing others' viewpoints presents many challenges. Achieving cross-cultural competence requires that individuals lower their defenses, tolerate new ideas and beliefs, and practice behaviors that may feel unfamiliar and uncomfortable. Cross-cultural competence requires a sensitive mind, and the willingness to accept alternative perspectives (Chan, 1990). It may require accepting new beliefs whose value is unknown, to accept cultural changes, and to set aside existing beliefs. It may mean changing what individuals think and say, and how individuals behave (Chan, 1990). In addition, Storti (1989) stressed that it is not possible for people to walk in someone else's shoes to understand the view of others because it is still their own feet that people feel.

In the process of developing cross-cultural competence, Chan (1990) suggested that there are three critical elements: self awareness, knowledge of information specific to each culture, and skills that enable the individual to engage in successful interactions. McIntosh (1988) suggested that true cultural competence can be achieved only when those individuals who have been privileged in a society recognize that their advantages are based on systems that disadvantage others, and such individuals actively work against those systems. Regardless of the process that one selects, it is apparent that personal awareness, knowledge of other cultures, and application of that knowledge are common elements.

Cultural competence is something that firms as well as individuals need to be aware of; it is certainly not achieved overnight or in a short time. Cultural competence is a concept that evolved from earlier ideas of cultural sensitivity and awareness (Williams, 2001). Cultural competence enables individuals and organizations to work or respond effectively across cultures in a way that the values, beliefs, traditions and customs are recognized (Williams, 2001). Studies in health care, education, and psychology convey that there are several vital ingredients in developing or accomplishing cultural competence. Self knowledge or awareness is argued to be the most important element; it starts by accepting to learn about other cultures and become truly sensitive to the ideas, beliefs, values and traditions of others (Williams, 2001). Mason (1993) describes the cross-cultural competence continuum as composed of 5 stages: 1) cultural destructiveness, 2) incapacity, 3) blindness, 4) pre-competence, 5) competence.

Cultural destructiveness is the most negative end of the continuum that is indicated by those attitudes, policies, and practices that are ruinous to individuals and their cultures (Mason, 1993). Incapacity occurs when the system or agency does not intentionally seek to be culturally ruinous or destructive but the system may lack the capacity to assist different cultures of individuals and/or communities (Mason, 1993).

Blindness is at the midpoint of the continuum. In this stage the system and its agencies provide services with the express intent of being unbiased. The system and its agencies function as if the culture makes no difference and all the people are the same (Mason, 1993). In addition, pre-competence occurs when individuals and organizations move toward the positive end of the continuum by acknowledging cultural differences and making documented efforts to improve (Mason, 1993). Lastly, competence is the most positive end of the continuum and it is indicated by acceptance and respect of cultural differences, continual expansion of cultural knowledge, continued cultural self-assessment, attention to the dynamics of cultural differences, and adoption of culturally relevant service delivery models to better meet needs (Mason, 1993).

Assessment models

Models to assess cross-cultural competence vary from the stage-based models to competency-based models. The stage-based models focus their attention in cultural sensitivity and the developmental process of the cultural continuum. These models emphasize six point stages and the flexibility of adaptation to the variables of the discipline under study. An empirical assumption of the stage-based model is that individuals and organizations progress in order to develop or improve their effectiveness in working with culturally diverse clients and communities.

The competency-based models provide leadership in the development of cross-cultural competencies as well as strategies and training materials. These models are more organization development oriented. In addition, cultural competencies are conceptualized in terms of knowledge, beliefs/attitudes, and behaviors.

Cross-Cultural Competence Model for this Study

Jaccarino & Kendall (2004) developed an empirical model to assess and understand the cross-cultural competence process in an organization. The model consists of four elements: cultural awareness, skill development, developmental planning, and organization strategy. These elements are seen as key factors to achieve cultural competence:
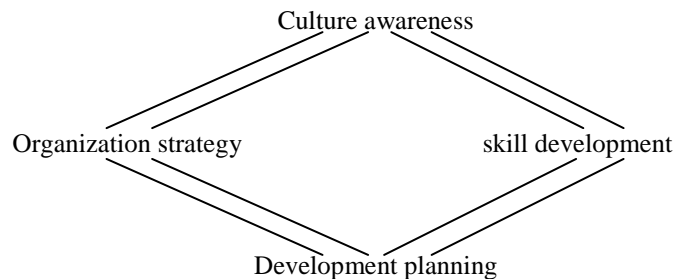
Jaccarino & Kendall (2004) suggested that developing cross-cultural competence is not only the right thing to do for organizations and individuals, but it is a sound business decision that will impact the organization as a whole. "Building cross-cultural competent organizations involve more than hiring diverse top executives or training employees to speak a different language (p.1)." It includes developing an organizational atmosphere of inclusiveness (Jaccarino & Kendall, 2004). In addition, Jaccarino & Kendall's model suggests that a successful cultural competence program to help organizations become culturally competent should include the four elements of the cultural competence model mentioned above, an organization strategy to reflect the desire and commitment of the organization to become culturally competent, awareness building within the organization to create the right atmosphere towards cultural change and acceptance, skills assessment of the workforce to determine the status quo and future needs, and development planning to carry out and implement the strategies that will affect cultural competency.

Sample for the Study

For the purpose of this study, a sample of convenience was used to conduct the cross-cultural assessment. The sample (matched samples – randomly selected) for this study was composed of two groups of employees, administrators and direct service providers/clerks, from each subsidiary. The scope of this study limited the assessment of cultural competence only to these two groups of employees, clerks and administrators, due to their direct interaction with culturally diverse clients and with culturally diverse employees. Other members of the organization such as top directors and other executives in the firms were not considered for this study.
 To comply with general normal distribution requirements it was expected that at least a minimum of 30 participants from each group, administrators and staff, from the two subsidiaries, the United States and Mexico, participated in this study.

