Analyzing the Effects of Demographic and Organizational Factors on Global Mindset of Business Leaders: An Empirical Multi-Industry Study from Five Continents

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ABSTRACT

This mixed-method study defines, clarifies, and operationalizes the concept of global mindset and identifies statistically significant factors that contribute to the development of a global mindset. Seven demographic and six organizational factors are examined for their effects on global mindset. The sample includes 158 senior business leaders operating at global organizations on five continents who participated in a web-survey. Global mindset is measured by a composite score of the leader's intellectual and cultural intelligence. Six factors: (a) number of foreign languages spoken, (b) raised by/live in a bilingual/multi-ethnic family, (c) number of countries worked in, (d) location/country of employment, (e) percentage of employees working overseas, and (f) percentage of revenue from overseas are found to significantly increase global mindset. The study confirms that global mindset is critical to leadership in business.

Keywords: Global Mindset; Global Leadership Competency; Global Business, Leadership Development

INTRODUCTION

As globalization continues to impact the environment of leaders, organizations increasingly seek global mindset skills (McCall & Hollenbeck, 2002). Researchers noted a need for global leaders with behavioral abilities that include cross-cultural understanding and cognitive and relational skills (Gupta & Govindarajan, 2002). Studies indicate that globalization does not change the basic requirements of effective leadership (Clapp-Smith, 2009; Goldsmith, Greenberg, Robertson, & Hu-Chan, 2003; Kouzes & Posner, 2010). However, the literature indicates that globalization affects leadership by increasing the complexity of the leader's task, environment, and decision-making (Mendenhall, Osland, Bird, Oddou, & Maznevski, 2008).

According to Gupta and Govindarajan (2001), successful global leaders must have high differentiation and high integration skills that include understanding differences among economic, political, legal, and cultural environments, and their impacts on business to synthesize and incorporate these differences into meaningful patterns of decision-making. Similarly, the term "thinking globally" has been identified as an important leadership competency in global business (Jeannet, 2000; Rhinesmith, 1996, 2003). Lane, Maznevski, Mendenhall, and McNett (2004) note that thinking globally involves "extending concepts and models from one-to-one relationships to holding multiple realities and relationships in mind simultaneously, and then acting skillfully on this more complex reality" (p. 14). According to Kedia and Mukherji (1999), thinking globally requires leaders to use systems thinking to address global complexity.

The existing research on global leadership has been mostly prescriptive, noting a wide-range of skills that global leaders need in order to operate successfully in a global environment (Jeannet, 2000; Kedia & Mukherji, 1999; Rhinesmith, 1996, 2003). Although there

has been no agreement on the requirements for effective global leaders, the literature reveals similarities in describing a global mindset (Clapp-Smith, 2009; Javidan, 2009; Lane et al., 2004; Mendenhall et al., 2008). The most often noted leadership competencies of global leaders include: thinking globally, cultural understanding, relationship skills, business acumen, soft and hard skills, visioning, strategizing, and global analytical skills (Goldsmith et al., 2003; Javidan, 2009; Mendenhall et al., 2008).

LITERATURE REVIEW

Leadership is the process of influencing others to understand what the leader wants them to do and inspire others to follow the leader (Leslie, Dalton, Ernst, & Deal, 2002). According to Goldsmith et al. (2003) and Gupta and Govindarajan (2002), the study of global leadership must be context-specific. Global leadership involves inspiring and influencing the thinking, attitudes, and behavior of people from different parts of the world (Adler & Bartholomew, 1992; Dorfman & House, 2004). One of the main requirements of global leaders is to be able to work effectively across different economic, political, legal, and social systems, cultures, time zones, and physical distances.

Whereas the context of domestic leaders is the home country or domestic business, the context of global leaders includes worldwide, geographically dispersed networks of people with different cultural values, norms, attitudes, and business practices. Therefore, global leaders must be able to motivate a global workforce and have a broad perspective on the world and business activities.

Research on global mindset has been mostly theoretical, requiring validation by empirical studies (Kedia & Mukherji; 1999; Rhinesmith, 2003, Gupta & Govindarajan, 2002). Global mindset has been referred to as "a process of reframing a cognitive reference point, shifting the leader's worldview and developing a new paradigm of meaning or perspective-taking" (Clapp-Smith, 2009, p. 22.). Gupta and Govindarajan (2002) examined global mindset through interviews with leaders asking diagnostic questions related to the leaders' decision making and management. They proposed that global mindset is "a knowledge structure…that combines an openness and awareness of diversity across cultures and markets with a propensity and ability to synthesize across this diversity" (p. 111). While the authors posited that global mindset may lead to superior overall global performance, no empirical testing was conducted to validate this assumption. In 2009, the Thunderbird School of Global Management conducted an MBA Roundtable survey of 72 programs in which most of the respondents indicated that global mindset development was a strategic priority. However, only six of the surveyed programs used an instrument to measure outcomes related to developing a global mindset (Javidan, 2009).

There seems to be a gap in the literature due to a lack of empirical findings that are required to evaluate relationships between global mindset and possible influencing factors. One of the key unresolved issues has been the difficulty in defining global mindset and operationalizing its dimensions. Researchers have called for a greater understanding of global mindset and for examining the effects of variables that may increase global mindset (Kedia & Mukherji, 1999; Mendenhall et al., 2008; Rhinesmith, 2003).

Previous research indicates that early childhood exposure to international experiences, and living in different countries, and/or in multi-cultural, bilingual family environments may help develop an attitude of openness, flexibility, cross-cultural understanding, and the ability to relate to differences in work and social settings (Dalton, Deal, & Leslie, 2002). Accordingly, this study examines if knowledge of foreign languages, cross-cultural training, and experience working in and conducting business with different countries contributes to the global mindset of business leaders (Bouquet, 2003, Gupta & Govindarajan, 2001). Studies also indicate that age and gender may influence global mindset (Javidan, House, Dorfman, Hanges, & Sully de Luque, 2006). However, the impact of age and

gender on global mindset is inconclusive. More research is needed to discover the relationship between demographic factors and global mindset. In addition to examining the effect of age and gender on global mindset, this study also attempts to determine the impact of position within the organization, product line, and geographic location/country of employment on global mindset.

Various organizational factors have been studied in relation to global mindset to examine business strategy and organizational development (Adler, Doktor, & Redding, 1986; Hennan & Pelmutter, 1979). Bartlett, Goshal, and Beamish (2008) discuss transnational management and leadership practices with implications for global mindset, noting that firm size, location, and the degree of international operations are likely to influence leadership decisions and strategy. Bouquet (2003) notes that top-management attitudes influence information gathering, perspective taking, and structure. This study holds that global mindset is influenced by organizational factors, such as the number of countries of operations, and the revenue generated from foreign operations. This study also expands the existing research by examining the relationship between global mindset, product line, and company size as measured by the total number of employees. According to Govindarajan and Gupta (2002), the more involved an organization is in global markets, the more likely it is that business leaders have a global mindset. However, the authors do not provide empirical support for this proposition.

Cultural differences have been noted to influence leadership attitudes and behaviors (Hofstede, 1997, 2001; Hodgetts, Luthans, & Doh, 2007). House, Javidan, Hanges, and Dorfman (2002) found that Western cultural values are not universal and that differences in cultural values impact leadership practices, leader-follower relations, organizational norms and practices, and the preferred style of leadership. To expand on existing research on cross-cultural leadership, this study examines the extent to which the location of the company's headquarters influence the global mindset of business leaders.

In addition to the organizational factors reported in previous studies, this study evaluates the effects of the percentage of employees who work overseas, percentage of revenue generated from foreign operations, and the location of the company's headquarters on global mindset. Firms that operate across global markets depend to a great extent on integration and system-network capabilities (Jeannet, 2000; Bartlett et al., 2008). Therefore, this study assumes that as the percentage of employees working overseas increases, and as the percentage of revenue from foreign operations increases, the global mindset of the leaders who can coordinate global operations effectively also increases.

CONCEPTUAL FRAMEWORK

The purpose of this study is to determine the factors that may increase the global mindset of business leaders by exploring the effects of seven demographic and six organizational factors on global mindset. Specifically, the study uses an online survey developed by the researcher to examine the effects of thirteen factors on the two main components of the leader's global mindset: intellectual intelligence and cultural intelligence. According to the conceptual framework of the study (see Figure 1), demographic and organizational factors have a direct influence on the global mindset of business leaders by influencing the leader's intellectual and cultural intelligence.

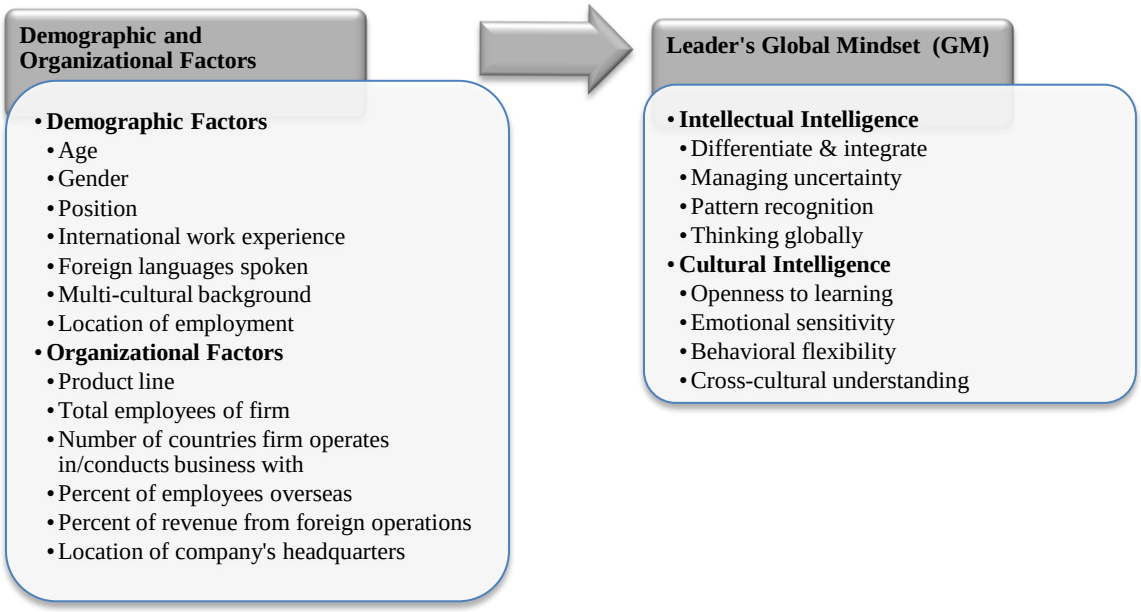


Figure 1. *Demographic and Organizational Factors and the Leader's Global Mindset*

GLOBAL MINDSET OPERATIONALIZED

Global mindset in this study refers to the ability of business leaders to: Process complex information by differentiating and integrating multiple concepts, events, and situations to make informed decisions (Rhinesmith 1996, 2003). Select information, analyze it and integrate differences by breaking down information into understandable, relevant and manageable pieces, and to put these pieces together in meaningful and useful forms (Gupta & Govindarajan, 2002). Use business, industry, customer base, and competitive forces on a global basis as a reference point (Jeannet, 2000). Combine an openness to, and awareness of, diversity across cultures with a propensity and ability to synthesize across this diversity (Kedia & Mukherji, 1999).

