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María Teresa de la Garza Carranza, Carolyn P. Egri*

Managerial Cultural Intelligence and Small Business in Canada**

This study of 122 executives in Canadian small businesses examined the extent to which managerial cultural intelligence was a contributing factor to the organizational effectiveness of small businesses. We found that the cultural intelligence of small business managers engaged in international business was higher than that of small business managers in domestic-only firms. After controlling for firm entrepreneurial orientation, we found that managerial cultural intelligence was positively related to corporate reputation and employee commitment, but not to the financial performance of small businesses. Further, these relationships were similar for small businesses that conducted international business and those that were domestic-only. For internationalized small businesses, managerial cultural intelligence was not influenced by the international scope of business activities. One implication is that cultural intelligence is a managerial competency that is not restricted to international business contexts. Directions for future research on cultural intelligence are identified.

Key words: small business, cultural intelligence, entrepreneurial orientation

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Managerial cultural intelligence and small business in Canada

The increasing internationalization of small business is a phenomenon that has received interest from scholars and practitioners alike (Knight/Kim 2009; Leonidou et al. 2007). Entry of small businesses into international trade has been facilitated by advances in communication technologies and transportation as well as the lowering of international trade barriers (e.g., Rialp et al. 2005). Even so, the international presence and performance of small and medium-sized enterprises (SMEs) has been proportionately lower than that of large enterprises (Leonidou et al. 2007; Orser et al. 2008; Rialp et al. 2005) in most industrialized countries including Canada (Industry Canada 2007; OECD 2009; Statistics Canada 2008).

The small business and entrepreneurship literature has identified a number of barriers to the internationalization of small business. Compared to large organizations, SMEs have greater resource constraints to conduct business outside of domestic markets (Etemad 2004; Knight/Kim 2009; Leonidou 2004; Westhead et al. 2001). In respect to tangible resources, SMEs have relatively less access to financial capital, market information, and international customer contacts (Leonidou 2004; Hitt et al. 1996). SME success in foreign markets is also largely dependent on the intangible internal competencies and capabilities needed to conduct business internationally (e.g., Knight/Kim 2009; Hitt et al. 1996). Consistent with upper echelons theory (Hambrick/Mason 1984) that proposes that top executives have significant direct influence on organizational strategies and functioning, previous research has identified that the strategic orientation and human capital attributes (personal characteristics, knowledge, and skills) of small business owners and executives are important determinants of small business internationalization (e.g., Leonidou 2004; Miesenböck 1988; Westhead et al. 2001; Wiklund et al. 2009).

In respect to strategic orientation, small businesses with more growth-oriented managers are more likely to make strategic decisions to enter and expand internationally (e.g., Knight/Kim 2009; Wiklund et al. 2009). Similarly, the entrepreneurial orientation of small businesses’ top management is predictive of a firm’s propensity to internationalize as well as the number of countries exporting to or operating in (De Clercq et al. 2005; Ripollés-Meliá et al. 2007). In respect to human capital resources, internationalized SMEs are more likely to have top managers with previous international experience (personal, educational, and work-related), and foreign language proficiency (e.g., Etemad 2004; Fernandez-Ortiz/Lombardo 2009; Leonidou et al. 2007; Orser et al. 2008). Further, managerial international experience and knowledge have been found to be positively related to the financial performance of SMEs in foreign markets (Etemad 2004; Fernandez-Ortiz/Lombardo 2009; Knight/Kim 2009; Rialp et al. 2005).

While this research suggests that managerial intellectual and experiential knowledge are necessary ingredients for international business success, these personal attributes may not be sufficient in and of themselves. For instance, Thomas (1998) noted that the relationship between foreign language fluency and effective cross-cultural interactions is not linear, and that multilingualism is not a prerequisite for developing effective cross-cultural relationships. Similarly, having lived in another coun-
try is not a guarantee of effectiveness in intercultural situations as demonstrated by the relatively high rate of failure of U.S. expatriates in overseas assignments (Black et al. 1999; Hechanova et al. 2003). What has been increasingly recognized is that international knowledge and experience are only two facets of the cultural intelligence (Earley/Ang 2003; Thomas/Inkson 2004) or cross-cultural competence (Johnson et al. 2006) that corporate managers needed for successful working relationships in international business.

Although the theory of cross-cultural skills and effectiveness is well developed (Thomas/Fitzsimmons 2007), empirical research on cultural intelligence has primarily focused on expatriate adjustment to overseas assignments, decision-making and task performance of foreign professionals, and multicultural team effectiveness (e.g., Ang et al. 2007; Earley/Gibson 2002; Thomas 2006). In contrast, there has not been research on cultural intelligence as it relates to small business managers who conduct international business. The need for small business owners/managers to personally develop their intercultural relationship effectiveness may be greater than for managers in larger firms that have more resources to hire experts to conduct commercial relations abroad or to employ cross-cultural specialists for these functions (Culpan 1989; Sapinenza et al. 2005). Hence, our first research question is: Is managerial cultural intelligence a critical success factor for small business internationalization?

The need for cultural intelligence is not limited to interactions across national borders but is also helpful for developing effective relationships within diverse work-places (e.g., Earley/Ang 2003; Thomas/Inkson 2004). Specifically, cultural intelligence is proposed to be an important personal attribute for working with people from different cultural, ethnic, demographic, and functional backgrounds whether in one’s home country or elsewhere (Johnson et al. 2006). Earley (2002) also suggested that there may be more opportunities to develop cultural intelligence in heterogeneous cultures (e.g., the U.S.) than in homogeneous cultures. In this regard, opportunities to develop and the need for cultural intelligence may be greater in countries such as Canada which is officially bilingual and has a culturally and ethnically diverse population (24% are first generation Canadians and 16% are second generation Canadians who originated from a wide diversity of countries; Statistics Canada 2006).