Hypotheses and Research Questions

1) There is no difference in cultural competence between two subsidiaries of an international firm, once they operate under unified directives. Therefore,
2) There is no difference in cultural competence between administrators and staff within each subsidiary of an international firm.

To examine these claims the following research questions were addressed:

1) What are the cultural competence differences and/or similarities of the United States and the Mexican subsidiaries?
2) What are the cultural competence differences and/or similarities between administrators and direct service providers/clerks of the subsidiaries in the United States and Mexico?
3) How can cross-cultural competence differences or similarities be explained, if any, between the group of employees (administrators and direct service providers/clerks) in the international subsidiaries?
4) What are some of the business implications that may result from cultural competence similarities and/or differences of the subsidiaries?

Survey for this Study

This study used an adapted version of a survey questionnaire developed by Portland State University's Regional Research Institute for Human Services. The survey addressed cultural competence in terms of four dimensions: attitude (or awareness), practice (or skill development at work), policy (or organization strategy), and structure (or development planning). This survey had been applied in other human services disciplines such as public health and education within one country, the United States. In each instance, the measure was utilized to identify the organization's cultural competence training needs in areas such as: improvement of service delivery to culturally diverse populations, identification of cross-cultural strengths that existed within the organization, system, or network of professionals, and beneficial training topics for service providers.

There were two versions of the cultural competence survey. One version was for use with direct service providers/clerks and the other was for administrative staff (administrators). These two versions were very useful to identify specific needs and to provide strong recommendations for organization interventions. Comparing results from direct service providers with those gathered from administrators helped to clarify perspectives between them regarding staff, agency policy, practice procedures, cultural group characteristics and client demographics, community-based resources and linkages, and community involvement.

Cross-Cultural Adaptation of Survey

Cross-cultural research required that researchers produced and used culturally and linguistically appropriate survey instruments that served other languages and their cultures. Guillemin, Bombardier & Beaton (1993) suggested that cross-cultural adaptation of survey instruments was a prerequisite for the investigation of cross-cultural differences. A survey conducted with an inappropriate instrument could lead to erroneous conclusions that could be difficult to detect during analysis. Furthermore, conclusions drawn could be attributed to differences between the source and the target sample.

Guillemin et al., (1993) suggested that the process of cross-cultural adaptation of surveys should be oriented towards measuring a similar phenomenon in different cultures, and that it was essentially the production of an equivalent instrument adapted to another culture. Therefore, for the purpose of this study, a culturally adapted instrument was an instrument that was conceptually and technically equivalent to the source language, culturally competent and linguistically appropriate for the target sample.

Research Design & Results

The survey instrument assessed cultural competence for administrators and direct service providers (clerks) through seven subscales which were named dependent variables (DVs) in this study.

DV1 = Knowledge of communities
DV2 = Personal involvement
DV3 = Resource and linkages
DV4 = Staffing
DV5 = Service delivery and practice
DV6 = Organizational policy and procedures
DV7 = Reaching out to communities
And the independent variables (IVs) were the cultural competence outcomes for the different groups in the study.
IV1 = MEXCLK (group of direct service providers/clerks in the Mexican subsidiary)
IV2 = USACLK (group of direct service providers/clerks in the United States subsidiary)
IV3 = MEXADM (group of administrators in the Mexican subsidiary)
IV4 = USADM (group of administrators in the United States)

MANOVA (Multivariate analyses of variance) design was used to determine if the means of these four groups were the same. If so, the study could conclude that the populations were the same and that no differences existed in cultural competence between groups (NCSS, 2005). The number crunching statistical software (NCSS) was used to conduct MANOVA.

Table 1
Respondent's Roles per Subsidiary

Job Performed	Subsidiary's location		Total
	United States	Mexico	
Administrators	35	35	70
Direct service providers/clerks	35	35	70
Total respondents	70	70	140

Table 2
Demographic Information of Survey Respondents

Demographic category	United States Total = 70 respondents	Mexico Total = 70 respondents
Subsidiary's location		
Gender	60 % are males 40 % are females	60 % are males 30 % are females 10 % no response
Age	80 % are between 36 to 45 yrs. 20 % other categories	70 % are between 36 to 45 yrs. 30 % other categories
Education	100 % have 10 to 19 yrs. of school	70 % have 10 to 19 yrs of school 30 % have 0 to 9 yrs of school
Professional experience	80 % posses 6 to 10 years 10 % other 10 % no response	90 % posses 6 to 10 years 10 % other
Length of employment in the firm	80 % over 7 years 20 % other	90 % over 7 years 10 % other

FINDINGS

Research Question One asked: What are the cultural competence differences and/or similarities of the United States and the Mexican subsidiaries?

The test statistics from the MANOVA test showed that statistically significant mean differences existed between the groups of employees in the United States and Mexican subsidiaries. Consequently, the Null Hypothesis 1 was rejected. This fact suggested that cross-cultural competence differences existed between the United States and Mexican subsidiaries. Table 3 summarizes the test statistics for MANOVA test.