Global mindset is operationalized as the leader's intellectual and cultural intelligence. Intellectual intelligence refers to the ability to differentiate and integrate information, where "differentiation and integration is the capacity to use many categories or multiple dimensions to organize information" (Gupta & Govindarajan, 2002, p. 117). Cultural intelligence refers to the cognitive framework for organizing and understanding cultural cues to adapt and enact leadership behavior in a given context and "expand one's behavioral repertoire to interact effectively with culturally different environments" (Clapp-Smith, 2009, p. 41). The study conceptualizes that global mindset is a composite score of the leader's (a) intellectual intelligence that is comprised of the leader's ability to differentiate and integrate, manage uncertainty, pattern recognition, and thinking globally, and (b) cultural intelligence that is comprised of openness to learning, emotional sensitivity, behavioral flexibility, and cross-cultural understanding.

FOCUS OF RESEARCH

The study examines two research questions: (1) What demographic factors increase the global mindset of business leaders in global organizations? and (2) What organizational factors increase the global mindset of business leaders in global organizations?

HYPOTHESIS 1

H_1: Demographic factors influence the global mindset of business leaders.

To examine Hypothesis 1, seven sub-hypotheses were tested against their respective null hypothesis:

H_{01a}: Age does not influence global mindset.
H_{01b}: Gender does not influence global mindset.
H_{01c}: Position does not influence global mindset.
H_{01d}: The number of countries worked in/conducted business with does not influence global mindset.
H_{01e}: Knowledge of foreign languages does not influence global mindset.
H_{01f}: Raised by a bilingual/multi-ethnic family does not influence global mindset.
H_{01g}: The location/country of employment does not influence global mindset.

HYPOTHESIS 2

H_2: Organizational factors influence the global mindset of business leaders.

To examine Hypothesis 2, six sub-hypotheses were tested against their respective null hypothesis:

H_{02a}: Product line does not influence global mindset.
H_{02b}: The total number of employees does not influence global mindset.
H_{02c}: The number of countries of operations does not influence global mindset.
H_{02d}: The percentage of employees working overseas does not influence global mindset.
H_{02e}: The percentage of revenue from foreign operations does not influence global mindset.
H_{02f}: The location/country of company's headquarters does not influence global mindset.

RESEARCH METHODS

Research Design

The mixed-study research design included both quantitative and qualitative inquiry. The quantitative inquiry included a researcher-developed 32-item web-survey designed to assess the relationships among global mindset and 13 demographic and organizational factors. The survey asked participants to rate each of the 18 global mindset items on a 1-5 Likert-scale where 1=Not at all and 5=Very large extent. Ten of the 18 items were used to measure the leader's intellectual intelligence; the remaining eight items were used to measure the leader's cultural intelligence. The qualitative inquiry included four open-ended questions asking participants to list some of the most important characteristics of a global mindset, and the personal, educational, and professional experiences they believed had the strongest influence on global mindset capabilities. To test and refine the survey instrument, a pilot study was conducted with thirty business executives engaged in global operations, working across varied industries engaged in international business at multiple locations, and across various regions and countries. Results of the pilot study were used to identify survey items that needed clarification. A few items were rephrased for better clarity and to avoid social desirability.

Sample

To assess global mindset capabilities, it was necessary to obtain a purposeful sample of business executives who had experience working in global business, and who had responsibility for global operations and business transactions across cultures and countries. Senior leaders were selected from lists of international companies, directories of overseas operations, and business executive data sets.

Accordingly, the survey was administered to a purposeful random sample of senior business leaders from Fortune Global 500 corporations and Forbes' Global 2000 firms across various industries. 950 senior business leaders were contacted via email and invited to voluntarily participate in the study. 486 valid e-mail contacts were made from which 158 participants submitted responses. The participants worked at various organizations that were headquartered in different countries and operated in a variety of global industries.

DATA ANALYSIS METHODOLOGY

Data analysis consisted of: (1) descriptive statistical analysis, (2) reliability and validity analysis of the Global Mindset scale, (3) hypothesis testing, and (4) qualitative analysis (results of qualitative analysis are not presented in this paper). Data analysis was conducted using SPSS version 16 and M*plus* version 6 statistical software packages. Descriptive statistics were used to describe the demographic and organizational characteristics of the sample and the leader's global mindset. Descriptive statistics were conducted using SPSS, and were comprised of frequency distributions for the demographic and organizational categorical variables, and the means and standard deviations of the global mindset continuous variables. Chi-square nonparametric statistical tests of goodness of fit were used to determine how well the frequency distribution of each of the categorical variables fit the sample distribution. All inferential statistics were conducted using parametric procedures based on the general linear model (e.g., analysis of variance, multiple regression, and multivariate statistical analysis), and rejection of the null hypothesis for all inferential statistics was based on type 1 error rates less than p = .05 (two-tailed tests).

Reliability and Validity of the Survey Instrument

To assess the reliability and validity of the survey instrument, Cronbach's alpha and confirmatory factor analysis (CFA) were first conducted on the 18 Likert scale items that comprised the Global Mindset scale. Whereas Cronbach's alpha was used as an index of the internal consistency reliability of the scale, CFA factor loadings were used to index the construct validity of the scale. Construct validity (also referred to as content validity) refers to how accurately the operational measure reflects its construct.

The Global Mindset scale was subjected to internal consistency reliability tests using Cronbach's coefficient alpha estimate of reliability. When the individual survey items are sufficiently interrelated, their combination in the scale is justified because a high correlation among the items is evidence that the participant is responding consistently, thus the scale is said to have good (high) reliability. Cronbach's alpha can range from 0.00 to 1.00, and alpha's close to 0.70 or higher are acceptable in business research (Cicchetti, 1994). As Cronbach's alpha tends to underestimate the reliability of scales with fewer than six items (Charter, 2003), researchers often use the Spearman-Brown prophecy formula to adjust alpha values when the number of items is limited. Since the Global Mindset scale is comprised of subscales containing less than six items, alpha values for these subscales were estimated using the Spearman-Brown prophecy formula: $\rho^*_{xx'} = \frac{2\rho_{xx'}}{1+\rho_{xx'}}$ where $\rho^*_{xx'}$ = predicted reliability and $\rho_{xx'}$ = current reliability.

Table 1 presents the means, standard deviations, Cronbach's alphas, and factor analysis loadings for the 18-item Global Mindset scale, the Intellectual Intelligence and Cultural Intelligence scales, and the 9 related subscales. Mean scores are presented as both grand mean (on 1-5 Likert scale) and composite mean scores (sum of item ratings); standard deviations are presented in the unit of the composite mean. As shown in Table 1, the full 18-item Global Mindset scale was found to have strong internal

consistency reliability (α = 0.819) in the sample of N = 138 participants that were included in this study. Also, the Intellectual Intelligence (α = 0.768) and Cultural Intelligence (α = 0.658) scales were found to have satisfactory reliability. Reliability tests of each of the nine subscales found that five of the subscales demonstrated satisfactory reliability (with alphas approximately ≥ .66), one subscale demonstrated marginal reliability (with alpha approximately = .55), and the final three subscales demonstrated weak reliability (with alphas approximately ≤ .46). These results indicate that the 18-item instrument has a high degree of internal consistency reliability with which the survey statements measure the Global Mindset construct. However, three subscales require modification to improve their internal consistency reliability.

Table 1. Confirmatory Factor Analysis of the 18-Item Global Mindset Scale

	d ean[1]	omp. [2]	SD	Alpha [a]	Factor [c]
Global Mindset Full Scale (18 items)	**3.86**	**69.57**	**8.20**	**.819**	
Intellectual Intelligence (10 items)	**3.69**	**36.91**	**5.61**	**.768**	
Differentiation	**3.73**	**7.45**	**1.65**	**.830[b]**	
Understand economic/cultural differences impacting business		3.97	0.81		.672
Comfortable assessing risks/opportunities in global business		3.47	1.04		.854
Integration	**3.32**	**6.64**	**1.19**	**.415[b]**	
Integrate business plans cross-culturally to meet global needs		3.07	1.04		.271
Incorporate multiple points of view from other cultures		3.58	1.12		.432
Managing Uncertainty	**3.77**	**7.54**	**1.59**	**.726[b]**	
Work well with ambiguous and unstructured situations		3.64	1.03		.596
Handle decisions under uncertainty or time constraints		3.91	0.86		.753
Pattern Recognition	**3.75**	**7.50**	**1.59**	**.658[b]**	
Confident analyzing/presenting complex business issues		3.80	1.05		.505
Evaluate global business and foreign country environments		3.69	0.90		.572
Thinking Global	**3.92**	**7.83**	**1.71**	**.817[b]**	
Regularly monitor international news and world events		3.88	1.03		.688
Attempt to learn the business practices of other countries		3.94	0.93		.768
Cultural Intelligence (8 items)	**4.08**	**32.64**	**3.62**	**.658**	
Openness to Learning	**4.39**	**8.78**	**1.23**	**.708[b]**	
Enjoy traveling/meeting people from other countries/cultures		4.47	0.79		.593
Enjoy working with people from different countries/cultures		4.30	0.69		.708
Behavioral Flexibility	**3.80**	**7.59**	**1.33**	**.037[b]**	
Adjust leadership behavior in different cultural settings		3.62	1.02		.046[ns]
Communicate well in different countries/cultures		3.98	0.86		.146[ns]
Emotional Sensitivity	**3.97**	**7.94**	**1.25**	**.464[b]**	

Understand the cultures and traditions of other countries		3.93	0.82		.364
Understand influence of cultural values on business practices		4.01	0.81		.580
	4.16	**8.32**	**1.30**	**.547** [b]	
Cross-Cultural Understanding					
Cultural differences provide competitive business advantage		3.80	0.98		.320
Respect the history/traditions/culture of other countries		4.53	0.63		.786

Notes: Tests of model fit for confirmatory factor analysis (CFA): $\chi 2 = 167.148$, df = 99, p = .000; RMSEA (90% CI) = .073 (.053-.092); CFI = .897. [1]Grand mean is the normalized composite mean of 18 items where each item is measured on a 5-point Likert scale, 1 = No extent at all, 5 = Very large extent. [2]Composite mean is calculated on 18 items. [a]Cronbach's alpha reliability measure of internal consistency. [b]Adjusted alpha for a 6-item construct according to the Spearman-Brown prophecy formula: $\rho^*_{xx'} = \frac{2\rho_{xx'}}{1+\rho_{xx'}}$ where $\rho^*_{xx'}$ = predicted reliability and $\rho_{xx'}$ = current reliability. [c]Factor loading scores from CFA significant at $p < .05$ unless otherwise noted as non-significant (ns).