One implication is that in culturally heterogeneous societies, a high level of managerial cultural intelligence is also an important factor in small businesses that have domestic-only operations. Given the lack of empirical research to date on the cultural intelligence of small business managers, our second research question is: In a culturally heterogeneous society, is managerial cultural intelligence a critical success factor for small businesses in general?

To answer our two research questions regarding managerial cultural intelligence and small business success, we conducted a study of 122 small businesses in Canada of which 59 had export/import trade and 63 had domestic-only operations. The primary purpose of this study was to investigate the extent to which managerial cultural intelligence is an important success factor for small businesses operating internationally compared to those that have domestic-only operations. One potential contribution of this study is that we examine managerial cultural intelligence in the new context of small business. We also introduce the concept of managerial cultural intelli-
gence to the small business literature for further conceptual clarity regarding what constitutes the ‘international orientation’ identified as an important human capital attribute for successful internationalization. Our findings regarding managerial cultural intelligence and organizational effectiveness will be of interest to small businesses that are currently engaged in (or considering) international trade.

**Theory and hypotheses**

This study investigates the extent to which managerial cultural intelligence is related to the internationalization of small businesses as well as the influence of managerial cultural intelligence on business performance. Figure 1 presents a summary of the research model that is tested.

**Figure 1: Research model**

Ang et al. (2007: 337) defined cultural intelligence as “an individual’s capability to function and manage effectively in culturally diverse settings”. Ang and colleagues (Ang et al 2007; Earley/Ang 2003) conceptualized cultural intelligence as having four dimensions: meta-cognitive, cognitive, motivational, and behavioral. The meta-cognitive and cognitive dimensions are concerned with cultural knowledge with the meta-cognitive dimension relating to the cultural awareness and sensemaking processes used to gain cultural knowledge, and the cognitive dimension relating to the content knowledge and understanding about other cultures’ values, norms, practices, and institutional systems that influence social interactions. The motivational cultural intelligence dimension relates to the intrinsic interest in and drive to learn about and effectively function in situations characterized by cultural differences. The behavioral dimension relates to the capability to exhibit appropriate verbal and nonverbal behavior in cross-cultural interactions and indifferent cultural settings.

While we adopt Earley/Ang’s (2003) conceptualization of cultural intelligence in this study, we note that their four cultural intelligence dimensions are reflected in other scholars’ conceptualizations of the mindset and abilities needed for cross-
cultural effectiveness. For instance, Thomas/Inkson (2004) identified three components of cultural intelligence: knowledge, mindfulness, and behavioral skills. Johnson et al. (2006) took a somewhat different approach in proposing that facets of cultural intelligence (Earley/Ang 2003) are antecedents of cross-cultural competence in international business. They defined cross-cultural competence as “an individual’s effectiveness in drawing upon a repertoire of skills, knowledge, and attributes to work successfully with people from different national cultural backgrounds, at home or abroad” (Johnson et al. 2006: 534).

Cultural intelligence can be developed in a variety of ways including formal intercultural education and training, living and working in other cultures, traveling to other cultures, and having personal and work relationships with people from different cultures (Earley/Ang 2003; Earley/Peterson 2004). Developing cross-cultural skills and abilities related to social interactions necessitates paying attention to and appreciating critical cultural and personal background differences between oneself and others (Thomas/Fitzsimmons 2007).

Cultural intelligence and small business internationalization

In regards to small businesses, managerial cultural intelligence can be understood as the knowledge, motivation, and capability of executive managers (often the owner of the firm) to conduct commercial relations with businesses, governments, and trade associations in other countries, as well as the capacity to effectively interact with employees from diverse cultures in order to meet organizational goals and strategies (Ang/Inkpen 2008; Jones/Coviello 2005). Our focus on the cultural intelligence of top managers in small businesses is informed by upper echelons theory that proposes that an organization’s strategies and performance are largely a reflection of the experiences, values, and personalities of its top executives (Hambrick 2007; Hambrick/Mason 1984). In smaller organizations where decision-making authority is more centralized, the personal orientations and characteristics of the top executive are particularly influential on the strategic decisions concerned with business internationalization (Leonidou 2004; Leonidou et al. 2007; Miesenböck 1988; Wiklund et al. 2009). For instance, strategic decisions concerned with internationalization are positively related to the entrepreneurial orientation of small businesses’ top management (De Clercq et al. 2005; Wiklund et al. 2009).

Cultural intelligence is proposed to be an important factor for developing effective relationships not only across national boundaries but also with people from different cultures and backgrounds (e.g., ethnic, demographic, functional) in one’s home cultural environment (e.g., Earley/Ang 2003; Thomas/Inkson 2004). Given the cultural and demographic diversity in modern organizations (Tsui/Gutek 1999; Earley/Gibson 2002), the opportunities and motivations to develop one’s cultural intelligence are present in one’s home country, especially in culturally heterogeneous countries (Earley 2002).