Table 3
Test Statistics from the MANOVA

Test statistics	*F*-ratio	Probability level (*p*)
Wilks' Lambda	7.84	0.0001
Hotelling-Lawley trace	10.24	0.0012
Pillai's trace	5.85	0.0003
Roy's largest root	31.22	0.0000

Table 4
Summary of ANOVA Results for Similarities and Differences Found in Cross-Cultural
Competence between the United States and Mexican Subsidiary

	Mexican clerks		United States clerks		Mexican administrators		United States administrators		
Dependent	IV1		IV2		IV3		IV4		
Variables**	*M*	*SE*	*M*	*SE*	*M*	*SE*	*M*	*ES*	*p*
DV1	6.45	0.65	6.60	0.65	8.78	0.95	8.82	0.90	0.031*
DV2	4.11	0.65	4.11	0.65	8.75	0.95	8.76	0.90	0.000*
DV3	8.60	0.65	8.75	0.65	8.75	0.95	9.13	0.90	0.973
DV4	5.35	0.65	5.66	0.65	8.75	0.95	8.79	0.90	0.001*
DV5	7.72	0.65	7.75	0.65	0.00	0.00	0.00	0.00	0.000*
DV6	6.69	0.65	6.63	0.65	8.75	0.95	9.00	0.90	0.090
DV7	4.11	0.65	3.90	0.65	9.02	0.95	9.24	0.90	0.000*

Group outcomes***

Note: *Statistically significant at the 0.05 level.
** Dependent variables are the survey categories: DV1=Knowledge of communities; DV2=Personal involvement; DV3=Resources and linkages; DV4=Staffing; DV5=Service delivery and practice; DV6=Organization policy and procedures; DV7=Reaching out to communities.
*** Group outcomes are the survey respondents: IV1=Mexican direct service providers/clerks; IV2=Unites States direct service providers/clerks; IV3=Mexican administrators; IV4=United States administrators.

The mean differences found between the subsidiaries in the United States and Mexico are illustrated in Graph 1. Table 4 and Graph 1 also showed that when respondents were grouped by country (IVs), means differences were significant. Therefore, the Null Hypothesis which stated that there is no difference in cultural competence between two subsidiaries of an international firm, once they operate under unified directives, was rejected (*p<0.05)* for these areas of assessment: knowledge of communities (DV1); personal involvement (DV2); staffing (DV4); service delivery and practice (DV5); and, reaching out to communities (DV7).

In addition, resources and linkages (DV3), and organizational policy and procedures (DV6) showed that no significant mean differences existed between the employees (administrators and direct service providers/clerks) of the subsidiaries in the United States and Mexico.

When respondents were grouped according to the job they performed, Table 4 and Graph 1 also showed that mean differences of the group of administrators of both subsidiaries (United States and Mexico), and the mean differences of the group of the direct service providers/clerks of both subsidiaries (United States and Mexico) were not significant.
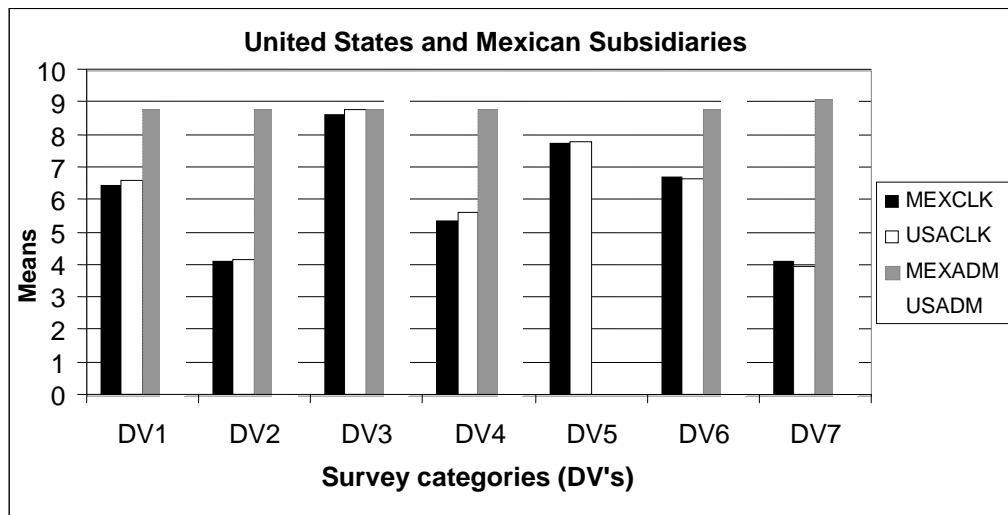
Graph 1
Summary of ANOVA Results for Similarities and Differences Found in Cross-Cultural
Competence between the United States and Mexican Subsidiary

Note: Survey categories (Dependent variables) are listed on the horizontal axis. Means for the group of respondents are listed in the vertical axis. The scale on the vertical axis is 1 to 10 given that the highest mean calculated approximates only to 9.

Research Question Two asked: What are the cultural competence differences and/or similarities between administrators and direct service providers/clerks of the subsidiaries in the United States (IV2, IV4) and Mexico (IV1, IV3)?

There were no significant mean differences in six of the seven categories under assessment between the administrators and direct service providers/clerks in the Mexican subsidiary (Table 4). The service delivery category, which exclusively addressed direct service providers'/ clerks' responses, appeared in the analysis as statistically significant because administrators were not required to respond to this survey item. Therefore, the Null Hypothesis 2 was accepted by concluding that there were no cultural competence differences between the administrators and direct service providers/clerks in the Mexican subsidiary in terms of knowledge of communities, personal involvement, resources and linkages, staffing, organizational policy and procedures, and, reaching out to communities.