Validity of the Global Mindset scale was assessed by evaluating the construct validity of the 18 survey items that measured global mindset. Accordingly, confirmatory factory analysis (CFA) was conducted to obtain first-order factor loadings of the individual items loading onto each subscale, and second-order factor loadings of the subscales loading onto the Intellectual and Cultural Intelligence scales. Factor loadings from the CFA provided an estimate of the item and subscale contributions to the content measurement of the underlying construct.

The overall strength of the 18-item global mindset construct was first evaluated by CFA as an index of the overall construct validity. CFA was conducted using the *Mplus* structural equation modeling (SEM) software application. In evaluating the results of a CFA, the model fit of the structural equation model is evaluated using the ratio of the chi-square statistic to the degrees of freedom ($\chi 2$/df), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA) (Bentler, 1990; Loehlin, 1998). Models that are good representations of the data have a χ^2/df ratio of less than 2 to 1, a CFI value $\geq .90$, and a RMSEA that is less than .08. As shown in Table 1, model fit was found to be acceptable according to these indices.

After overall model fit of a construct is evaluated using SEM, researchers evaluate the factor loadings of items and subscales. For factor analysis in general, researchers often use 0.4 as the central factor and 0.25 as the lower factor criteria, and call loadings of 0.6 and above as high and loadings below 0.4 factor as low factor loadings. However, researchers also note that factor loadings must be interpreted in light of theory and not by arbitrary cutoff levels (Bryant & Yarnold, 1995). For CFA, the significance of the factor loadings is also evaluated along with the model fit indices described above.

As shown in Table 1, the results of the factor loadings of the individual Global Mindset items show that 16 of the 18 items had significant factor loadings, thus these items contribute significantly to the measurement of the subscale constructs. However, two items of the Behavioral Flexibility subscale showed no significant factor loadings (0.46, 0.146), one item in the Integration subscale had an acceptable but low factor loading (0.271), and no factor loadings were available for the Intellectual Intelligence and Cultural Intelligence subscales since the higher-order CFA model was not able to converge. Taken together, these results suggest that the 18-item Global Mindset scale had reliability concerns on three subscales (Integration, Behavioral Flexibility, and Emotional Sensitivity), and poor construct validity concerning the overall higher-order model.

As a result of the reliability and validity analysis of the 18-item Global Mindset scale, modifications were made that led to the creation of a 16-item Global Mindset scale. Table 2

presents the means (grand and composite means), standard deviations, Cronbach's alphas, and factor loadings of the 16-item Global Mindset scale.

To improve reliability and validity of the Global Mindset scale, the Intellectual Intelligence subscale was adjusted first. As noted in the CFA results, the item that showed a low factor loading (0.271) in the Integration subscale was removed from the instrument: "*Integrate business plans across cultures to meet global business needs*". The removal of this item improved reliability of the Intellectual Intelligence subscale from α = 0.768 to α = 0.803. The remaining item in the Integration subscale was combined with the two items in the Differentiation subscale to create a new subscale called Differentiation and Integration. This three-item subscale tested strong on reliability (α = 0.839). Additionally, these changes led to convergence of the higher-order CFA model in which Intellectual Intelligence demonstrated high factor loading on Global Mindset (.790), Differentiation and Integration demonstrated high factor loading on Intellectual Intelligence (1.01), and each of the three items comprising Differentiation and Integration indicated high construct/content validity (0.682, 0.837, 0.579).

In the Cultural Intelligence subscale, the item that showed a non-significant (ns) factor loading (0.046) in the Behavioral Flexibility subscale was removed from the instrument: "*Adjust leadership behavior in different cultural settings*". The removal of this item lead to improved reliability of the Cultural Intelligence subscale from α = 0.658 to α = 0.691. The remaining item in the Behavioral Flexibility subscale was combined with the two items in the Emotional Sensitivity subscale to create a new subscale called Flexibility and Sensitivity. This three-item subscale tested strong on reliability (α = 0.693) and high on construct/content validity (factor loading = 0.986).

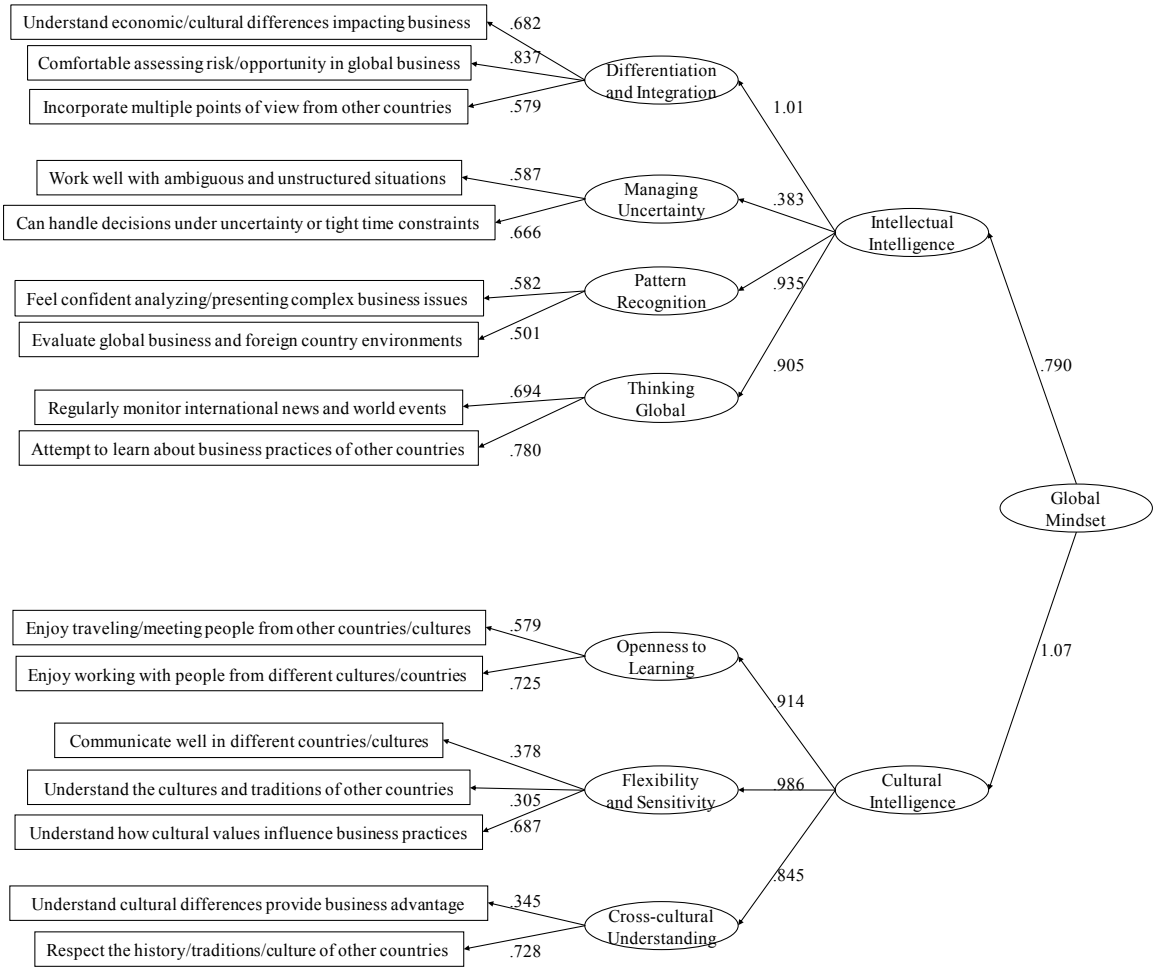
Overall, the 16-item Global Mindset scale showed better reliability and a higher level of validity than the 18-item Global Mindset scale. For reliability, the full scale alpha increased from 0.819 to 0.845. For validity, the factor loadings of the subscales and individual items were all significant at the 95% probability ($p < .05$), ranging from 0.305 to 1.07 (see Figure 2). These factor loadings indicate high construct validity (Bryant & Yarnold, 1995),with Cultural Intelligence (factor loading = 1.07) appearing to contribute slightly more to the Global Mindset scale than Intellectual Intelligence (factor loading = .790).

Table 2. Reliability and Validity of the Revised 16-Item Global Mindset Scale

	d ean[1]	mp. [2]	SD	Alpha [a]	Factor [c]
Global Mindset Full Scale (16 items)	**3.93**	**62.95**	**7.93**	**.845**	
Intellectual Intelligence (9 items)	**3.76**	**33.85**	**5.48**	**.803**	**.790**
Differentiation and Integration	**3.68**	**11.03**	**2.39**	**.839[b]**	**1.01**
Understand economic/cultural differences impacting business		3.97	0.81		.682
Comfortable assessing risks/opportunities in global business		3.47	1.04		.837
Incorporate multiple points of view from other cultures		3.58	1.12		.579
Managing Uncertainty	**3.77**	**7.54**	**1.59**	**.724[b]**	**.383**
Work well with ambiguous and unstructured situations		3.64	1.03		.587
Handle decisions under uncertainty or time constraints		3.91	0.86		.666
Pattern Recognition	**3.75**	**7.50**	**1.59**	**.653[b]**	**.935**
Confident analyzing/presenting complex business issues		3.80	1.05		.582
Evaluate global business and foreign country environments		3.69	0.90		.501
Thinking Global	**3.92**	**7.83**	**1.71**	**.817[b]**	**.905**

Regularly monitor international news and world events		3.88	1.03		.694
Attempt to learn the business practices of other countries		3.94	0.93		.780
Cultural Intelligence (7 items)	**4.15**	**29.04**	**3.33**	**.691**	**1.07**
	4.39	**8.78**	**1.23**	**.708**[b]	**.914**
Openness to Learning					
Enjoy traveling/meeting people from other countries/cultures		4.47	0.79		.579
Enjoy working with people from different countries/cultures		4.30	0.69		.725
Flexibility and Sensitivity	**3.97**	**11.91**	**1.79**	**.693**[b]	**.986**
Communicate well in different countries/cultures		3.98	0.86		.378
Understand the cultures and traditions of other countries		3.93	0.82		.305
Understand influence of cultural values on business practices		4.01	0.81		.687
Cross-Cultural Understanding	**4.16**	**8.32**	**1.30**	**.547**[b]	**.845**
Cultural differences provide competitive business advantage		3.80	0.98		.345
Respect the history/traditions/culture of other countries		4.53	0.63		.728

Notes: Tests of model fit for confirmatory factor analysis (CFA): $\chi 2 = 161.060$, df = 90, p = .000; RMSEA (90% CI) = .078 (.058-.098); CFI = .887. [1,2,a,b,c] Refer to Table 1 for descriptions.



χ^2_{90} = 160.060, p < .001, CFI = .887, RMSEA = .078

Figure 2. Second-Order Confirmatory Factor Analysis of Global Mindset Scale

RESULTS

Descriptive Statistics

The sample of 158 respondents yielded a response rate of 32.5 percent (see Table 3). While 158 participants submitted surveys, 20 of these respondents (12.7%) were excluded because of incomplete responses. As a result, all subsequent results for this study were conducted on the final sample of N = 138 participants. The final sample of 138 respondents was comprised of approximately two-thirds male (64.5%) and one-third female (31.9%). Results of chi-square tests found the unequal distribution of gender to be significant. Similarly, the distribution of age across the respondents was found to be significantly unequal according to the chi-square test. Specifically, the majority of the participants were age 47 – 59 (approximately 40% of the sample), 26.1 percent were age 36 - 46, 18.1 percent were age 26 - 35, 13 percent were older than 60, and less than 1 percent were younger than 26 years old. The unequal dispersion of gender and age in the sample suggested that these two demographic variables should be controlled for in the subsequent hypothesis tests examining the effects of demographic and organizational factors on global mindset (i.e.,

gender and age were included as covariates in the regression analyses).

