

**Measuring Hofstede's Uncertainty Avoidance
Using Foreign and Domestic Students**

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Introduction

The number of international students at U.S. colleges and universities rose 4.7% to 723,277 during the 2010-11 academic year, says an annual report by the Institute of International Education. Enrollments have been on the upswing since 2006-07 and grew 32% over the past decade (Marklein, 2011). Multinational corporations will soon be faced with a wealth of talented, educated, multicultural applicants for positions in their firms. This article argues that there may be another excellent reason to hire a US-educated foreign student; they may have a greater tolerance for risk and uncertainty than the average citizen from their home country.

The study uses a readily available survey from a licensed Geert Hofstede web site (itapintl.com) and both domestic and foreign student volunteers to test for the work-value homogeneity of students versus their country norm. Culture is defined as the “collective programming of the mind which distinguishes the members of one human group from another”, where it includes the systems of values and these values are among the building blocks of culture (Hofstede, 1980:21). Our research tries to answer the question, “Does study abroad *deprogram* the foreign student?” In a limited sample, we found that foreign students are lower on uncertainty avoidance than their country norms. We also found that the sample of domestic students was higher on uncertainty avoidance than the United States norm.

Review

This section will review the need to study abroad to be qualified to work for businesses in today's global environment. We also will explore the type of student that goes abroad and discuss the strengths and critiques of Hofstede's work.

The need to study abroad.

There are many sources for describing the need for students to study abroad. But American Scott Freidheim's recent remarks to the British Academy summed up the case very well (Freidheim, 2012).

From my point of view, I have seen firsthand not only the value but also the prerequisite of having the attributes which are developed and fostered through study abroad—namely: global mindset, collaboration, adaptability, flexibility, and learning and cultural agility. These are of paramount importance to achieving success in the international business arena and are many of the very attributes we look for when hiring talent.

While there are many educational and recruiting sources that explain the benefits of study abroad, people actually in international business give the best rationale. To give Mr. Freidheim's remarks more weight; he is Chief Executive Officer, Europe for Investcorp International Ltd. and Member, Board of Trustees, Institute of International Education. Before joining Investcorp in 2011, Freidheim was Executive Vice President, Sears Holdings Corporation. He was President of Kenmore, Craftsman & Diehard. Previously, he was an executive at Lehman Brothers.

What type of student decides to study abroad?

Much research has been conducted to determine what factors dominate the decision process a student goes through when considering the pursuit of an education in another country. While early studies (Cumming 1984) examined migrating patterns, later studies (McMahon, 1992) looked at "push" and "pull" models. Push factors are variables of the country left behind, such as less educational opportunity or low quality of institutions. Pull factors are variables of the destination country or institution, such as educational freedom, safety, or reputation and recognition of the degree in the home country.

Mazzarol and Souter (2002) found six factors were ranked higher by international students than local students—"quality and reputation of the institution, the recognition of the institution's qualification in their own country, the international strategic alliances the institutions had, the quality of the institution's staff, its alumni base and its existing international student population" (p. 87). Hazen and Alberts (2006) surveyed international students, their top three answers for choosing to study in the U.S. was because of better educational opportunities, desire to experience a new culture, and improved job opportunities back home.

In 2007, Daily, et al, looked specifically at factors utilized by international students interested in business schools. They hypothesized that AACSB accreditation would be an important factor representing quality of the institution, and found that accreditation was important yet the international students did not necessarily understand the impact of AACSB accreditation. Little to no research has been done on the personality or values of the individual foreign students. This research looks to fill in a gap in the literature to answer the question: Are foreign students different than the general population of their home country? Hofstede (1980) admits to some within country heterogeneity, he proposes that country variation is less than variation in other variables such as organizational level, job type or gender.