One interest of this study is to identify the extent to which cultural intelligence may be a differentiating factor between managers in internationalized small business versus their counterparts in domestic-only small businesses. Previous research has shown that small businesses that have international business activities are more likely...
to have executives who have lived and/or worked in two or more countries and have foreign language proficiency (Etemad 2004; Fernandez-Ortiz/Lombardo 2009; Leonidou 2004, 2007; Orser et al. 2008; Westhead et al. 2001). In that cultural intelligence can be learned and developed (Earley/Peterson 2004; Thomas/Inkson 2004), personal and work-related international experience provides more opportunities to learn about different cultures and to develop cross-cultural communication and behavioral competencies. Cross-cultural interactions with individuals located in different countries are more likely to involve greater learning effort than cross-cultural interactions with individuals in one’s home country with whom one would have some degree of common social and institutional cultural knowledge and experience (Ang et al. 2007). Further, the importance of and motivation for developing effective cross-cultural relationships should be higher for small business managers who are actively engaged in business relationships across national boundaries. In sum, we propose that small business managers who are conducting business internationally would have more opportunities and motivation to develop their cultural intelligence than small business managers who conduct business only domestically.

Hypothesis 1: The cross-cultural intelligence of small business managers engaged in international business is higher than that of small business managers engaged in domestic-only business.

**Cultural intelligence and small business effectiveness**

Managerial cultural intelligence can be viewed as a human capital resource that will positively impact organizational performance. Theoretically, it is expected that high levels of managerial cultural intelligence would facilitate the development of successful commercial relationships with foreign businesses and venture partners. For instance, Ang/Inkpen (2008) proposed that the cultural intelligence of the top-level decision makers is a firm-level resource that influences the managerial intercultural capability of the organization which in turn, would engender offshore outsourcing success. From a cross-cultural competence perspective, Johnson et al. (2006) proposed that the cross-cultural competence of business practitioners is an important factor in the success or failure of international business, while Muzychenko (2008) proposed that an entrepreneur’s cross-cultural competence is an important human capital resource for identifying international business opportunities.

Previous research on the effects of cultural intelligence has generally focused on individual-level outcomes. In intercultural situations, cultural intelligence is a positive factor in individual decision-making and task performance given that it enables employees to more effectively understand and enact role expectations in a culturally appropriate manner (Ang et al. 2007). Individuals with high cultural intelligence are intrinsically motivated to experience and develop their ability to function effectively in diverse cultural situations and this has been shown to facilitate expatriates’ cross-cultural adjustment to their host countries (Ang et al. 2007; Templer et al. 2006). In respect to adjustment in culturally diverse situations, cultural intelligence has additional explanatory power after controlling for demographic characteristics, general cognitive ability, emotional intelligence, and cross-cultural competence (Ang et al. 2007; Templer et al. 2006). Culturally intelligent negotiators have a greater mastery of
communication processes that result in more effective cross-cultural negotiations (Imai/Gelfand 2007; Thomas/Inkson 2004). As such, it is expected that managerial cultural intelligence would engender more effective business relationships that would enhance organizational performance in international business contexts.

To date, there has not been research investigating the influence of managerial cultural intelligence per se on organizational-level outcomes in small businesses. However, previous research has found that managerial international experience and knowledge is positively related to the financial performance of internationalized SMEs (Etemad 2004; Fernandez-Ortiz/Lombardo 2009; Knight/Kim 2009; Rialp et al. 2005). In that international experience and knowledge relate to aspects of cultural intelligence (Earley/Ang 2003), we expect that managerial cultural intelligence would positively contribute to the financial performance of small businesses. In addition, we propose that managerial cultural intelligence would yield related business benefits such as corporate reputation (e.g., Fombrun 2001) and employee commitment Jaworski/Kohli 1993) that contribute to organizational success. Managerial cultural intelligence would enhance corporate reputation by facilitating the development of mutually beneficial business relationships with diverse parties. The high level of interpersonal communication skills and understanding of interpersonal differences associated with cultural intelligence suggests that managerial cultural intelligence facilitates developing effective relationships with employees and co-workers which in turn will engender their organizational commitment. In sum, it is expected that the cultural intelligence of small business managers would engender more effective business relationships that would enhance organizational effectiveness.

Hypothesis 2: The cultural intelligence of small business managers is positively related to organizational effectiveness (financial performance, corporate reputation, and employee commitment).

As identified in the international business literature, managerial cultural intelligence is recognized as an important factor for international business performance (e.g., Ang/Inkpen 2008; Johnson et al. 2008). In contrast, the contribution of managerial cultural intelligence to organizational effectiveness is expected not to be as critical for small businesses that are not engaged in international business. One reason is that due to societal and institutional socialization processes, the level of cultural distance between oneself and others is relatively lower in within-culture interactions. Hence, we propose that the positive relationship between managerial cultural intelligence and organizational effectiveness would not be as strong for firms that engage in domestic-only business.

Hypothesis 3: The positive relationship between the cultural intelligence of small business managers and organizational effectiveness is stronger in internationalized companies than in domestic-only companies.

Cultural intelligence and the international scope of business

For internationalized small businesses, the international scope of business (number of countries imported/exported to) may also be an influential factor in the development of and requirement for managerial cultural intelligence. This aspect of business internationalization is particularly relevant in that the degree and complexity of cross-
cultural interactions for managers engaging with business counterparts in two or three countries may be relatively less than for managers conducting business in a larger number of countries. In particular, social learning to develop cultural intelligence in a greater number of countries necessitates acquiring additional culture-specific knowledge and then developing the capacity to be increasingly flexible and responsive in adjusting to a larger variety of cultural interaction norms.