Table 3. Characteristics of Respondents by Age and Gender

	Included Participants		Excluded Participants		All Participants	
	N	%	N	%	N	%
Sample	138	87.3	20	12.7	158	100.0
Gender						
Male	89	64.5**	8	40.0	97	61.4**
Female	44	31.9	6	30.0	50	31.6
No Response	5	3.6	6	30.0	11	7.0
Age						
<26	1	0.7**	0	0.0*	1	0.6**
26-35	25	18.1	2	10.0	27	17.1
36-46	36	26.1	8	40.0	44	27.9
47-59	55	39.9	3	15.0	58	36.7
>60	18	13.0	1	5.0	19	12.0
No Response	3	2.2	6	30.0	9	6.7

* $p < .05$, ** $p < .01$ *Chi-square test for equality of distribution.*
Note. Sample frequency is expressed as % of all participants; Gender and Age frequency are expressed as % within Included, Excluded or All Participants.

Hypothesis Testing

To test the effects of seven demographic variables on global mindset (H_1), inferential statistics using ANOVA are presented. Table 4 presents the results of the ANOVA tests of global mindset across each of the seven demographic factors.

Age. The lowest global mindset grand mean (3.5) was in the < 26 age group. The 26-35 and 36-46 age groups both had a grand mean of 3.9, the 47-59 age group grand mean was 4.0, and the >60 age group grand mean was 4.1. No significant difference was found on global mindset mean by age groups (p = .783). Therefore, null hypothesis H_{01a} was accepted, suggesting that the global mindset of business leaders is not influenced by age. Nevertheless, the data suggest a linear trend in which global mindset increases across age groups, showing increased global mindsets with older age groups.

Gender. Females had a slightly higher global mindset mean (grand mean = 4.0) compared to that of the males (grand mean=3.9). However, the ANOVA test found no significant difference in global mindset mean scores relative to gender ($F_{(1,122)} = 1.095$, $p = 0.297$). Based on the results, null hypothesis H_{01b} was accepted, suggesting that the leaders' global mindset is not influenced significantly by gender.

Position. The highest global mindset mean score was found at the VP level (grand mean = 4.3, followed by CEO (grand mean = 4.2), Owner/President (grand mean = 4.1), CIO (grand mean = 4.1), Management Consultant (grand mean = 4.1), Marketing Executive (grand mean = 3.9), and Director (grand mean = 3.9). The lowest global mindset mean score was at the Assistant Manager position (grand mean =3.5). The ANOVA test found no significant difference in global mindset mean scores according to position in the firm ($F_{(13, 111)} = 1.404$, $p = 0.169$). Therefore, null hypothesis H_{01c} was accepted, suggesting that the leaders' global mindset is not influenced significantly by position.

Number of countries worked in/conducted business with. The lowest global mindset mean was found in the 1-2 countries worked in/conducted business with category (grand mean = 3.7). The 3-5 countries grand mean was 3.8, the 6-9 countries grand mean was

3.9, the 10-20 countries grand mean was 4.1, and the 21-100 countries worked in/conducted business with category grand mean was 4.3. Significant differences were found in global mindset mean scores across all categories of number of countries worked in/conducted business with ($F_{(4,121)}$ =6.510, $p < 0.001$). This suggests that global mindset is significantly affected by the number of countries worked in/conducted business with. Therefore, null hypothesis H_{01d} was rejected and the alternative research hypothesis was accepted, implying that the number of countries worked in/conducted business with significantly affects the leaders' global mindset. Furthermore, the linear trend found in the global mindset mean scores suggests that the greater the number of countries worked in/conducted business with, the higher the leaders' global mindset score.

Number of foreign languages spoken. The lowest global mindset mean score was in the "no foreign language spoken" category (grand mean = 3.8). Interestingly, the one foreign language spoken category had a higher global mindset mean (grand mean = 4.0) compared with the two foreign languages spoken category (grand mean = 3.9). The highest mean score was found in the 3 or more foreign languages spoken category (grand mean = 4.2). The ANOVA test found a significant difference in global mindset mean scores by the number of foreign languages spoken across all categories ($F_{(3, 121)}$ =3.358, $p = 0.021$). Based on this, null hypothesis H_{01e} was rejected and the alternative research hypothesis was accepted, suggesting that when leaders speak more foreign languages, their global mindset is likely to be higher.

Raised by/live in a bilingual/multi-ethnic family. The global mindset mean of the respondents who were not raised by/live in a bilingual/multi-ethnic family was lower (grand mean = 3.8) than the mean of those who were raised by/live in a bilingual/multi-ethnic family (grand mean = 4.1). According to the ANOVA test, a significant difference was found between global mindset mean scores of those who were raised by/live in a bilingual/multi-cultural family and those who were not ($F_{(1, 124)}$ = 8.619, $p = 0.004$). The findings indicate that bilingual or multi-ethnic experiences are likely to increase the leaders' global mindset significantly. Based on the results, null hypothesis H_{01f} was rejected, and the alternative research hypothesis was accepted, implying that being raised by a bilingual/multi-ethnic family significantly affects the leaders' global mindset.

Location/country of employment. The lowest global mindset means were found in Africa and the US (both showing grand mean = 3.9). Europe and South America both had grand means = 4.0, the Caribbean and Middle East both had grand means = 4.1, Asia, Canada, and Oceania, all had grand means = 4.2, the highest global mindset means. The ANOVA tests found a significant difference in global mindset mean scores between the United States and "all other countries" ($F_{(1, 122)}$=7.823, $p = 0.006$), but not across all countries/location of employment ($F_{(7, 116)}$= 3.033, $p = 0.084$).

As shown in Table 4, the ANOVA tests found significant differences in global mindset mean scores on four demographic factors: number of countries worked in/conducted business with, number of foreign languages spoken, raised by/live in a bilingual/multi-ethnic family, and location/country of employment. The results suggest that these demographic factors significantly affect the leader's global mindset.

Table 4. Error! No text of specified style in document.**.** Results of ANOVA of Global Mindset on Seven Demographic Factors

Demographic Factor	F value	Probability	Significance Level	Hypothesis
Age	$F_{(4,121)}$ = .436	p = 0.783	Not Significant	H_{01a} Accepted
Gender	$F_{(1,122)}$ = 1.095	p = 0.297	Not Significant	H_{01b} Accepted
Position	$F_{(13,111)}$ =1.404	p = 0.169	Not Significant	H_{01c} Accepted

No. of countries worked in/conducted business with	$F_{(4,121)}$ =6.510	p = 0.000	Significant	H_{01d} Rejected
No. of foreign languages spoken	$F_{(3, 121)}$ =3.358	p = 0.021	Significant	H_{01e} Rejected
Raised by/live in bilingual/ multi-ethnic family	$F_{(1, 124}$ = 8.619	p = 0.004	Significant	H_{01f} Rejected
Location/Country of employment	$F_{(1, 122)}$=7.823	p = 0.006	Significant	H_{01g} Rejected

To test the effects of six organizational variables on global mindset (H_2), inferential statistics using ANOVA are presented. Table 5 presents the results of the ANOVA tests of global mindset across each of the six organizational factors.

Product Line.

The lowest global mindset grand means (3.8) were found in Manufacturing, Professional Services, and Automobiles. Management Consulting and Training/Education both had grand means = 3.9, Healthcare and IT/Software both had grand means = 4.0, and Engineering, Chemicals, and R&D all had grand means = 4.1. The highest global mindset means were in Banking & Financial Services, and Food & Beverage (both showing grand means = 4.3). The ANOVA indicated no significant difference on global mindset mean scores by product line ($F_{(13,112)}$ = 0.590, *p = 0.858*). Based on this, null hypothesis H_{02a} was accepted, suggesting that product line does not have a significant effect on the leaders' global mindset. Although no significant effect of product line on global mindset was found, this study provided quantitative measures of global mindset in 14 different product lines, which is a contribution to existing research.

Total Number of employees. The lowest global mindset mean (grand mean = 3.7) was found in the 501-1,000 employees category. The 1,001-10,0000 employees category grand mean = 3.8. The >10,000 total employees category had a grand mean = 3.9; and the highest global mindset mean (grand mean = 4.0) was found in the < 500 total employees category. According to the results, despite the small size of the organization, leaders at firms with less than 500 employees were found to have the highest global mindset. The ANOVA test found no significant difference in global mindset mean scores relative to the firm's total number of employees ($F_{(3,122)}$ = 1.938, *p = 0.127*). Based on this, null hypothesis H_{02b} was accepted, suggesting that the total number of employees (size of the organization) does not have a significant effect on the leader's global mindset and that the leaders' mindset may not be affected by the small size of the organization.

Number of countries of operations. The lowest global mindset grand mean (3.7) was in the 6-20 countries of operations category. The 1-2 and 3-5 countries of operations both had grand means = 3.9.The highest global mindset means (grand means = 4.0) were in the 21-50 and 51-200 countries of operations categories. The ANOVA test found no significant difference in global mindset mean scores by the number of countries of operations ($F_{(4,122)}$ = 1.025, *p = 0.397*). Based on the results of the ANOVA test, null hypothesis H_{02c} was accepted, suggesting that the number of countries of operations does not affect the leaders' global mindset significantly.

Percentage of employees working overseas. The lowest global mindset mean (3.8) was in the < 10 percent of employees working overseas category. The 26 –50 percent of employees working overseas grand mean = 3.9, the 10-25 percent of employees working overseas showed a grand mean = 4.0, and the > 50 percent of employees working overseas category had a grand mean = 4.2. A significant difference was found in global mindset mean scores across all categories of percentage of employees working overseas ($F_{(3, 119)}$ =2.801, *p =0.043).* This suggests that organizations operating with a high percentage of employees working overseas are likely to have leaders with high global mindset capabilities. Based on the results, null hypothesis H_{02d} was rejected, and

the related research hypothesis was accepted, implying that the leaders' global mindset is significantly affected by the percentage of employees working overseas.

Percentage of revenue from foreign operations. The lowest global mindset mean was in the < 10 percent of revenue from foreign operations category (grand mean = 3.8). The 10 - 25 percent and 26 - 50 percent revenue from foreign operations both had grand means = 4.0. The highest global mindset mean was found in the > 50 percent of revenue from foreign operations category (grand mean = 4.1). A significant difference was found in global mindset means across all categories of percentage of revenue from foreign operations ($F_{(3,115)} = 3.198$, $p = 0.026$). This suggests that as firms increase the percentage of revenue from foreign operations, the leaders' global mindset is likely to increase. Based on the results, null hypothesis H_{02e} was rejected, and the alternative research hypothesis was accepted, suggesting that the leaders' global mindset is significantly affected by the percentage of revenue from foreign operations.