Hofstede's Work Values

Geert Hofstede's transcript on work-values across national lines is one of the most referenced works in the field of international business. For example the Social Science Citations Index indicates that Hofstede's work is widely referenced (cited 1800 times through 1999, Hofstede, 2001). Textbook chapters (Deresky, 2011) and consultancy work (itapintl.com) are based on his work. While beyond the scope of this paper, a full review, discussion, and critique can be found in a recent *Journal of International Business Studies* article (Kirkman, Lowe, and Gibson, 2006). Some of the critiques of Hofstede's work are that it doesn't consider individual differences, that his study doesn't consider subcultures in a nation, and that cultures are assumed to be stable over time (Kirkman, et al, 2006). These critiques are summarized below.

Individual Differences. Cultural values can vary within, as well as between, countries (Bochner and Hesketh, 1994; Offerman and Hellman, 1997). Using country scores at the individual level could result in erroneous conclusions based on incorrect assignment of values (Kirkman, et al, 2006).

Subcultures. Using a single country score ignores within-country variance. Researchers have shown significant cultural differences between regions or subcultures of a single country (Hofstede, 1980; Punnett and Withane, 1990; Selmer and DeLeon, 1996). A 1981 book, [*The Nine Nations of North America*](#) by *Washington Post* reporter Joel Garreau, proposed that there were subcultures on the North American continent that ignored national lines. Our domestic sample is from the Southeastern part of the United States (Dixie according to Garreau); while Hofstede's original United States sample was from New York (The Foundry in Garreau's alignment).

Just as the United States has regional differences, China is a large country with conflicting influences due to individuals with an urban versus a rural background; a north-south difference similar to the US; and especially, the British influence in Hong Kong versus the Russian influence near Beijing.

Vietnam also has some regional differences; most pronounced would be the North-Hanoi centered, Chinese-influenced area versus the South-Saigon (Ho Chi Minh City) centered, American-influenced area (Quang and Vuong, 2002). In general, the Vietnamese people are hospitable and industrious. In particular, people in the north of the country are characterized as politically sensitive, hard-working and risk avoiders (Ralston et al., 1999). The northern part of Vietnam was strongly influenced by the Chinese culture due to a 1000 year period of dominance of the Chinese feudalism. In addition, Vietnam and China have been part of the socialist camp for many decades. The history and geographic vicinity meant that Vietnamese people share many of the cultural and business practices of their Chinese neighbors. According to Vietnamese researchers, Vietnamese culture displays moderate uncertainty avoidance. People in society feel threatened by ambiguous situations and try to avoid these situations by providing greater job stability, establishing more formal rules, and rejecting deviant ideas and behavior. One of the distinctive features in the Vietnamese society is indirect speech, resulting from the importance of saving face (Quang and Vuong, 2002).

Stability. Most cross-cultural researchers assume that cultures are relatively stable systems in equilibrium (Brett and Okumura, 1998). However, Ralston, et al (1999) compared three generations in the People's Republic of China and showed that Chinese managers are becoming more individualistic, less collectivistic, and lower in Confucian dynamism. The evolution from Marxist Communists to Market Communists may have affected the stability of work values. As we discuss in a section below, conflicting results listed as from China and Vietnam muddle the research waters.

Some reports showed a Chinese value of 78 for the UAI (ITAP). However, it is not clear if the sample was from the People's Republic of China (doubtful) or from Hong Kong or even possibly from ethnic Chinese in other parts of the world. Two recent dissertations gave the Vietnamese score as 79 (Hoang, 2008) and the Chinese score as 57 (King-Metters, 2006).