Although previous research has found international scope of business is positively related to firms’ entrepreneurial orientation (e.g., De Clercq et al. 2005; Ripollés et al. 1999), the relationship between managerial cultural intelligence and the international scope of small business has not been examined to date. However, there is research that suggests that there would be a positive relationship between managerial cultural intelligence and internationalization. For instance, Ang et al. (2007) found that the cultural intelligence of foreign professionals was positively related to the number of countries in which they had worked. Sapienza et al.’s (2005) study of small business internationalization in Belgium found that the degree of internationalization is positively, although marginally, related to the international learning effort about procedures and systems in foreign markets and negatively related to domestic learning effort.

Leonidou et al. (2002) compared U.S. exporting firms in terms of whether firms had harmonious or problematic relationships with foreign customers. While they found that export experience (e.g., export experience, export sales intensity) was not a differentiating factor, firms with harmonious foreign customer relationships exported to a larger number of countries and had a larger number of foreign customers. The key difference concerned relationship management where harmonious foreign customer relations had high levels of communication, cooperation, dependence, trust, and understanding, and low levels of conflict, distance, and uncertainty. Although not directly examining managerial cultural intelligence, Leonidou et al.’s (2002) findings imply that a high degree of managerial cultural intelligence was a contributing factor in developing effective intercultural business relationships across a larger number of countries. In sum, we propose that small business managers who are conducting business in a larger number of countries (higher international scope) would have more opportunities to develop their cultural intelligence competencies. Hence, we propose:

Hypothesis 4: For internationalized small businesses, international scope of business is positively related to managerial cultural intelligence.

As previously hypothesized, we would expect a strong positive relationship between managerial cultural intelligence and organizational effectiveness for internationalized small businesses. One question is whether the influence of managerial cultural intelligence on organizational effectiveness varies depending on the number of countries with which one does business with. In this regard, Muzychenko (2008) proposed that entrepreneur’s cross-cultural competence would improve the identification of international business opportunities which in turn would likely result in better organizational performance. Similarly, we would expect higher managerial cultural intelligence that facilitates expansion into more foreign markets (Leonidou et al. 2002) would have a positive synergistic effect on various dimensions of organizational effectiveness. Hence, we propose:
Hypothesis 5: For internationalized small businesses, the positive relationship between the managerial cultural intelligence and organizational effectiveness is stronger for businesses with higher international scope than for businesses with lower international scope.

Methodology

Sample

In 2007, a total of 122 executive managers in Canadian small businesses participated in a mail survey. This survey is part of a larger cross-cultural study of small business managers in Canada and Mexico (the Mexican survey is still underway). Survey participants were identified using Industry Canada's on-line database which maintains a listing of over 60,000 Canadian businesses (http://strategis.ic.gc.ca/). Our sampling procedure was to first identify small businesses (11 to 50 employees) in the manufacturing and services sectors that imported and/or exported their goods and services with Mexican businesses. This country focus was due to the nature of research grant program which was to research aspects of Canada’s bilateral relations with Mexico. For industry type comparability, we limited our search to companies located in Alberta, British Columbia, and Ontario which are the economically largest provincial economies in Canada. Given that our survey was in English, Quebec businesses were not included in the sampling frame. After excluding companies that did not list a top executive name, the initial sample was 440 small businesses. We then selected a proportionate random sample (by province and by manufacturing and service sector) of 440 small businesses that had domestic-only operations. To facilitate response rates and honesty in answers, survey invitations assured participants of the confidentiality and anonymity of their responses. Participants were told not to provide self-identifying information on returned surveys (to be returned in self-addressed business reply envelopes), and requests for summary results were to be sent in separate self-addressed business reply envelopes.

A total of 122 small business executives responded to the survey for a response rate of 14% (after accounting for 29 undeliverable and unusable surveys). In respect to types of organizations in the sample, 60% were in manufacturing and 40% were in services industry sectors, with 52% being domestic-only operations and 48% having import/export operations. For the 59 organizations that had international trade, 58% operated in two to four countries, 17% operated in five to 10 countries, and 25% operated in 11 to 50 countries.

In respect to respondent demographic characteristics, our sample of small business executives was 88% male, and the average age was 52.8 years (s.d. = 11.0). In respect to education level, 58% had university degrees (33% Bachelors and 25% graduate degrees), 13% had completed partial university/college, and 29% had high school graduation or less.

In respect to multicultural background, 75% of the sample respondents were born in Canada, 10% in the UK or the USA, and 15% in other countries. In terms of language proficiency, 30% of respondents were unilingual (English), 41% were bilingual, and 29% were multilingual. For bi- and multilingual respondents, 47% had French language proficiency and 62% had Spanish language proficiency. The high
percentage of French speaking respondents (33% for the total sample) is attributable to Canada being a bilingual nation, whereas the high percentage of Spanish speaking respondents (44% of total sample) is attributable to our sampling design which targeted businesses that conduct import/export trade with Mexican businesses. However, there were no significant differences between managers in internationalized businesses and those in domestic-only businesses in regards to either birth nation (Canada vs. other: $t = .17, n.s.$) or language proficiency ($t = .84, n.s.$).

**Measures**

*Cultural intelligence.* Our measure of cultural intelligence was a 5-item cultural intelligence scale adapted from Ang et al. (2007). Participants were asked to describe themselves in respect to: “I enjoy interacting with people from different cultures”, “I am confident that I can socialize with locals in a culture that is unfamiliar to me”, “I am sure I can deal with the stresses of adjusting to a culture that is new to me”, “I enjoy living in cultures that are unfamiliar to me”, “I am confident that I can get accustomed to the shopping conditions in a different culture”. Responses were on a 7-point Likert-type scale where 1 = strongly disagree and 7 = strongly agree. The scale reliability (Cronbach alpha) for the cultural intelligence scale was .87.