A separate evaluation of the United States subsidiary between the administrators and direct service providers/clerks showed that there were no significant mean differences in six of the seven categories under assessment (Table 4). The service delivery category, which exclusively addressed direct service providers'/ clerks' responses also appeared in the analysis as statistically significant because administrators were not required to respond to this survey item. Therefore, the Null Hypothesis 2 was accepted by concluding that there were no cultural competence differences between the administrators and

direct service providers/clerks in the United States subsidiary in terms of knowledge of communities, personal involvement, resources and linkages, staffing, organizational policy and procedures, and reaching out to communities.

Graphs 2 and 3 showed that no significant mean differences existed between the employees (administrators and direct service providers/clerks) within the subsidiaries in the United States and Mexico. Therefore, the Null Hypothesis Two was accepted for knowledge of communities (DV1), personal involvement (DV2), resources and linkages (DV3), staffing (DV4), reaching out to communities (DV7), and organizational policy and procedures (DV6). In addition, service delivery and practice category (DV5) showed that no mean comparisons were made because this survey category was exclusive for direct service providers/clerks and administrators were not required to answer.
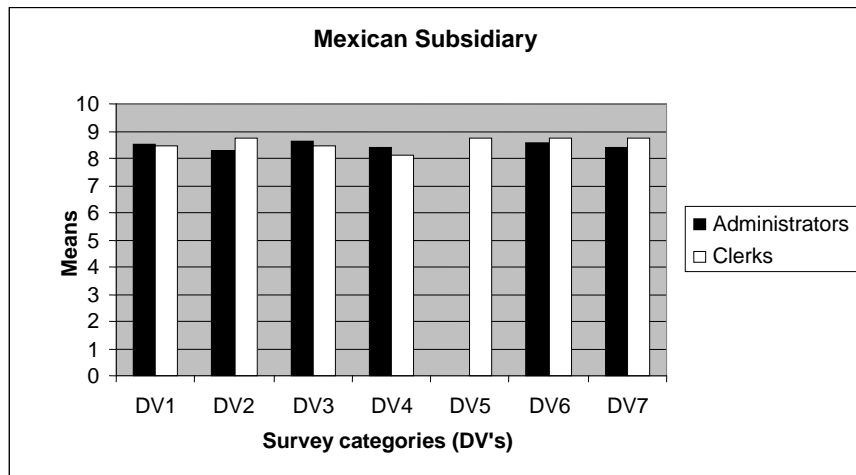
Graph 2
Summary of ANOVA Results for Similarities and Differences Found in Cross-Cultural
Competence between Administrators and Direct Service Providers/Clerks in the Mexican Subsidiary

Note: Survey categories (Dependent variables) are listed on the horizontal axis. Means for the group of respondents are listed in the vertical axis. The scale on the vertical axis is 1 to 10 given that the highest mean calculated approximates only to 9.
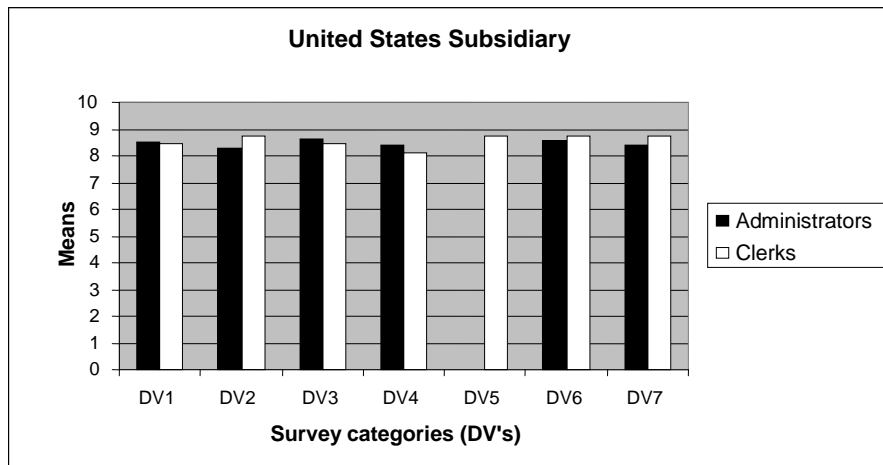
Graph 3
Summary of ANOVA Results for Similarities and Differences Found in Cross-Cultural
Competence between Administrators and Direct Service Provides/Clerks in the United States Subsidiary.

Note: Survey categories (Dependent variables) are listed on the horizontal axis. Means for the group of respondents are listed in the vertical axis. The scale on the vertical axis is 1 to 10 given that the highest mean calculated approximates only to 9.

Research Question Three asked: How can cross-cultural competence differences and/or similarities be explained, if any, between group of employees (administrators and direct service providers/clerks) in the international subsidiaries?

Similarities and differences that resulted from cross-cultural competence variations between and/or within subsidiaries in the United States and Mexico (IV1, IV2, IV3, IV4) could be explained in terms of groups of employees selected for analysis and demographic information collected from the respondents to the survey. Regarding groups of employees selected for analysis (IVs), the United States and Mexican subsidiaries showed no significant mean differences between administrators and direct service providers/clerks of either subsidiary (Table 4). Separate evaluations of the subsidiaries through MANOVA tests between the administrators and direct service providers/clerks, resulted in no significant mean differences at $\alpha=0.05$, in six of the seven categories under assessment (Table 4).

When the two subsidiaries were simultaneously analyzed, differences among administrators and direct service providers/clerks (IVs) were evident. Table 4 showed that when participants were all groups (IVs) were considered for analysis; several mean differences were noted in the results. It is important to note that data grouping (i.e. Country and Job performed) in the MANOVA tests contributed to the observation of mean differences in this study. Thus, factor selection clearly affected similarities and differences observed in the results of this study.