Location of company's headquarters. The lowest global mindset means were found in Africa and the United States (grand means = 3.9). Europe had a grand mean = 4.0, and Asia and South America both had grand means = 4.1. The highest global mindset means were found in Canada, the Middle East, and Oceania (grand means = 4.2). All countries/regions outside of the US were combined, and the grand mean = 4.0. No significant difference was found in global mindset means by location/country of company's headquarters across all locations/countries of company's headquarters ($F_{(7,117)} = 0.593$, $p = 0.760$) and between the US and "all other countries" ($F_{(1,123)} = 3.033$, $p = 0.084$). According to this, the leader's global mindset does not seem to be significantly affected by where the company runs its operations from. Based on the results, null hypothesis H_{02f} was accepted, suggesting that location/country of company's headquarters does not have a significant effect on the leader's global mindset.

As shown in Table 5, no significant differences were found in global mindset by product line, total number of employees, number of countries of operations, and location/country of company's headquarters. However, the study found significant differences in the leaders' global mindset by two organizational factors: percentage of employees working overseas and percentage of revenue generated from foreign operations, suggesting that these two organizational factors significantly affect the leaders' global mindset.

Table 5. Results of ANOVA of Global Mindset and Organizational Factors

Organizational Factor	F Value	Probability	Significance Level	Hypothesis
Product Line	$F_{(13,112)} = 0.590$	p = 0.858	Not Significant	H_{02a} Accepted
Total number of employees	$F_{((3,122)} = 1.938$	p = 0.127	Not Significant	H_{02b} Accepted
No. of countries of operations	$F(_{4, 122)} = 1.025$	p = 0.397	Not Significant	H_{02c} Accepted
% of employees working overseas	$F_{(3, 119)} = 2.801$	p = 0.043	Significant	H_{02d} Rejected
% of revenue from foreign operations	$F_{(3, 115)} = 3.198$	p = 0.026	Significant	H_{02e} Rejected
Location/Country of company headquarters	$F_{(7,117)} = 0.593$	p = 0.760	Not Significant	H_{02f} Accepted

Regression of Global Mindset on Demographic and Organizational Factors

To further examine the relationship between global mindset and demographic and organizational factors, regression analyses were conducted with global mindset as the dependent variable regressed on the seven demographic and six organizational factors as independent variables. Two sets of regressions were conducted: (1) Global mindset was regressed on each independent variable one at a time in a simultaneous regression (see Table 6), and (2) Global mindset was regressed on each independent variable with significant predictors being added to the regression in a stepwise fashion until the best model of significant predictors was determined (see Table 7). In all regressions, the composite global mindset score was used, and age and gender were included as covariates.

The simultaneous regression analysis of the seven demographic factors indicated that four demographic factors were significant predictors of global mindset: number of countries worked in/conducted business with, number of foreign languages spoken, raised by/live in a bilingual/multi-ethnic family, and location of employment outside of USA. Specifically, the number of countries worked in/conducted business with category was found to be a significant predictor of global mindset (β=2.454, $p < 0.001$) suggesting that the more countries the leader worked in, the higher the leader's global mindset. Another significant predictor of global mindset that was found is the number of foreign languages spoken (β =1.982, $p= 0.002$) indicating that the more foreign languages spoken, the higher the leader's global mindset. The third significant predictor of global mindset that was found is raised by/live-in a bilingual/multi-ethnic family (β = 4.571, $p = 0.002$), suggesting that leaders who are raised by, or who live-in a bilingual/multi-ethnic family are likely to have a high global mindset. Finally, location/country of employment was found to be a significant predictor of global mindset (β = 4.964, $p = 0.001$), implying that leaders working outside the USA are likely to have a high global mindset.

The simultaneous regression analysis of the six organizational factors found three organizational factors to be significant predictors of global mindset: percentage of employees working overseas, percentage of revenue from foreign operations, and location of company's headquarters outside the USA. Based on the results of the regression analysis, the larger the percentage of employees working overseas, the higher the leaders' predicted global mindset (β =1.537, $p = 0.010$). The regression also found that the larger the percentage of revenue from foreign operations, the higher the leader's global mindset (β = 1.821, $p=0.002$). The third significant predictor among the organizational factors found in the regression analysis is location/country of company's headquarters outside of USA (β = 3.220, $p = 0.033$). The results suggest that leaders working at companies that have headquarters outside of the USA are predicted to have a high global mindset. This finding was not supported by the ANOVA test results which did not include age and gender as covariates ($p = 0.084$).

Results of the simultaneous regressions extend existing research by identifying four demographic and three organizational factors as significant predictors of global mindset. This provides additional insights into understanding the relationships between global mindset and demographic and organizational factors, suggesting that the predictors found significant in this study may be used to influence the leaders' global mindset significantly.

Table 6. Simultaneous Regression of Global Mindset on Demographic and Organizational Factors

	β	*SE*	*p*
Simultaneous analysis of each demographic predictor entered with age & gender as covariates[1]			
Age	0.758	0.736	.305
Gender (Female)	1.577	1.507	.297
Number of countries worked in/conducted business with	**2.454**	**0.494**	**.000***
Number of foreign languages spoken	**1.982**	**0.633**	**.002**
Raised by/live in a bilingual/multi-ethnic family	**4.571**	**1.433**	**.002**
Location of employment outside of USA	**4.964**	**1.490**	**.001**
Simultaneous analysis of each organizational predictor entered with age & gender as covariates[1]			
Age	0.758	0.736	.305
Gender (Female)	1.577	1.507	.297
Total number of employees	-0.355	0.555	.523
Number of countries of operation	0.618	0.478	.198
Percentage of employees overseas	**1.537**	**0.588**	**.010**
Percentage of revenue from overseas	**1.821**	**0.576**	**.002**
Location of company's headquarters outside of USA	**3.220**	**1.489**	**.033**

Note: Beta coefficients are unstandardized; SE = standard error of regression coefficient; predictors with significant p values are in bold font.
[1]Global mindset regressed on each predictor alone + age + gender.
**p=0.000* equals *p values < 0.00*

To identify the best predictors of global mindset, stepwise regressions were conducted with the composite global mindset score regressed on the 13 demographic and organizational factors, taking the most significant predictor first followed by all other predictors at $p < 0.05$. According to the stepwise regression analysis without age and gender as covariates, three demographic factors (number of countries worked in/conducted business with, raised by/live in a bilingual/multi-ethnic family, and number of foreign languages spoken) and one organizational factor (percentage of employees working overseas) were found to be significant predictors of global mindset. Based on these results, 30.2 percent of the variation in global mindset may be accounted for by these four predictors (Adjusted R square = 0.302, $F_{(4, 109)} = 13.20$, $p < 0.001$), implying that global mindset is expected to increase significantly when the predictors' values increase.

To verify that the same four predictors remained significant with age and gender included as covariates, a simultaneous regression was conducted with covariates. The simultaneous regression with age and gender as covariates found that the percentage of employees working overseas was no longer a significant predictor of global mindset ($\beta = 1.018$, $p = 0.057$). However, the three demographic factors remained significant predictors of global mindset: number of countries worked in/conducted business with ($\beta = 2.182$, $p < 0.001$), raised in bilingual/multi-ethnic family ($\beta = 2.869$, $p = 0.040$), and number of foreign languages spoken ($\beta = 1.399$, $p = 0.026$). Based on these results, 28.7 percent of the variation in the leaders' global mindset may be accounted for by these three predictors (Adjusted R square = 0.287, $F_{(6, 111)} = 8.852$, $p < 0.001$), implying that global mindset is expected to increase significantly as the predictors increase.

Table 7. Stepwise Regression of Global Mindset on Demographic and Organizational Factors

	β	*SE*	*p*
Stepwise method of analysis:			
Adjusted R square = .302; $F_{4,109}$ = 13.20, $p < .001$[1]			
Number of countries worked in/conducted business with	**2.223**	**0.457**	**.000***
Raised by/live in a bilingual/multi-ethnic family	**3.028**	**1.375**	**.030**
Percentage of employees overseas	**1.071**	**0.524**	**.043**
Number of foreign languages spoken	**1.222**	**0.599**	**.044**
Predictors from stepwise analysis with age & gender as covariates:			
Adjusted R square = .287; $F_{6,111}$ = 8.852, $p < .001$[2]			
Age	0.487	0.687	.479
Gender (Female)	0.885	1.298	.497
Number of countries worked in/conducted business with	**2.182**	**0.469**	**.000**
Raised by/live in a bilingual/multi-ethnic family	**2.869**	**1.383**	**.040**
Percentage of employees overseas	1.018	0.528	.057
Number of foreign languages spoken	**1.399**	**0.618**	**.026**

*Note: Beta coefficients are unstandardized; SE = standard error of regression coefficient; /predictors with significant p values are in bold font.*p=0.000 equals to p values <0.001*
[1]In the stepwise regression, global mindset is regressed on the most significant predictor first followed by all other predictors < .05. [2]Global mindset regressed on age + gender + countries worked + raised multi-ethnic + employees overseas + foreign languages.

Figures 3 - 6 show the regression of global mindset on each of the four demographic and organizational factors that were found to be significant predictors of global mindset. Specifically, each of these figures presents the observed composite global mindset scores across each categorical value of the respective predictor, and the corresponding linear regression reference line. For each of the reference lines, age and gender were not included as covariates.

As shown in Figure 3, a significant increase is expected in global mindset when the percentage of employees working overseas increases. Figure 4 shows a direct, positive relationship between global mindset and the number of countries worked in/conducted business with. Accordingly, global mindset is expected to increase significantly when the number of countries worked in/conducted business with increases. Figure 5 shows a positive relationship between global mindset and the number of foreign languages spoken, suggesting a significant increase in global mindset when the number of foreign languages spoken increases. Figure 6 shows a positive relationship between global mindset and raised by/live in a bilingual/multi-ethnic family, implying a significant increase in global mindset when the leader is raised by/live in a bilingual/multi-ethnic family.

Figure 7 shows the curve fit of global mindset regressed with age and gender as covariates on the demographic and organizational factors that were found to significantly predict global mindset according to stepwise regression: (1) percentage of employees working overseas, (2) number of countries worked in/conducted business with, (3) number of foreign languages spoken, and (4) raised in a bilingual multi-ethnic family. Based on the regression line, Y = 4.58 X + 63, the leaders' global mindset is predicted to increase 4.58 times with each standardized unit change in the composite predictor comprised of the number of countries worked in/conducted

business with, number of foreign languages spoken, raised by/live in a bilingual-ethnic family, and percent employees overseas.

In summary, the stepwise regression of global mindset on demographic and organizational factors found that by controlling for age and gender as covariates, three demographic factors noted above are significant predictors of global mindset, and one organizational factor is marginally significant as a predictor of global mindset. The findings of the regression analyses provide additional support to the findings of the ANOVA tests. Overall, the inferential statistics provide statistical support for a combined set of four demographic and organizational factors that may contribute to increasing the leaders' global mindset.