Confirming evidence of the validity of the cultural intelligence measure was provided by examining respondents’ multiculturalism experience. As expected, respondents who were foreign born had higher cultural intelligence scores than those who were Canada-born ($t = -2.18, p < .05$), and respondents who were bilingual/multilingual had marginally higher cultural intelligence scores than those who were unilingual ($t = -1.83, p < .10$).

*Organizational effectiveness.* Three dimensions of organizational effectiveness were examined in this study: financial performance, corporate reputation, and employee commitment. Financial performance was measured using a 5-item scale based on Samiee/Roth (1992). Respondents were asked the extent to which their organization’s return on investment, return on assets, market share growth, sales growth, and profit growth had been better compared to their most relevant competitors over the past three years. Participants’ perceptions of their firms’ corporate reputation was measured using four items adapted from Fombrun et al. (2000). Scale items were: “In general, our organization has a good reputation”, “We are widely acknowledged as trustworthy organization”, “This organization is known to sell high quality products and services”.

Employee commitment was measured using a 4-item scale derived from Jaworski/Kohli (1993). This scale was used because it measures perceptions of the business unit manager concerning the organizational commitment of their employees which is more consistent with this study’s focus than employee self-report measures of organizational commitment (e.g., Allen/Meyer 1990). Employee commitment scale items were: “In general, employees are proud to work for this organization”, “Our employees often go above and beyond their regular responsibilities to ensure the organization’s well-being”, “The bonds between this organization and its employees are very strong”, and “Our people are very committed to this organization”.
Item responses for all three scales were on a 7-point Likert-type scale where 1 = strongly disagree and 7 = strongly agree. The scale reliabilities (Cronbach alpha) were: α = .91 for the financial performance; α = .74 for the corporate reputation; and α = .86 for employee commitment.

**International trade status and international scope.** Small businesses that engaged in international trade (export and/or import) were coded as 1 and those that conducted domestic-only business were coded as 0. For the firms that had international export/import activities, international scope was measured by the number of countries that company exported/imported with (Ripollés-Meliá et al. 2007). To correct for the positive skewness in this variable (range of 2 to 50 countries), we used the natural logarithm of this variable in analyses (Hair et al. 2005).

**Entrepreneurial orientation.** The entrepreneurial orientation of the firm has been consistently identified as influencing financial and nonfinancial organizational performance (e.g., Rauch et al. 2009) as well as international business activities (e.g., De-Clercq et al. 2005; Ripollés-Meliá et al. 2007). Therefore, we included Covin/Slevin’s (1989) measure of entrepreneurial orientation as a covariate in analyses. Respondents were asked to respond to 8 bi-polar items on a 5-point scale where 1 = nonentrepreneurial and 5 = entrepreneurial. Sample items include: “Changes in product or services have been mostly of a minor nature” vs. “Changes in product or service have usually been quite dramatic”; “My company typically responds to actions which competitors initiate” vs. “My company typically initiates actions to which competitors then respond”. Exploratory factor analysis showed two factors with 6 items loading onto the first factor, and 2 items loading onto the second factor. Hence, we used a 6-item entrepreneurial orientation scale which had a Cronbach alpha of .76.

**Organizational and demographic covariates.** Previous research has identified industry differences in firm performance as well as internationalization (e.g., Ripollés-Meliá et al. 2007; Sapienza et al. 2005). Thus, industry sector was included as an organizational covariate (1 = manufacturing, 0 = services). Demographic characteristics may be related to cultural intelligence (Thomas/Inkson 2004) as well as small business performance (Wiklund et al. 2009). Hence, we controlled for participant age (years), gender (1 = female, 0 = male), and education level (1 = high school graduate or less; 2 = undergraduate; 3 = graduate).

**Procedures**

To test hypothesis 1 regarding influences on managerial cultural intelligence, we conducted a linear regression in which the dependent variable was cultural intelligence, the independent variable was international trade status, and the covariates were respondent age, gender, education level, and industry.

We conducted hierarchical linear regressions to test hypotheses regarding the influence of managerial cultural intelligence (hypothesis 2) and the interaction between international trade status and cultural intelligence (hypothesis 3) on organizational effectiveness. In these analyses, the dependent variables were financial performance, corporate reputation, and employee commitment. In the first step of the regressions, we entered the international trade status variable, and the covariates of respondent age, gender, education level, industry, and entrepreneurial orientation. In the second
step, we entered the cultural intelligence independent variable to test hypothesis 2. And in the third step, we entered the interaction between international trade status and cultural intelligence (which was the test of hypothesis 3). In the hierarchical linear regressions, the cultural intelligence and entrepreneurial orientation variables were mean-centered and the interaction variable was created using the mean-centered variables to minimize any collinearity effects (VIF = 1.34 for the full model).

To test hypotheses regarding international scope, we conducted parallel regression analyses using the reduced sample of businesses that had export/import activities (N = 59). In the regression to test hypothesis 4, the dependent variable was cultural intelligence, the independent variable was international scope, and the covariates were age, gender, education level, and industry. In the hierarchical regressions to test hypothesis 5, the dependent variables were financial performance, corporate reputation, and employee commitment. In the first step, we entered international scope and the covariates (age, gender, education level, industry, and entrepreneurial orientation). Cultural intelligence was entered in the second step, and the international scope and cultural intelligence interaction was entered in the third step.