From the demographic information, strong similarities in self-perception of cultural competence in the United States and Mexican subsidiaries could be the consequence of common demographic factors (Table 2) between the employees of each subsidiary. The study found that sample demographics such as gender, age, education, professional experience, and length of employment were similar. A high percentage of the respondents to the survey possessed similar backgrounds (Table 2). This fact suggested that strong cohesiveness existed between the employees of each subsidiary. In addition, sample composition (Table 1) might also have limited the inclusion of other background respondents (limitation of sample and scope of the study).

From Table 2, demographic information showed that the majority of the respondents in both subsidiaries (United States and Mexico) were males between the ages of 35 to 45 years old, Who had 10 to 19 years of school education, counted with 6 to 10 years of professional experience in their respective work areas, and were employed for over 7 years by the firm, which included the time before the merger and acquisition in 2002. Finally, demographic information suggested that strong cohesiveness existed between administrators and direct service providers/clerks in both subsidiaries (United States and Mexico). This was due to personal history and time at the organization which may have explained the uniformity of viewpoints in cross-cultural competence.

Research Question Four asked: What are some of the business implications that may result from cultural competence similarities and/or differences of the subsidiaries?

Cultural competence, as previously defined in this paper, referred to the ability of service providers to function effectively with culturally diverse clients and communities (Barrera & Kramer, 1997) by thinking, feeling and acting in ways that acknowledged cultural diversity and socio-cultural conflicts where a business operated (Lynch & Hanson, 1998).

After the cross-cultural competence assessment was conducted, the results from the survey show that there were significant similarities within each subsidiary, cross-culturally speaking, but significant differences between subsidiaries (Table 5). Table 5 showed that the United States and Mexican subsidiaries were aware of their own cultural setting but culturally unaware of each other's cultural settings. This fact showed that despite the organization-wide effort to integrate all subsidiaries under the same directive, both subsidiaries (United States and Mexico) were still behaving as individual units. As a result of these differences in cultural awareness, the subsidiaries could experience unsuccessful business interactions when working together, lack of cooperation, and reduced performance as group (Chan, 1990).

Table 5 shows that the United States and Mexican subsidiaries had uniformly adopted the firm's policies and procedures, and that the firm's resources and business linkages were consistently planned and developed

(Jaccarino & Kendall, 2004) across subsidiaries. This fact showed that the organization's mission statement of becoming a true global firm had found acceptance among the employees of both subsidiaries (United States and Mexico). In business terms, efficient transmission and adoption of organizational policies and procedures is translated into competitive advantage (Zander & Kogut, 1995; Gupta & Govindajaran, 2000). In addition, the effective deployment of products, technology, and knowledge in multiple locations represents factors of success for international firms (Zaheer, 1995).

Table 5 shows that the survey outcomes for staffing and reaching out to communities were similar for both subsidiaries (United States and Mexico), and consistent with the culture awareness outcomes (knowledge of communities and personal involvement). Moreover, when examining service delivery between both subsidiaries (United States and Mexico), Table 5 confirmed that significant differences existed between subsidiaries. This fact showed that cultural information was not considered in cross-cultural interactions; therefore, the set of behaviors and attitudes to function effectively with culturally diverse clients and communities were not present (Rorie, Paine & Barger, 1996).

When lack of cultural knowledge existed between subsidiaries, its effect was also felt in staffing practices. The lack of cultural knowledge precluded the efficient human resource forecasting and planning activities of the firm (Mason, 1993). Consequently, service delivery was also affected and communities were not efficiently reached by the service provider (Mason, 1993). In addition, the manner in which an organization handled intercultural challenges affected the performance of the merger/acquisition in the post-integration stage (Morosini & Ulrich, 2005). Finally, the results of the study are summarized in Table 5.

Table 5
Summary of Statistical Decisions to Accept and/or Reject the Null Hypotheses Based on p level from Table 4.

Survey category (DVs)	United States and Mexican subsidiaries (IV1, IV2, IV3, IV4)	United States Subsidiary only (IV2, IV4)	Mexican Subsidiary only (IV1, IV3)
(DV1) Knowledge of communities	Differences found	Similarities found	Similarities found
(DV2)Personal involvement	Differences found	Similarities found	Similarities found
(DV3)Resources and linkages	Similarities found	Similarities found	Similarities found
(DV4) Staffing	Differences found	Similarities found	Similarities found
(DV5) Service delivery and practice	Differences found	n/a	n/a
(DV6) Organizational policy and procedures	Similarities found	Similarities found	Similarities found
(DV7) Reaching out to communities	Differences found	Similarities found	Similarities found

Note: Accepting the Null Hypothesis that no cultural differences between groups existed means that similarities were found in the groups under assessment. Rejecting the Null Hypothesis that no cultural differences between groups existed means that differences were found in the groups under assessment

CONCLUSION

Cultural competence, as approached in this study, enabled individuals and organizations to work or respond effectively across cultures in ways that the values, beliefs, traditions and customs were recognized (Williams, 2001). Conducting an assessment of cultural competency could assist organizations to determine training needs for current employees as well as to aid human resources planning (Williams, 2001).