Uncertainty Avoidance

The Uncertainty Avoidance Index (UAI) is one of Hofstede's dimensions that has been measured and tested; but considerably less than the Individualism-Collectivism construct (Kirkman, et al, 2006). The dimension Uncertainty Avoidance has to do with the way that a society deals with the fact that the future can never be known: for instance, should we try to control the future or just let it happen? This ambiguity brings with it anxiety, and different cultures have learned to deal with this anxiety in different ways. The extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these situations is reflected in the UAI score. Low UAI societies maintain a more relaxed attitude in which practice counts more than principles and deviance from the norm is more easily tolerated. In societies exhibiting low UAI, people believe there should be no more rules than are necessary and if they are ambiguous or do not work they should be abandoned or changed. Schedules are flexible, hard work is undertaken when necessary but not for its own sake, precision and punctuality do not come naturally, innovation is not seen as threatening (Hofstede, 1991). Conversely, a high need for certainty, a high UAI score, shows a preference for an environment that is more structure-oriented, and where rules, roles, and management practices are clear and unambiguous (itapintl.com).

Low UAI matches international business requirements. An example is innovation championing strategies, as uncertainty avoidance increased, preferences for champions to work through norms and rules increased. This means that societies with a high UAI, often have more rules and regulations to reduce the uncertainty in development of new products and need a designated champion (probably selected based on seniority) to cut through the red tape. A low UAI society doesn't have as many restrictions and rules, so anyone could be the champion for a product, even an unofficial champion. Uncertainty acceptance (low UAI) may be linked to more innovative societies. Low UA is related to more delegation and easier approachability (Shane, 1995; Offerman and Hellmann, 1997).

Methodology

As part of a class assignment in a senior-level International Management class (two different semesters), students were asked to complete an online survey and bring the results to the class where work values and Hofstede's results were to be discussed. In order to broaden the sample, student volunteers from other classes completed the survey for extra points. Students were all juniors and seniors at a public university in the southeastern United States. Individual student's scores were compared to the national average as given in the instrument. When a student's home country was not listed in the ITAP database (itapintl.com), the national average from Hofstede's main web page (geert-hofstede.com) was used. Departure from mean was noted as a positive or negative value for each student.

We used the ITAP mean for China for both the Chinese and Vietnamese students because that was given in the survey for China and sources said the two cultures were similar (i.e. Quang and Duong, 2002). Also, most of the Vietnamese students in our sample self-selected China as a comparison culture.

The purpose of the research is to determine if there are individual differences that can be identified based on values, or are students studying abroad different than the national norm. The circumstances of a student having left the comfort zone of their home country shows a willingness to take risks and try unknown situations. Therefore Proposition 1: foreign students studying in the US have lower UAI than their national average.

To identify possible regional differences within a country that might be present and based on political conservatism and a desire to stay near home for college we suggest Proposition 2: domestic students are higher than the national average on UAI (more risk adverse).

Results

The foreign sample was comprised of students from 13 different countries. China and Vietnam were overrepresented with the most foreign students, 25 and 9, respectively.

As can be seen from the table below, the foreign student's mean was 14.8 points over their country's Hofstede reported average. US students were 9.05 over the US average of 46. There is no statistical difference shown between the foreign and domestic as verified by the t-test score of .76.

However, if the ITAP reported score of 78 is used for China and Vietnam, then the scores fall in the expected direction and the foreign student's mean is below their country's norm. Using the mean score (57) from King-Metter's (2006) dissertation on Chinese hotel workers in Shanghai shows that the student sample is slightly below her mean.

Table One

	Mean	Mean of difference	78 for PRC and PRV	57 for PRC	Standard Deviation	At or below mean	Total
US	54.94	9.05			13.63	23	83
Foreign	54.25	14.18	-17.82		11.89	10	51
		t-test .76			All 12.90		
China (PRC)	56.28	26.28	-21.72	-.72	13.22	0/23	25
Vietnam (PRV)	54.11	24.11	-23.89		8.96	0/9	9
European	48.11	-8.44			10.95	3	9
Other Asian	55	-9.25			10.86	4	8
male	52.14						73
female	57.72	t-test 0.013					61

Two other interesting findings were the relatively large standard deviations for the US and Chinese samples and the statistically relevant difference in gender scores (T-test of 0.013).