Common method variance. To address the potential issue of common method variance in this study which relied on self-report survey data (cf Podsakoff et al. 2003), we utilized the following procedures. First, preventive measures included providing anonymity and confidentiality of responses to participants; items for the dependent and independent variables were presented in separate sections; different response formats were used; and we used measures found to be valid and reliable by previous research. We also conducted an exploratory factor analysis (EFA) that included all dependent and independent variable scale items. Using varimax rotation, the EFA showed five factors with items loading at .60 or higher on to their respective scales with no significant item cross-loadings. The eigenvalues and percentage variance explained for each factor were: Factor 1 (financial performance) Eigenvalue = 3.80, 17% variance; Factor 2 (cultural intelligence) Eigenvalue = 3.46, 16% variance; Factor 3 (entrepreneurial orientation) Eigenvalue = 2.90, 13% variance; Factor 4 (employee commitment) Eigenvalue = 2.33, 10% variance; Factor 5 (corporate reputation) Eigenvalue = 2.15, 9% variance. In sum, these results indicate that common method variance was not an influential factor in this study.

Results

Table 1 presents the means, standard deviations, correlations, and scale reliabilities for the study variables. Table 2 presents the results of the hierarchical linear regressions to test hypotheses 1, 2, and 3, and table 3 presents the results of the hierarchical linear regressions to test hypotheses 4 and 5.

Consistent with hypothesis 1, the cultural intelligence of managers in internationalized small businesses was significantly higher than that of managers in domestic-only small businesses (β = .27, p < .01, model 1). Hence, hypothesis 1 was supported.

Hypothesis 2 proposed that the cultural intelligence of small business managers is positively related to organizational effectiveness in terms of financial performance, corporate reputation, and employee commitment. As shown in table 2, cultural intelligence was positively related to corporate reputation (β = .25, p < .05, model 3b), and
to employee commitment ($\beta = .33$, $p < .001$, model 4b), but was not significantly related to financial performance ($\beta = .10$, n.s., model 2b). Hence, moderate support was found for hypothesis 2.

**Table 1: Descriptive statistics: Means, standard deviations, correlations, and scale reliabilities**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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</thead>
<tbody>
<tr>
<td>1. Cultural intelligence</td>
<td>5.50</td>
<td>1.13</td>
<td>.87</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. Financial performance</td>
<td>4.62</td>
<td>1.25</td>
<td>.06</td>
<td>.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3. Corporate reputation</td>
<td>6.58</td>
<td>.54</td>
<td>.23</td>
<td>.18</td>
<td>.74</td>
<td></td>
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</tr>
<tr>
<td>4. Employee commitment</td>
<td>5.98</td>
<td>.80</td>
<td>.36</td>
<td>.21</td>
<td>.32</td>
<td>.86</td>
<td></td>
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<tr>
<td>5. International trade status</td>
<td>.47</td>
<td>.50</td>
<td>.25</td>
<td>.05</td>
<td>.90</td>
<td>.10</td>
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<tr>
<td>6. International scope</td>
<td>1.67</td>
<td>1.05</td>
<td>-.11</td>
<td>.02</td>
<td>-.21</td>
<td>-.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7. Entrepreneurial orientation</td>
<td>3.01</td>
<td>.78</td>
<td>.11</td>
<td>.15</td>
<td>.26</td>
<td>.03</td>
<td>.19</td>
<td>.78</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>8. Age</td>
<td>52.85</td>
<td>11.01</td>
<td>.00</td>
<td>.01</td>
<td>-.08</td>
<td>-.03</td>
<td>-.06</td>
<td>-.16</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Gender</td>
<td>.12</td>
<td>.33</td>
<td>.05</td>
<td>-.06</td>
<td>-.00</td>
<td>.11</td>
<td>-.06</td>
<td>-.18</td>
<td>-.01</td>
<td>-.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Education level</td>
<td>1.97</td>
<td>.73</td>
<td>.15</td>
<td>-.22</td>
<td>-.08</td>
<td>.04</td>
<td>.22</td>
<td>.25</td>
<td>.12</td>
<td>-.10</td>
<td>-.08</td>
<td></td>
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<tr>
<td>11. Industry</td>
<td>.60</td>
<td>.49</td>
<td>-.15</td>
<td>-.07</td>
<td>-.08</td>
<td>-.16</td>
<td>-.09</td>
<td>-.03</td>
<td>.03</td>
<td>-.06</td>
<td>-.05</td>
<td>-.08</td>
</tr>
</tbody>
</table>

*a N = 122 for all variables except for international scope where N = 59 (only businesses with import/export trade). Scale reliabilities (Cronbach $\alpha$) are on the diagonal. Correlations $r > .18$ significant at $p < .05$ level, $r > .23$ at $p < .01$ level.

*b Categorical variables coded as follows: gender: 1 = female, 0 = male; education level: 1 = high school, 2 = undergraduate, 3 = graduate; industry: 1 = manufacturing, 0 = services; international trade status: 1 = businesses with import/export trade, 0 = domestic-only businesses.

c International scope is the natural logarithm of number of countries exporting/importing with for the 59 businesses with international trade activities.