Figure 3: Curve Fit of Global Mindset Regressed on Employees Working Overseas

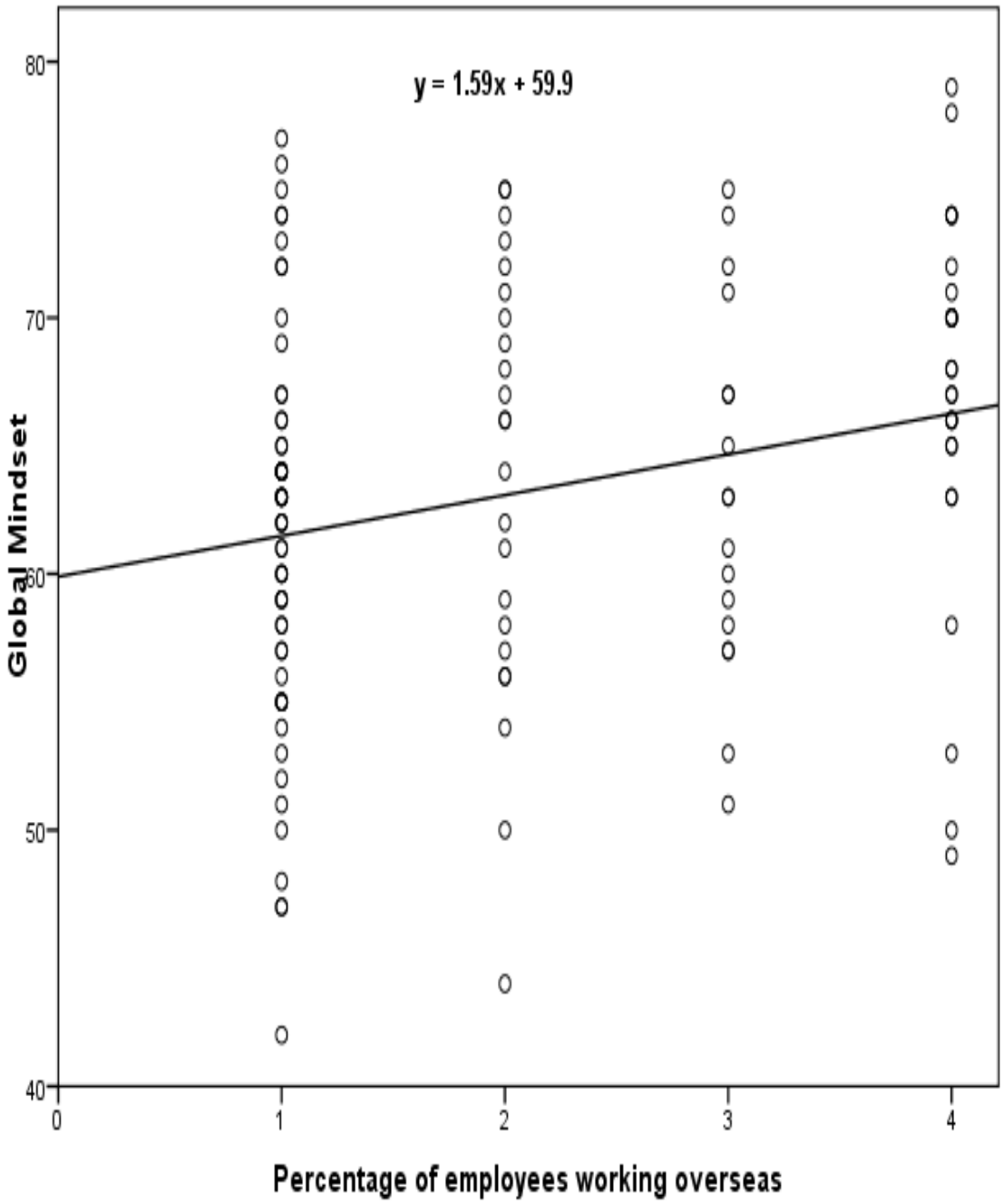


Figure 4: Curve Fit of Global Mindset Regressed on Number of Countries Worked in/ Conducted business with

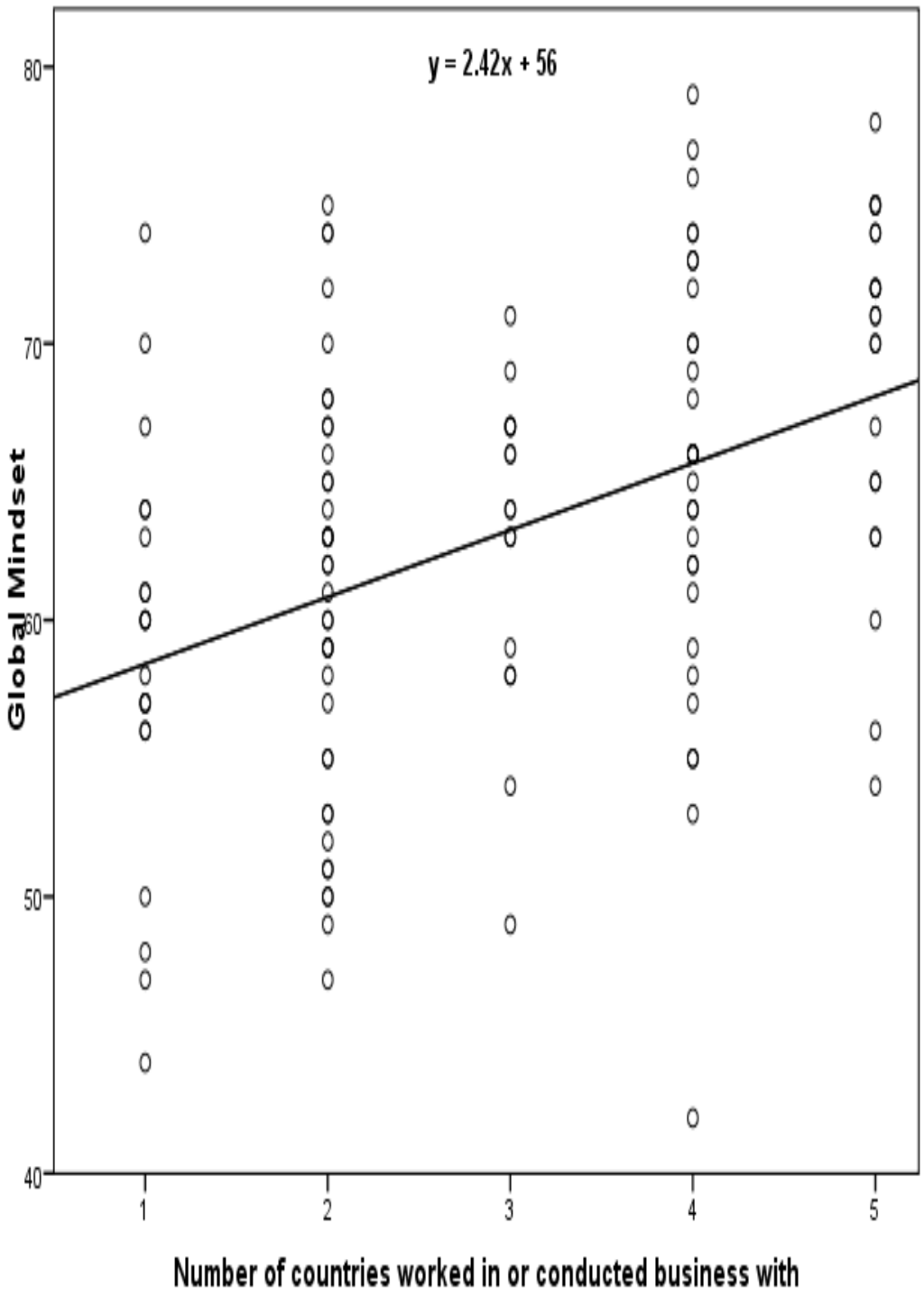


Figure 5: ***Curve Fit of Global Mindset Regressed on Foreign Languages Spoken/Used Conversationally***

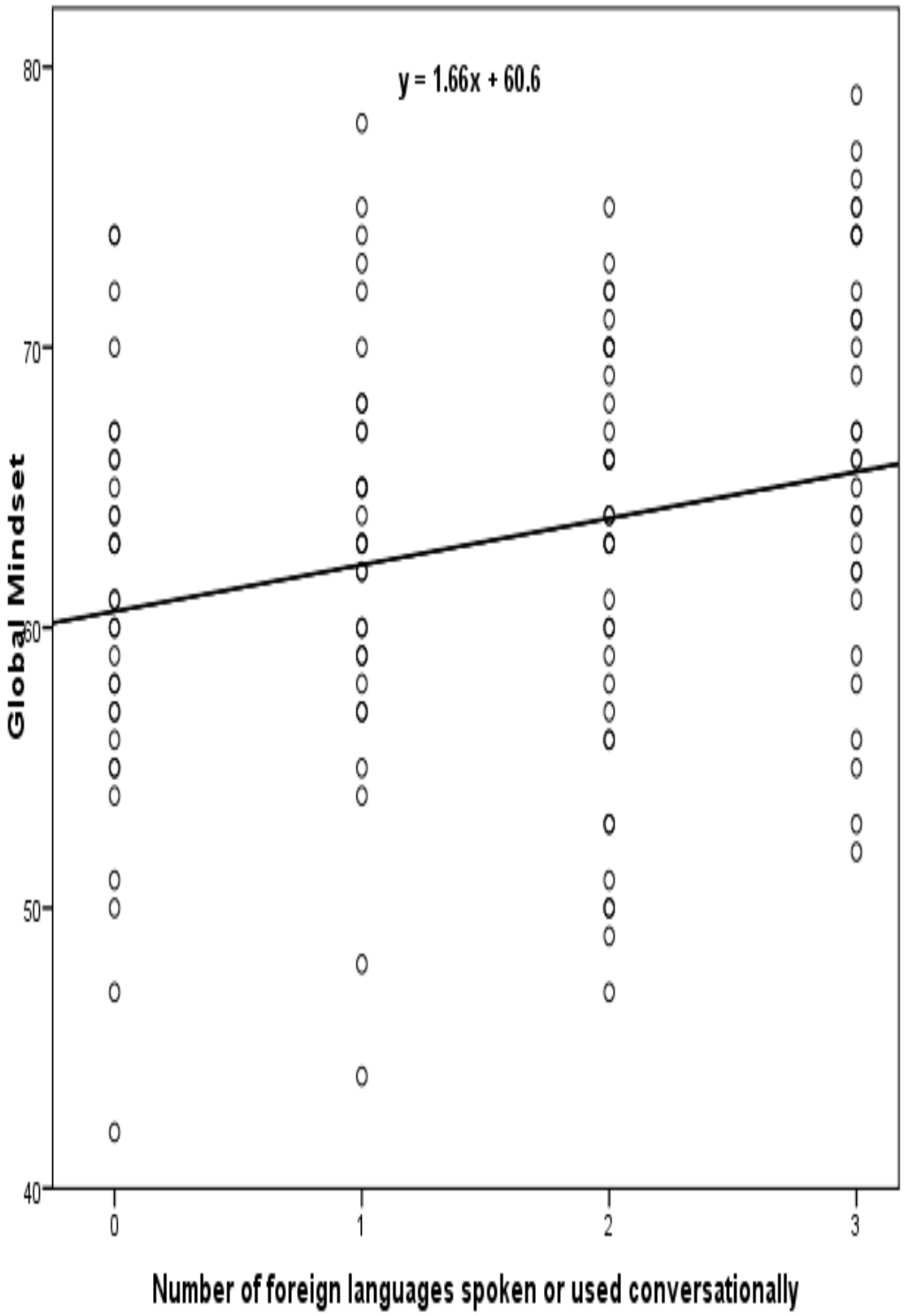


Figure 6. Curve Fit of Global Mindset Regressed on Raised by/Live-in a Multi-Ethnic Family