Noting the different means above, using the most current research, question one was confirmed. Foreign students have a lower UAI than their country average, which means they are less risk adverse than the population of their country as a whole. Also question two was

confirmed, domestic (Southern) students had a higher UAI and are more risk adverse than the US population as a whole.

Discussion/Summary

Using stereotypes for hiring decisions is not a wise human resource practice in any situation. However, this exploratory research has shown that using Hofstede's generalities is especially unsubstantiated in emerging economies. In general, the idea that foreign students who studied abroad are more comfortable with uncertainty was supported. One can conclude that a student who has studied abroad is more likely to fit with an innovative organizational culture. Testing for UAI may not be acceptable according to the United States legal system, but you could probably ask interview questions that measure an attitude towards risk.

Also, the standard deviations shown above support the criticism of Hofstede that individual differences are not accounted for enough. Note that the standard deviation in both the United States (13.62) and China (13.22) is larger than the deviation for the foreign sample (11.89) or the sample as a whole (12.90). While standard deviation usually works that way, note that the deviation for the other samples (even European and Other Asian) is, counter-intuitively, smaller than the deviation for the sample as a whole. This result might support the presence of sub-cultures in both countries.

Another notable outcome is the dynamic nature of values in emerging economies, especially noticeable if the country is moving from a Marxist to a Market economy. Hofstede's research, or the scores reported by Hofstede's web site and other consultant's pages, has yet to catch up with the rapid changes and newly emerging values in China and Vietnam.

If your company was contemplating a move into a foreign market, strongly consider a foreign student that had studied in your home country. For instance, if your company is from the United States and you are interested in investing in Vietnam, it would be wise to include a Vietnamese that had studied in the US on your team. Knowledge of both cultures is only one of the advantages of the Vietnamese new hire. They would likely be more willing to take risks, have built better language skills, be more adaptable and flexible, and, to use Freidheim's term, have cultural agility.

Limitations and drawbacks of the study.

As with all research, there are issues that may bias or blur the results. With this paper, the main issue is with emerging/changing country values. Countries such as Vietnam and China have undergone and are undergoing drastic changes in their economies and cultures, especially over the past 20 years (Ralston, et al,1999). Students from these countries that are studying in the United States are usually young, the traditional college age students in their 20s. While the ITAP web page showed 78 on UAI for China, Hofstede's official web site listed scores of 30 on the UAI dimension for both Vietnam and China, thus showing a low preference for avoiding uncertainty (geert-hofstede.com) or a willingness to take risk. Two recent dissertations used Hofstede's scales to measure the current level of cultural work values in Vietnam and China. On the UAI, Vietnam scored a 79 (Hoang, 2008) and China scored a 57 (King-Metters, 2006). This

shows either a change in the culture over time or some regional difference that hasn't been explained as of yet. However, the large number of Chinese and Vietnamese definitely complicated the results of this study. Using the recent dissertation scores would give the result that the survey Chinese students were slightly more willing to assume risk than their fellow citizens. Neither of the dissertations used student samples.

A potential source for future research is the significant difference between the genders. Hofstede did not predict this and no other management studies addressed this area. There are many studies in the comparative gender area, but were outside the original focus of this paper.

Future research needs to be done with a larger, more balanced sample of students from more countries. An unforeseen outcome was the similarity in scores between the average of foreign and domestic students. At 54.25 and 54.94 respectively, the students showed no statistical difference on the UAI measure. Why are domestic students and foreigner students so close in the UAI? Is there a self-selection mechanism at work where foreign students chose a site where they might fit into the culture better? Or is there convergence of work values being developed on a global scale among the youth?