**Table 2: Regression results: Cultural intelligence, international trade status, and organizational effectiveness**

<table>
<thead>
<tr>
<th>Cultural Intelligence</th>
<th>Financial Performance</th>
<th>Corporate Reputation</th>
<th>Employee Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2a 2b 2c</td>
<td>3a 3b 3c</td>
<td>4a 4b 4c</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.04</td>
<td>-.02</td>
<td>-.02</td>
</tr>
<tr>
<td>Gender</td>
<td>.09</td>
<td>-.04</td>
<td>-.06</td>
</tr>
<tr>
<td>Education level</td>
<td>-.11</td>
<td>-.28**</td>
<td>-.30**</td>
</tr>
<tr>
<td>Industry</td>
<td>-.18†</td>
<td>-.11</td>
<td>-.10</td>
</tr>
<tr>
<td>Entrepreneurial orientation</td>
<td>.23*</td>
<td>.23*</td>
<td>.22*</td>
</tr>
<tr>
<td>International trade status</td>
<td>.23***</td>
<td>.04</td>
<td>.01</td>
</tr>
<tr>
<td>Cultural intelligence</td>
<td>.10</td>
<td>.03</td>
<td>.25*</td>
</tr>
<tr>
<td>International trade status x Cultural intelligence</td>
<td></td>
<td></td>
<td>.13</td>
</tr>
<tr>
<td>F</td>
<td>3.41</td>
<td>2.37</td>
<td>2.19</td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>.01</td>
<td>.01</td>
<td>.005**</td>
</tr>
<tr>
<td>Total R$^2$</td>
<td>.14**</td>
<td>.13*</td>
<td>.14*</td>
</tr>
</tbody>
</table>

† $p < .10$ / * $p < .05$ / ** $p < .01$ / *** $p < .001$
Hypothesis 3 proposed that the positive relationship between managerial cultural intelligence and organizational effectiveness would be stronger in internationalized small businesses than in domestic-only small businesses. Inconsistent with hypothesis 3, there were no significant interactions between international trade status and cultural intelligence for financial performance ($\beta = .13$, n.s., model 2c), corporate reputation ($\beta = .11$, n.s., model 3c), or employee commitment ($\beta = .11$, n.s., model 4c). Hence, hypothesis 3 was not supported.

For the subset of internationalized small businesses that had export/import activities, we proposed hypotheses regarding the influence of international scope (number of countries with which exported/imported) on managerial cultural intelligence (hypothesis 4) as well as the interaction between international scope and cultural intelligence on organizational effectiveness (hypothesis 5). Hypothesis 4 proposed that international scope would be positively related to the cultural intelligence of managers in internationalized small businesses. As shown in table 3, international scope was not significantly related to cultural intelligence ($\beta = -.16$, not sig., model 1). Additional analyses did not show a significant curvilinear relationship for international scope. Hence, hypothesis 4 was not supported.

Hypothesis 5 proposed that the positive relationship between managerial cultural intelligence and organizational effectiveness would be stronger in internationalized small businesses that had higher international scope than those that had lower international scope. Inconsistent with hypothesis 5, there were no significant interactions between international scope and cultural intelligence for financial performance ($\beta = .16$, n.s., model 2c), corporate reputation ($\beta = .03$, n.s., model 3c), or employee commitment ($\beta = -.03$, n.s., model 4c). Hence, hypothesis 5 was not supported.

Table 3: Regression results: Cultural intelligence, international scope of trade, and organizational effectiveness of internationalized small businesses (N = 59)

<table>
<thead>
<tr>
<th>Cultural Intelligence</th>
<th>Financial Performance</th>
<th>Corporate Reputation</th>
<th>Employee Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-10</td>
<td>-16</td>
<td>-06</td>
</tr>
<tr>
<td>Gender</td>
<td>-.02</td>
<td>-.11</td>
<td>-.01</td>
</tr>
<tr>
<td>Education level</td>
<td>.14</td>
<td>.12</td>
<td>.11</td>
</tr>
<tr>
<td>Industry</td>
<td>-.02</td>
<td>-.08</td>
<td>-.05</td>
</tr>
<tr>
<td>Entrepreneurial orientation</td>
<td>.27†</td>
<td>.21</td>
<td>.19</td>
</tr>
<tr>
<td>International scope</td>
<td>-.16</td>
<td>.00</td>
<td>.05</td>
</tr>
<tr>
<td>Cultural intelligence</td>
<td>.16</td>
<td>.14</td>
<td>.32*</td>
</tr>
<tr>
<td>International scope</td>
<td>.16</td>
<td>.03</td>
<td>.32*</td>
</tr>
<tr>
<td>x Cultural intelligence</td>
<td>.03</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.04</td>
<td>.11</td>
<td></td>
</tr>
</tbody>
</table>

† p < .10 / * p < .05 / ** p < .01 / *** p < .001
Findings for the covariates

As shown in table 2, small business managers in services industry sectors had marginally higher cultural intelligence than those in manufacturing sectors ($\beta = .18$, $p < .10$, model 1), but respondent age, gender, and education level were not significantly related to cultural intelligence. The entrepreneurial orientation of a small business was positively related to financial performance ($\beta = .23$, $p < .05$, model 2a) and to corporate reputation ($\beta = .23$, $p < .05$, model 3a), but unrelated to employee commitment ($\beta = -.01$, n.s., model 4a). While the education level of managers was negatively related to financial performance ($\beta = -.28$, $p < .01$, model 2a), manager age, gender, and education level were not significantly related to organizational effectiveness.

Discussion and conclusions

This study sought answers to the following research questions: Is managerial cultural intelligence a critical success factor for small business internationalization? Is managerial cultural intelligence a critical success factor for small businesses in general?