When the two subsidiaries (United States and Mexico) were individually analyzed, the study found that no significant differences existed in cross-cultural competence in each subsidiary (United States and Mexico). This fact suggested that each subsidiary was aware of its own culture, developed skills for problem solving, adopted organization strategies, and planned and developed its organization resources and business linkages (Jaccarino & Kendall, 2004). Each subsidiary had become culturally competent. Similar to what Trompenaars & Hampden-Turner (1998) found, groups of employees (administrators and direct service providers/clerks) in each of the two subsidiaries (United States and Mexican subsidiaries) organized themselves to increase the effectiveness of their problem solving processes and the cross-cultural interactions in their own cultural setting created a synergy that resulted in a higher level of performance than any single employee could have achieved on its own.

When the two subsidiaries (United States and Mexico) were compared, the study also found that significant differences existed in cross-cultural competence. The results from the survey suggested that the two subsidiaries were not aware of each other's culture and problem solving skills were not developed. Similar to what Mason (1995) found, when culture was ignored barriers to effective business performance emerged. Conversely, organization strategies were adopted and organization resources and business linkages were planned and developed. Cultural competence deficiencies were found between the two subsidiaries (United States and Mexico).

The results from the four groups of employees surveyed (United States administrators, United States direct service providers/clerks, Mexican administrators, and Mexican direct service providers/clerks) confirmed that cultural competence differences existed in terms of knowledge of communities, personal involvement, staffing, service delivery and practice, and reaching out to communities.

This study also found that no significant differences existed between subsidiaries in terms of resources and linkages, and organizational policy and procedures. This fact suggested that development planning of the organization was uniform for both subsidiaries (Jaccarino & Kendall, 2004). Also, the two subsidiaries had uniformly adopted the firm's organizational policies and procedures. This result suggested that organization strategy was accepted by all members of the subsidiaries and that information about organization strategy was effectively transmitted to the subsidiaries regardless of cultural setting. In addition, similar to what Zander & Kogut (1995) found, the effective transfer of knowledge and organizational practices across the subsidiaries were identified as contributing factors to competitive advantage of the firm.

Similarities and differences that resulted from cross-cultural competence variations between and/or within subsidiaries in the United States and Mexico were explained in this study in terms of groups selected for analysis and demographic information collected from the respondents to the survey. When the United States and Mexican subsidiaries were individually analyzed, the outcomes (Table 4) showed that no significant mean differences existed in cultural competence between administrators and direct service providers/clerks of each subsidiary. However, when the data of the two subsidiaries was compared, differences between groups were evident (Table 4). When subsidiaries were analyzed according to jobs performed, mean differences were not significant. Selection of Job and Country, as data categories (factors) for analysis in the MANOVA tests, contributed to the observation of mean differences in this study.

Strong similarities in self-perception of cultural competence in the United States and Mexican subsidiaries could be the consequence of common demographic factors (Table 2) between the employees of each subsidiary. Demographics, such as gender, age, education, professional experience, and length of employment, were similar for all responding employees in the Mexican subsidiary and, for all responding employees in the United States subsidiary. A high percentage of the respondents to the survey possessed similar backgrounds (Table 2). Demographic information suggested that strong cohesiveness existed between administrators and direct service providers of each subsidiary (United States and Mexico) due to personal history and time at the organization. This could explain the uniformity of viewpoints in cross-cultural competence.

RECOMMENDATIONS

The findings of this study could not be generalized to other subsidiaries of this firm or any other subsidiaries. An assessment of cross-cultural competence was an initial step to understanding where the cross-cultural competence levels of the two subsidiaries are. Therefore, it is recommended the administration of more comprehensive assessments that include executive levels in future surveys before attempting to use the results of this study in designing improvement initiatives. In addition, future research in this field should include larger sample sizes, more subsidiaries and all levels of employees in the organization.

Any attempts to conduct improvement initiatives should carefully consider the results from the surveys applied to the employees of the subsidiaries. In the case of the United States and Mexican subsidiaries, it is recommended that any OD (organization development) intervention designed to improve cultural competency should address differences found in knowledge of communities, personal involvement, staffing, service delivery and practice, and reaching out to communities.

Lastly, it is recommended that not only recently acquired subsidiaries be used as samples for future studies, but due to the rapid changes in market demographics, all subsidiaries of international firms should be considered in cross-cultural studies.