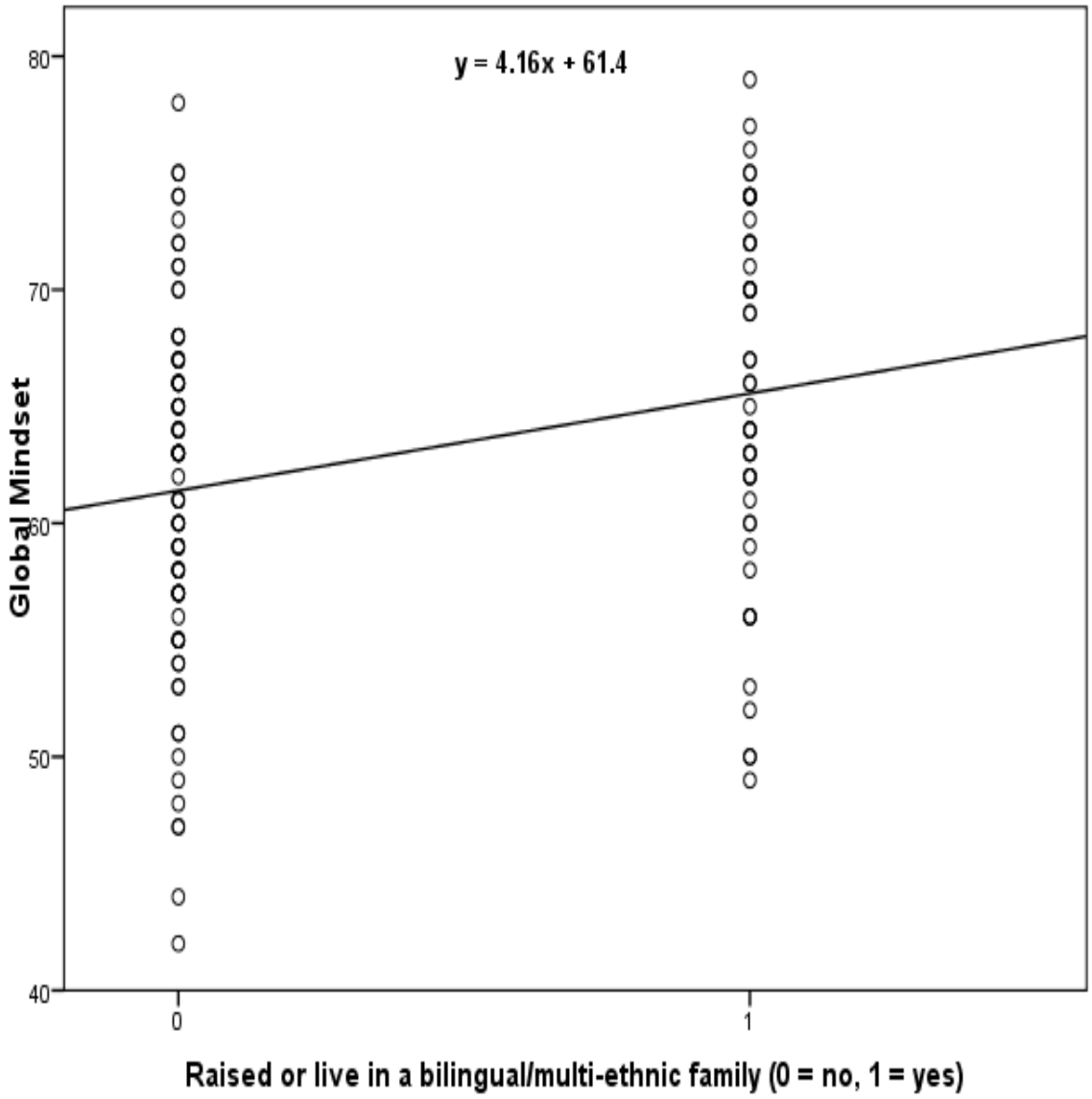
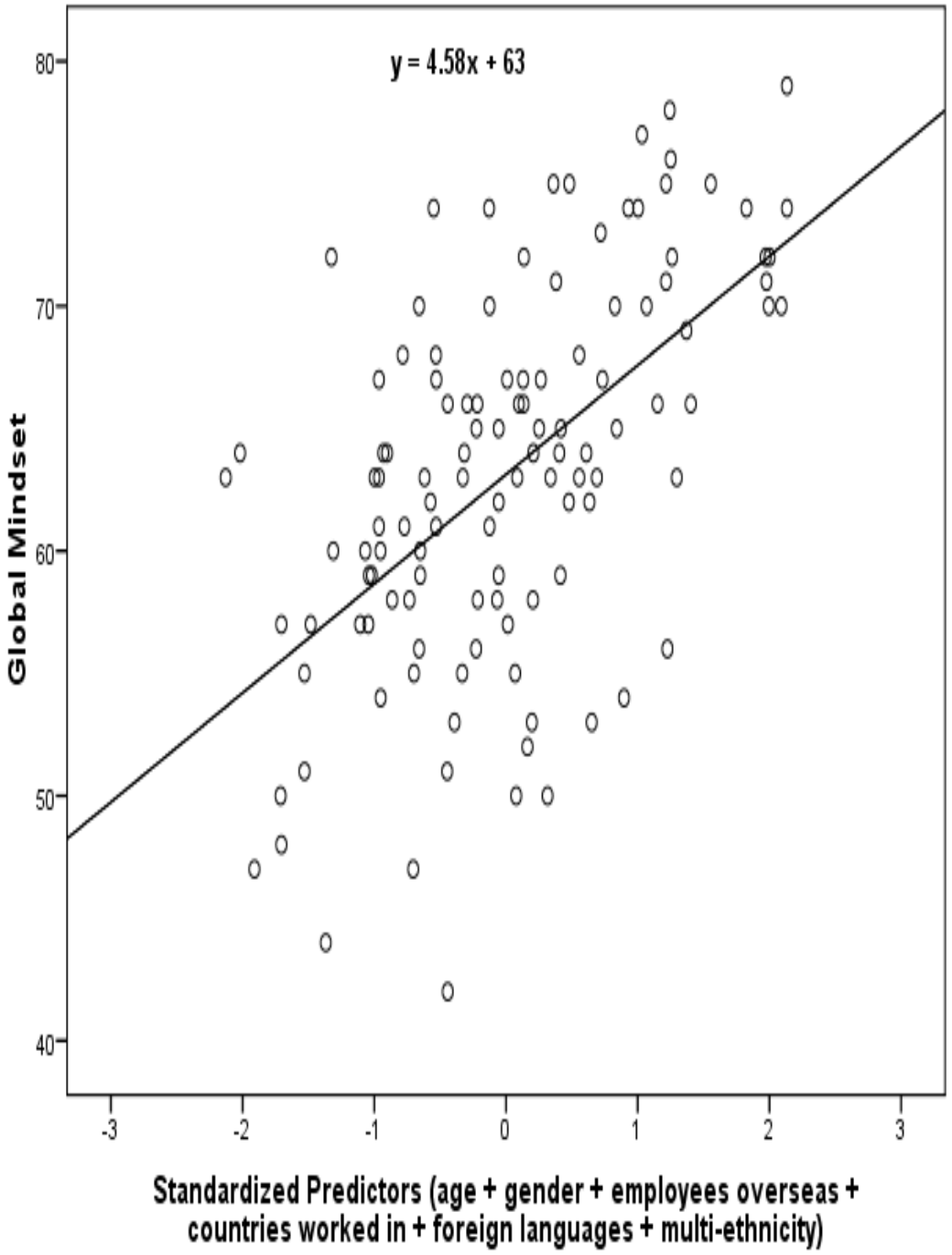


Figure 7. Curve Fit of Global Mindset Regressed on Age + Gender + One Organizational and Three Demographic Factors



DISCUSSION

The findings of this study provide major contributions regarding the quantitative measurement of global mindset, the effects of demographic and organizational factors on global mindset, and the identification of the best predictors of global mindset. Overall, no significant relationships were found between the leaders' global mindset and their age, gender, or position in the firm. Additionally, no significant relationships were found between the leaders' global mindset and product line, total number of employees, number of countries the firm operates in/conducts business with, or location of company's headquarters. Significant relationships were found between global mindset and the number of countries worked in or conducted business with, the number of foreign languages spoken, whether the leader was raised by or lived in a bilingual/multiethnic family, and the location or country of employment. Significant relationships were also found between global mindset and percent of employees working overseas, and percent of revenue from foreign operations.

While no previous studies have been conducted on quantifying global mindset, this study is unique in that it provides operational measures of intellectual intelligence and cultural intelligence, the two main dimensions that were used to measure the leaders' global mindset. Specifically, a 16-item Global Mindset scale was developed in which 9 items comprise the Intellectual Intelligence scale, and 7 items comprise the Cultural Intelligence scale. The Intellectual Intelligence scale is further comprised of 4 subscales: Differentiation and Integration, Managing Uncertainty, Pattern Recognition, and Thinking Globally; the Cultural Intelligence scale is further comprised of 3 subscales: Openness to Learning, Flexibility and Sensitivity, and Cross-Cultural Understanding. Reliability and validity analyses showed the Global Mindset scale demonstrated good internal consistency and construct validity.

The results of this study complement previous research on the effects of demographic and organizational factors on global mindset noting that living and working abroad, international assignments, and speaking a foreign language are likely to influence global mindset positively (Clapp-Smith, 2009; Dalton et al., 2002; Kjar, 2003). The results of the ANOVA tests show similarities to Javidan et al. (2009), indicating that leaders older than 60 years old seem to have the highest global mindset. However, the results deviate from Javidan in that the youngest leaders had the lowest global mindset. Although, there was no significant effect on global mindset by age, the findings show a linear trend indicating that leaders with older age are likely to have a higher global mindset. Additionally, no significant difference was found in global mindset mean scores by gender; however, the findings are similar to previous studies suggesting that females seem to have a somewhat higher global mindset than males (Alon & Higgins, 2005; Conger & Riggio, 2007; Javidan et al., 2006; Sheridan, 2005). Future studies may build on the Global Mindset instrument used in this study to further examine the effects of age and gender on global mindset.