Managerial cultural intelligence and cross-cultural competency have been advanced as particularly important factors in organizational success for international business in general (e.g., Ang/Inkpen 2008; Johnson et al. 2006; Thomas/Inkson 2004) and international small business in particular (e.g., Jones/Coviello 2005; Knight/Kim 2009; Sapienza et al. 2005). While we found that managers of internationalized small businesses had higher levels of cultural intelligence than those in domestic-only small businesses, the business benefits were similar for both types of organizations. Specifically, we found that for executives in 122 small businesses in Canada, managerial cultural intelligence is a significant factor, in addition to firm entrepreneurial orientation, for enhancing corporate reputation and employee commitment, but not for enhancing financial performance. One interpretation of these findings is that managerial cultural intelligence per se may not directly translate into financial performance benefits as suggested by previous research that has found modest effects of individual CEO characteristics on firm financial performance (e.g., Lieberson/O’Connor 1972). Instead, the effect of individual top executives on the financial bottom-line of small businesses may be through more indirect qualitative factors such as influencing strategic decision making and others’ behaviors in organizations (e.g., Crossland/Hambrick, 2007; Podolny/Khurana/Hill-Popper 2005) that in turn, enhances corporate reputation and employee commitment. Even so, for those who advocate the need for developing the cultural intelligence of their managers (e.g., Earley/Peterson 2004; Thomas/Inkson 2004), our findings raise a challenge in demonstrating the tangible business benefits to be gained from investing in cross-cultural training and development.

Conceptualizations of cultural intelligence highlight the importance of an awareness and appreciation of cultural diversity in values, attitudes and behaviors as well as effective interpersonal skills in attending to and managing those differences (e.g., Ang et al. 2007; Earley/Ang 2003; Thomas/Inkson 2004). At a fundamental level, the managerial mindfulness and experience associated with cultural intelligence would appear to be consistent with management and leadership communication and interpersonal skills needed to develop effective relationships with those holding different per-
One implication of this study’s findings is that the interpersonal competencies underlying the mindfulness and behavioral skills components of cultural intelligence (Thomas/Inkson 2004) are similarly relevant for effective within-culture interactions that would enhance organizational effectiveness. Our findings also suggest support to Earley’s (2002) proposition that cultural intelligence may be more developed in countries that have more culturally heterogeneous populations such as Canada. However, future cross-cultural research with two or more countries is needed to confirm this implication. In sum, these findings suggest that managerial cultural intelligence may be a generalized managerial competency that contributes to both international and domestic business success.

And finally, we did not find support for our exploratory hypotheses that managerial cultural intelligence would be influenced by the international scope of small businesses (Ang et al. 2007) or that both would have a synergistic effect on organizational effectiveness (Leonidou et al. 2002; Sapienza et al. 2005). One explanation could be that managerial cultural intelligence is only predictive of the basic strategic decision to internationalize or not. Another explanation could be that the relatively small sample of internationalized small businesses as well as the generally high level of cultural intelligence of these managers may have affected the statistical power to test hypotheses. As such, we suggest that future research with larger samples is needed.

Limitations and directions for future research

One limitation of this study was the use of self-reported survey data. Small businesses are generally privately-owned and assurances of anonymity prevented the collection of independent and publicly available data to confirm survey responses. Although measures were taken to address the issue of common method bias (Podsakoff et al. 2003) and statistical analyses indicated that this was not a major issue, the possibility remains that common method bias may have affected study results.

Another possible limitation is the context of Canada which is a culturally/ethnically diverse and officially bilingual nation. The high proportion of respondents who were bilingual may have affected study results given that foreign language proficiency relates to cross-cultural interaction capabilities (Earley/Ang 2003). Hence, variation in the cultural intelligence of study respondents may have been restricted. As such, cross-cultural research is needed to address whether our results are generalizable to other societal contexts to address questions such as: Are there cross-national differences in the relationship between cultural intelligence and organizational effectiveness? If so, are such cross-national differences attributable to the economic development level or cultural homogeneity/heterogeneity of a country?

In this study, we measured internationalization as a binary variable (internationalized vs. domestic-only) and in terms of international scope (number of countries exported/imported to). International scope is but one dimension of internationalization with other measures being the degree of internationalization (e.g., ratio of import/exports to total sales), speed of internationalization (e.g., rate of entry into foreign markets), and mode of market entry (export vs. FDI) identified in other studies (e.g., Ripollés-Meliá et al. 2007). Hence, one direction for future research is to include
different measures of business internationalization to study managerial cultural intelligence.

We note that Ang/Inkson (2008) recently proposed that there are three dimensions of firm-level cultural intelligence: managerial, competitive, and structural. Future research is needed to investigate how managerial cultural intelligence relates to other types of firm-level cultural intelligence as well as their relationships with organizational performance. In that we studied small businesses, how generalizable are this study’s findings to larger organizations?

Concluding comments

While previous research has generally focused on cultural intelligence as it relates to expatriate adjustments to foreign country assignments (Earley/Ang 2003, Thomas 2006), one contribution of this study was to examine the relevance of managerial cultural intelligence for small business managers engaged in international business. Another contribution of this study is that we identified the extent to which managerial cultural intelligence is a value-added to firm entrepreneurial orientation in engendering organizational effectiveness in small business. In this regard, our findings indicate that firm entrepreneurial orientation is a determining factor in the financial performance of small businesses (Rauch et al. 2009) whereas cultural intelligence may have a more indirect effect on organizational effectiveness. Even so, cross-cultural research is needed to further delineate the extent to which the cultural intelligence of small business managers is a managerial competency that is uniquely required for international business success or is more generally applicable to within-culture business interactions as well.

References