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REFERENCES

1. Adler, N.J. (2002). *International dimensions of organizational behaviour* (4th ed.,Vol. 1). Cincinnati, OH, USA: South-Western college publishing.
2. Althen, G. (1988). *American ways: A guide for foreigners in the United States*. Yarmouth, ME: Intercultural Press.
3. Amoateng, K.A. (Winter, 2005). Cross-border mergers and acquisitions between Canada and the U.S. since 1990s. *Journal of global business*, 16(30), 57-65.
4. Anderson, P.P., & Fenichel, E.S. (1989). Serving culturally diverse families of infants and toddlers with disabilities (1st ed.). Washington, DC: National center for clinical infant programs.
5. Ayoko, O.B., & Hartel, C.E.J. . (2003). The role of space as both a conflict trigger and a conflict control mechanism in culturally heterogeneous workgroups. *Applied psychology: An international review*, 52, 383-412.
6. Barcikowski, R., & Stevens, J.P. (1975). A montecarlo study of the stability of canonical correlations, canonical weights, and canonical variate-variable correlations. *Multivariate behavioral research*, 10, 353-364.
7. Barkema, H., & Vermeulen, F. (1997). What differences in the cultural backgrounds of partners are detrimental for international joint ventures?. *Journal of international business studies*, 28(4), 845-864.
8. Barrera, I., & Kramer, L. (1997). *From Monologues to Skill Dialogues: Teaching the process of crafting culturally competent early childhood environments*. Baltimore: Paul H. Brookes.
9. Berry, J.W. (Ed.). (1994). *Social and cultural change*. Boston, MA: Allyn and Bacon. (Original work published 1980)
10. Bessler, W., & Murtagh, J.P. . (2000). The stock market reaction to cross border acquisition of financial services firms: An analysis of Canadian banks. *Journal of international financial markets, institutions and money*, 12, 419-440.
11. Brislin, R.W. (Ed.). (1986). *The wording and translation of research instruments* (1st ed.). Beverly Hills, CA: Sage Publications.
12. Buckley, P.J., & Casson, M.C. (1976). *The future of the multinational enterprise*. London: Macmillan.
13. Carter, R.T., & Qureshi, A. . (Eds.). (1995). *A typology of philosophical assumptions in multicultural counseling and training*. Thousand oaks, CA: Sage Publications.
14. Casse, P. (Ed.). (1981). *Training for the cross-cultural Mind*. USA (2nd ed., Vol. 1).
15. Chan, S. (1990). Early Intervention with Culturally Diverse Families of Infants and Todlers. *Infants and Young Children*, 3(2), 78-87.
16. Chavez, J.A. (1997). Preparing special education teachers and leaders for our diverse schools. Division for culturally and linguistically diverse exceptional learners (DDEL) news, 7(2), 6.
17. Connolly, P.M., & Connolly, K.G. . (2005). *Employee Opinion Questionaires*. USA: Pfeiffer.
18. Cross, T.L., Bazron, B.J., Dennis, K.W., & Isaacs, M.R. (1989). *Towards a Culturally Competent Systems of Care* (Vol. 1). Washington, DC: Georgetown University.

19.　Dunning, J.H. (Ed.). (1977). *Trade, location of economic activity and the MNE: A search for an eclectic approach*. New york, USA: Holmes and Meier.
20.　Durkheim, E. (1956). Education and Sociology (1st ed.). New York: *The Free Press*.
21.　Edwards, J.E., Thomas, M.D., Rosenfeld, P., & Booth-Kewley, S. (1997). *How to Conduct Organizational Surveys*. USA: SAGE Publications.
22.　Elliott, C., Adams, R.J., & Sockalingam, S. (1999). Multicultural toolkit: Toolkit for cross-cultural collaboration. Awesome library – U.S. office of Minority Affairs, USA.
23.　Erter, D., Weiss, J., & Visioni, L.J. . (2001). *Managing alliance relationship: Ten key corporate capabilities* (1st ed., Vol. 1). Boston, MA, USA: Vantage Partners.
24.　Fedor, K., & Werther, W. . (Fall, 1996). The fourth dimension: Creating culturally responsive international alliances. *Organizational Dynamics*, 24, 39-53.
25.　Forster, N. . (2000). Expatriates and the impact of cross-cultural training. *Human Resource Management Journal*, 10(3), 63-78.
26.　Gardenswartz, L., & Rowe, A. (2001). Cross-cultural awareness. *HR Magazine*, 46(3), 139-142.
27.　Gordon, G.G., & Salganik, J. . (2001). Making alliances work: Improving return on relationship. *Global Finance*, 15(10), 73-74.
28.　Graf, A. (September, 2004). Screening and training inter-cultural competencies. *International Journal of Human Resources Management*, 15(6), 1124-1143.
29.　Griffin, R.W., & Pustay, M.W. . (2005). *International Business* (4th ed., Vol. 1). New Jersey, USA: Prentice Hall. (Original work published 1996)
30.　Guillemin, F., Bombardier, C., & Beaton, D. (1993). Cross-cultural adaptation of health-related quality of life measures: Literature review and proposed guidelines. *Journal of Clinical Epidemiology*, 46, 1417-1432.
31.　Gupta, A.K., & Govindarajan, V. (2000). Knowledge flows within multinational corporations. *Strategic Management Journal*, 21(4), 473-496.
32.　Hall, E.T. (1976). How cultures collide. *Psychology Today*, 10(2), 66-97.
33.　Hall, K. (May, 1995). Worldwide vision in the workplace. *People Management*, 10(1), 20-22.
34.　Harry, B. (1992). Developing Cultural Self-awareness: The first step in values clarification for early interventionists. *Topics in Early Childhood Special Education*, 12(3), 333-350.
35.　Herskovits, M.J. (1955). The science of man in the making. *American Anthropologist*, 57, 138-141.
36.　Hofstede, G. (1980). *Cultures' Consequences: International differences in work-related values* (Vol. 1). Beverly Hills, CA, USA: Sage Publications.
37.　Hofstede, G. (1991). *Cultures and organizations: Software of the mind- Intercultural cooperation and its importance for survival* (1st ed.). Berkshire, UK: McGraw Hill.
38.　Hofstede, G. (1995). The business of international business is culture. *International Business Review*, 3(1), 1-14.
39.　Hofstede, G. (Ed.). (1987). *Culture's Consequences* (3rd ed., Vol. 5). USA: Sage Publications. (Original work published 1984)
40.　Hui, C.H., & Triandis, H.C. (1985). Measurement in cross-cultural psychology. *Journal of Cross-cultural Psychology*, 16, 131-152.
41.　Hymer, S.H. (1976). *The international operations of national firms* (1st ed.). Cambridge, MA, USA: MIT Press.
42.　Isaacs, M.R., & Benjamin, M.P. (1991). *Towards a Culturally Competent System of Care* (Vol. II). Washington, DC: Georgetown University.
43.　Jaccarino, C., & Kendall, P. (September 06, 2004). Cross-cultural competence: A necessity. Bridges, 1, 1.
44.　Kluckhohn, C. (1959). *Mirror for man*. New York: McGraw Hill. (Original work published 1951)
45.　Kogut, B., & Zander, U. . (1993). Knowledge of the firm and the evolutionary theory of the multinational enterprise. *Journal of International Business Studies*, 24, 625-646.
46.　Krajewsky-Jaime, E.R., Brown, K.S., Ziefert, M., & Kaufman, E. (1996). Utilizing International Clinical Practice to Build Inter-cultural Sensitivity in Social Work Students. *Journal of Multicultural Social Work*, 4(2), 15-29.
47.　Kroeber, A.L., & Kluckhohn, C. (1952). *Culture: A critical review of concepts and definitions* (1 ed., Vol. 47). Cambridge, MA: Peabody Museum.