References

- Bochner, S. and Hesketh, B. (1994) Power distance, individualism/collectivism, and job-related attitudes in a culturally diverse work group, *Journal of Cross-Cultural Psychology* 25 (2): 233-257.
- Brett, J.M., and Okumura, T. (1998) Inter- and intracultural negotiation: US and Japanese negotiators, *Academy of Management Journal*, 41 (5): 495-510.
- Cumming, W. K. (1984) Going overseas for higher education: the Asian experience, *Comparative Education Review* 28 (2): 241-257.
- Daily, C.M., Farewell, S. and Kumar, G. (2007) Factors influencing the decision of international students to attend US business schools, Accessed, April 2012, Available at SSRN: <http://ssrn.com/abstract=1025491> or <http://dx.doi.org/10.2139/ssrn.1025491>
- Deresky, H. (2011) *International Management: Managing Across Borders and Cultures, 7ed*, Prentice-Hall, Upper Saddle River, NJ.
- Freidheim, S. (2012) *Valuing Study Abroad: The Global Mandate for Higher Education*, Remarks to the British Academy, International Conference, March 27, 2012, London, United Kingdom, A Briefing Paper from IIE's Center for Academic Mobility Research.
- Garreau, J. (1981) *The Nine Nations of North America*. Avon Books, New York.
- Geert-hofstede.com. <http://www.geert-hofstede.com/index.shtml> (accessed April, 2012)
- Hazen, H. D. and Alberts, H. C. (2006) Visitors or immigrants? International Students in the United States, *Population, Space and Place* 12: 201-216.
- Hofstede, G. (1980). *Culture's Consequences, International Differences in Work-Related Values, abridged edition*. Sage Publications: Newbury Park, CA.
- _____, (1991) *Cultures and Organisations*. New York: McGraw-Hill.
- _____, (1993) Cultural constraints in management theories. *The Academy of Management Executives*, 7(1): 81-94.
- Hoang, H. (2008) *Culture and management: a study of Vietnamese cultural influences on management style*. Dissertation. UMI Number: 3297920
- Itapintl.com. <http://www.itapintl.com/tools/culture-in-the-workplace-questionnaire-cw/itapcwquestionnaire.html> (accessed April, 2012)
- King-Metters, K. H. (2007) *A shift in loyalties: How do the personal values of hospitality service employees in the People's Republic of China compare on Hofstede's national culture dimensions over time?* Dissertation, UMI Number: 3262902

- Kirkman, B.L., Lowe, K.B., and Gibson, C.B., (2006) A quarter century of Culture's Consequences: a review of empirical research incorporating Hofstede's cultural values framework, *Journal of International Business* 37 (3): 285-320.
- McMahon, M.E. (1992) higher education in a world market: an historical look at the global context of international study, *Higher Education*, 24(4): 465-82.
- Marklein, M. B., (2011) More foreign students studying in USA, *USA TODAY* [McLean, VA] 14 Nov 2011: A.3.
- Mazzarol, T.L. and Souter, G.N. (2002) "Push-pull" factors influencing international student destination choice, *International Journal of Education Management* 16 (2): 82-90.
- Offerman, L.R. and Hellmann, P.S. (1997). Culture's consequences for leadership behavior, *Journal of Cross-Cultural Psychology* 28 (3): 342-351.
- Punnett, B.J. and Withane, S. (1990) Hofstede's value survey module: to embrace or abandon? In R.N. Farmer and E.G. McGoun (Eds), *Advances in International Comparative Management*, Vol 5, JAI Press: Greenwich, CN, pp. 69-89.
- Quang, T. and Vuong, N. T. (2002). Management Styles and Organizational Effectiveness in Vietnam, *Research and Practice in Human Resource Management*, 10(2), 36-55.
- Ralston, D. A., Nguyen van Thang & Napier, N. K. (1999). 'A Comparative Study of the Work Values of North and South Vietnamese Managers', *Journal of International Business Studies*, 30(4), 655-672.
- Selmer, J. and DeLeon, C. (1996) Parent cultural control through organizational acculturation: HCN employees learning new work values in foreign business subsidiaries, *Journal of Organizational Behavior* 17 (1): 557-572.
- Shane, S. (1995) Uncertainty avoidance and the preference for innovation championing roles, *Journal of International Business Studies* 26 (1) : 47-68.