In relation to position, although Murtha et al. (1998) and Ransom (2007) examined global mindset by managerial functions in relation to corporate strategy, the functional categories examined in those studies were different from the positions examined in this study. No previous study has examined the quantitative relationship between global mindset and senior leadership and business executive positions. Therefore, this study provides new insights on the global mindset of senior business leaders although the small sample size suggests future studies may expand on examining the relationships between global mindset and position using large samples comprised of more varying positions.

One of the contributions of this study is that it provides quantitative measures of the effect of international work experience on the leaders' global mindset. Overall, the results support previous studies noting the importance of speaking foreign languages, working in

foreign countries, experiencing and living in a bilingual/multi-ethnic environment, and the influence of family on global mindset (Kjar, 2003; McCall & Hollenbeck, 2002). In providing statistical support for the relationship between global mindset and living in a bilingual/multi-ethnic family, this study suggests that these experiences are likely to significantly increase the leaders' global mindset. Thus, leaders who work in countries/regions outside the US are likely to have a significantly higher global mindset than leaders who work in the US. This finding may be related to the experiences gained by working and living in another country, such as exposing leaders to foreign cultures and languages, and providing opportunities to learn how to adapt to different countries. However, it is important to note that the location of employment does not necessarily represent the leaders' nationality, i.e., those reporting their employment in the US may be foreigners and those reporting "all other countries" may be Americans employed overseas. Although this study did not examine the relationship between nationality and global mindset, future research may expand on this further and may clarify whether global mindset is affected by how global an organization is.

This study provides new insights into understanding the effects of location/country of employment on global mindset. While previous research has noted that international job experiences influence global leaders (Leslie et al., 2003), no previous studies have reported differences in global mindset based on location/country of employment. By using a larger sample, future research may expand on the relationship between specific country differences and possible causes of the differences in global mindset by location/country of employment. Also, future research may expand on examining the effects of international work experience on global mindset by duration and length of time spent overseas.

Regarding the relationship between global mindset and number of employees, the results we found that the highest global mindset mean was in the < 500 total employee category suggests that working at small organizations does not necessarily prohibit leaders from having a high global mindset. On the contrary, working at small global organizations may allow leaders opportunities for developing a high global mindset. This supports previous research on the concept of "born-global" firms that, despite their small size, often use global networks to expand their markets globally by identifying global opportunities and responding to differences in global business rapidly (Mendenhall et al., 2008; Pedersen & Connerley, 2005). Furthermore, this study found that leaders at firms with > 10,000 employees seem to have the second highest global mindset. This supports Murtha et al. (1998) and Ransom (2007) who note that in complex multinational corporations with over 10,000 employees, leaders are likely to have high global mindsets. Jeannet (2000) and Murtha et al. note that corporations that employ a large number of employees and are involved in global business are likely to have leaders with high global mindset who help develop global strategy and global capabilities with local responsiveness. The results imply that organizational size is likely to influence global mindset to some extent and that leadership characteristics may be more important than organizational size.

The study found no significant difference in global mindset by the number of countries of operations, which suggest that the leaders' global mindset is not likely to be significantly affected by the number of countries the firm operates in, or the number of countries the firm conducts business with. This seems to support previous research noting that even though firms may operate in numerous countries, the leaders of these firms may not operate with a high global mindset (Jeannet, 2000). Instead, studies show that organizations that operate across countries may use one of the following strategies: ethnocentric (domestic/national); polycentric (multi-country differentiation); regiocentric (region-based integration and coordination); or geocentric (global), also called transnational strategy (Bartlett & Ghoshal, 1998). As Calof and Beamish (1994) and Bartlett et al. (2008) note, firms that use a geocentric (global) strategy, and that facilitate a global systems approach in decision-making and organizational alignment

of leadership, are likely to have leaders with high global mindset capabilities. Thus, the relationship between different organizational strategies (ethnocentric, polycentric, regiocentric, and geocentric) and the leaders' global mindset appears to be more relevant than the relationship between global mindset and the number of countries of operations.

Even though no significant effect was found on global mindset by location/country of headquarters, differences were found in the leaders' global mindset by country/region, providing insights on the leaders' global mindset in nine world regions/countries: Africa, Asia, Canada, Caribbean, Europe, Middle East, Oceania, South America, and the United States. The results suggest that global mindset does not seem to be influenced by where the company runs its operations from. This supports the strategic perspective on global mindset (Hennan & Pelmutter, 1979) that holds that global mindset is most likely achieved in organizations that view themselves as part of an organic worldwide entity that exercises a global vision with global coordination. Future studies using larger samples may help to clarify the relationship between country/location of headquarters and global mindset.

Furthermore, the findings imply that it is not the size of the firm (total number of employees), but the size (percentage) of the employees working overseas that is likely to affect the leaders' global mindset significantly. Similarly, whereas the number of countries of operations do not seem to affect global mindset significantly, the percentage of revenue from foreign operations is likely to affect the leaders' global mindset significantly. A detailed discussion on this is presented below.

The study supports the notion that organizations operating with a high percentage of employees overseas need strong integration and system-network capabilities that are critical components of global mindset. However, it is important to note that the type of organizational strategy may also influence the relationship between global mindset and percentage of employees working overseas. Specifically, the coordination and integration strategies used by ethnocentric and polycentric organizations are different from the strategies applied by regiocentric and geocentric (global) organizations. Research may expand on examining the effects of organizational strategy and other factors on global mindset.

The study is in agreement with Bartlett et al. (2008), suggesting that organizations with a high dependence on overseas operations seem to have leaders who have an ability to integrate and coordinate global operations effectively across many countries and world regions. According to the results, as firms increase their dependence on revenue generated from foreign operations, leaders seem to have a significantly higher global mindset. This supports previous studies noting that firms with great dependence on their revenue from foreign operations are likely to have leaders with high global mindset that may help understand political, economic, social, and cultural differences and their impact on business (Govindarajan & Gupta, 2002; House et al., 2002; Mendenhall et al., 2008). This may be related to the firm's capability, implying that to generate a large percentage of revenue from foreign operations, leaders are likely to have high global mindset that helps them to work effectively with people across different cultures, countries, political, economic, and social systems. Considering that there has been no previous research testing the effect of percentage of revenue from foreign operations on the leaders' global mindset, this study extends previous research.

The qualitative findings support the quantitative findings, suggesting that the organization and firm environment are likely to influence the leaders' global mindset. The study is in agreement with previous studies that examined business strategy, global mindset, and organizational development (Adler et al., 1989; Hennan & Pelmutter, 1979). For example, Bartlett et al. (2008) hold that firm's size, location, and degree of international operations are likely to influence leadership practices and business strategy. However, the authors do not provide empirical support for their study. It is important to note that depending on the operational measure of the degree of internationalization of the firm (percentage of employees working overseas, number of

countries of operations, percentage of revenue from overseas, total number of employees), the findings show different results; therefore each organizational factor must be carefully examined for its effect on global mindset. This study expands previous research on transnational management and leadership practices in global business as it provides statistical evidence on the effect of six organizational factors on global mindset.

IMPLICATIONS

Leadership development programs designed to increase global mindset must be continuous and should offer frequent and on-going feedback with opportunities for experiencing differences in leadership practices in a global environment. Leadership development for short- and medium-term may include lectures, speakers, formal classes, business seminars, case studies, books/films, and self-study of other countries' political, economic, social, and cultural environments and their implications to business, cultural briefings, global networks/exchanges, global task force/project teams, and international trips. The short-term training programs may be used to create awareness and understanding of differences in global business environments.

Medium range leadership development may include planned field experiences, global business simulations, global assessment exercises, short-term (1-2 weeks) and medium-term (1-6 months) international assignments/business travel, executive coaching and mentoring, role playing, case studies, foreign language training, and cultural assimilation training that includes contrast, confrontation, and replacement of established values and behavior. Simulation and role-playing exercises allow participants to compare and evaluate differences in their beliefs, attitudes, cultural norms, and leadership practices relative to that of other countries and cultures. Global assessment exercises may be used to incorporate self-reflection of leadership behavior and cultural understanding exercises in relation to global business tasks and environments. Planned field experiences offer opportunities for visiting international organizations and global company sites, where participants can gain experience by talking to global executives and observe leadership practices in global operations first-hand.

The highest potential of leadership development to increase global mindset may consist of long-term immersion experiences that offer a high degree of learning about foreign country environments and business practices in other cultures/countries, such as: living/working in a foreign country for 2-3 years, expatriate assignments working at regional branches of the company operating in foreign locations for 4-5 years, overseas work of 2-6 months in duration, personal travel and experience overseas, and working on projects/assignments with foreign nationals overseas.

CONCLUSION

This study confirms that having a global mindset does not require adapting to any given culture. Rather, the study suggests that global mindset is a framework that consists of a conceptual shift of the leader that allows the processing of complex environmental stimuli that allows for effective operation in a dynamic, global environment. Since leadership is critical to the success of all organizations (Bass, 1990), it is important to study global leadership and global mindset. As companies increase their reliance on global operations, they require a greater number of leaders with global mindset capabilities. Therefore, organizations need to assist leaders to develop a global mindset, and specifically to increase their intellectual intelligence, cultural intelligence, and ability to differentiate and integrate complex information.

The demographic and organizational factors that we found to significantly affect global mindset are important influencing factors that practitioners may use to increase leaders'

global mindset. Specifically, demographic factors that were found to significantly affect global mindset are learning foreign languages, raised by/live-in a bilingual/multi-ethnic family, the number of countries worked in/conducted business with, and location/country of employment.

Practitioners should help leaders acquire these experiences through leadership development and organizational training programs. Specifically, foreign language training may help leaders learn about differences in cultures and foreign business practices. Greater exposure to bilingual/multi-ethnic environments may help develop skills in flexibility and sensitivity, managing diversity, and thinking globally. Increased opportunities for working in foreign countries and conducting business with foreign nationals will assist leaders to gain experience in cross-cultural understanding, sensitivity, managing global tasks and uncertainty. Employment in overseas locations may facilitate improving differentiation and integration skills and an ability to accommodate to the differences in global business.

Global mindset was found to be influenced by the interactions of multiple variables and the interrelationships among demographic and organizational factors. Future studies may examine the interrelations of the factors influencing global mindset and further evaluate the effects of additional demographic and organizational factors in relation to global mindset. Such factors may include different industry and country environments, organizational strategy, organizational culture, organizational structure, company policies on employment practices, motivation/rewards, and leadership practices. Future research may also examine differences between leaders based on the level of their global mindset.

The theoretical framework of this study extends existing research and may be used in future research on global mindset. Additionally, future research is recommended to test the Global Mindset survey instrument with different samples and in different environments to further examine relationships between global mindset and demographic and organizational factors. By conducting research on the two main components of global mindset, intellectual intelligence and cultural intelligence, additional variables not included in this study may be identified and may be found to be important characteristics of the leaders' intellectual intelligence and cultural intelligence. Finally, future research may also examine factors that are found to influence organizational performance. In summary, this study provides a basis for future empirical studies and enhances the understanding of the characteristics of a global mindset and how global mindset may be developed and improved by leaders and organizations.

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