48.   Lynch, E.W., & Hanson, M.J. (1993). Changing Demographics: Implications for training in early interventions. *Infants and Young Children*, 6(1), 50-55.

49.   Lynch, E.W., & Hanson, M.J. (1998). *Developing Cross-cultural Competence: A guide for working with young children and their families* (2nd ed.). Baltimore: Paul H. Brookes.

50.   Marin, G., & Marin, B.V. . (1991). *Research with hispanic populations*. Newbury park, CA, USA: Sage Publications.

51.   Marks, M.L., & Mirvis, P.H. (May, 2001). Making mergers and acquisitions work: Strategic and psychological preparation. *The Academy of Management Executive*, 15(2), 80-92.

52.   Mason, J.L. (1993). *Cultural competence self assessment questionnaire*. Portland, OR, USA: Portland State University.

53.   Mason, J.L. (1995). *Cultural competence self-assessment questionnaire: A manual for users*. Portland, OR: Portland State University.

54.   McFadden, J. (1996). A trans-cultural perspective: Reaction to C.H. Patterson's multicultural counseling from diversity to universality. *Journal of Counseling and Development*, 74, 232-235.

55.   McIntosh, P. (1988). White privilege and male privilege: A personal account of coming to see correspondences through work and women's studies. Wellesley College Center for Research on Women, 5-9.

56.   McShane, S.L., & VonGlinow, M.A. (2005). *Organizational Behavior* (3rd ed.). New York, USA: McGraw Hill. (Original work published 2000)

57.   Mendoza, J.L., Markos, V.H., & Gonter, R. (1978). A new perspective on sequential testing procedures in canonical analysis: A montecarlo evaluation. *Multivariate Behavioral Research*, 13(3), 371-382.

58.   Morosini, P., & Ulrich, S. (2005). *Managing complex mergers* (1st ed., Vol. 1). USA: Prentice Hall.

59.   NCSS (2005) Number Crunching Statistical Software.

60.   Nunnally, J. C. (1978). *Psycometric Theory* (2nd ed.,). New york, USA: McGraw-Hill.

61.   Pausenberger, E., & Nocker, R. (2000). Kooperative formen derauslandsmarktbearbeitung. Zeistchrift fur Betriebswirtschaftliche Forschung, 52(6), 392-412.

62.   Peters, T., & Waterman, R. (1982). *In search of excellence* (1st ed.). New York, USA: Harper & Row.

63.   Phillips, C.B. (1993). Early childhood reform: Innovative approaches to cultural and racial diversity among families (1st ed.). Virginia, USA: National Association of State Boards of Education.

64.   Portland State University Regional Research Institute for Human Services (1995).

65.   Rorie, J.L., Paine, L.L., & Barger, M.K. (1996). Primary care for women-Cultural competence in primary care services. *Journal of Nurse-Midwifery*, 41(2), 92-100.

66.   Rowntree, L., Lewis, M., Price, M., & Wyckoff, W. (2003). *Diversity Amid Globalization* (2nd ed., Vol. 1). Upper saddle river, NJ, USA: Prentice Hall.

67.   Schein, E. (1985). *Organizational culture and leadership* (1st ed.). San Francisco, CA: Jossey-Bass.

68.   Shweder, R.A., & Levine, R.A. (1984). *Culture theory: Essays on mind, self and emotion* (1st ed.). New york: Cambridge University Press.

69.   Skinner, B.F. (1953). *Science and human behavior* (1st ed.). New York: Macmillan.

70.   Storti, C. . (1989). *The art of crossing cultures* (1st ed.). Yarmouth, ME: Intercultural Press.

71.   Trompenaars, F., & Hampden-Turner, C.M. (1998). *Building Cross-cultural Competence* (1st ed., Vol. 1). USA: Yale University Press.

72.   Vogt, W.P. (1993). *Dictionary of statistics and methodology* (1st ed., Vol. 1). CA, USA: Newbury park: Sage Publications. Washington, DC: SETAR. (Original work published 1979)

73.   White, D.R. (1998). Concepts of cohesion, old and new: which are valid, which are not? Department of Anthropology: University of California, Irvine.

74.   Williams, B. (December, 2001). Accomplishing cross-cultural competence in youth development programs. *Journal of Extension*, 39(6), 1-6.

75.   Zaheer, S. (1995). Overcoming the liability of foreignness. *Academy of Management Journal*, 38(2), 341-363.

76.   Zander, U., & Kogut, B. (1995). Knowledge and the speed of the transfer and imitation or organizational capabilities: An empirical test. *Organization Science*, 6(1), 76-92.

77.   Zorn, T.E. & Violanti, M.T. (1996). Communication abilities and individual achievement in organizations. *Management Communication Quarterly*, 10(1), 139-167.