Hofstede's values – LOC: Job satisfaction effect in USA, Mexico, Korea, Hong Kong

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ABSTRACT

This study addresses an overlooked link by evaluating the relationships between multinational manufacturing managers' job satisfaction, personality (locus of control), and cultural values (measured using Hofstede's taxonomy). Data were collected from survey responses from 248 managers working for US controlled firms located in the US, Hong Kong, South Korea and Mexico. The findings indicate that the personality of the manager is a mediator of the relationship between job satisfaction and one cultural variable, Masculinity/Femininity. These results should help multinational companies better understand and leverage some of the factors that significantly influence job satisfaction of managers working in different countries. The findings presented here indicate that multinational firms can design management control systems at the individual level versus having a management control system for each country in which they operate.

Keywords: job satisfaction, cultural values, locus of control, international management, management control systems.

INTRODUCTION

The challenges of operating in a global trading environment require companies to develop management control systems to control operations across various countries and continents. While multinational corporations (MNCs) must address the global manufacturing and logistics challenges, they must also remember that management teams at the various locations are composed of individuals with different personalities and different cultures. Today, competitive success on the global stage requires an awareness of how personality and culture can affect employee satisfaction.

There is strong support for the work advanced in this paper. For example, in their meta-analysis research, Ng, Sorensen, and Eby [2006] studied the role of personality at work. They examined the relationship between locus of control (LOC) and various work outcomes and found that internal locus of control was positively associated with favorable work outcomes such as greater job motivation. This stream of research has received increased attention [Barrick & Mount, 2005]. All managers have a personality and that personality helps predict and explain behavior at work [Goldberg, 1993]. LOC is associated with work outcomes including job satisfaction [Judge & Bono, 2001]. More recently, Bruk-Lee, Khoury, Nixon, Goh and Spector [2009] found that job satisfaction is positively related to internal locus of control across various cultures.

In addition to managers' personalities, MNCs must remember that national culture is an important factor to be considered when management control systems are implemented. National culture is an important field of study in various business disciplines: Leach-López, Stammerjohan, and McNair [2007] and Lagrosen [2002], among many others, found that culture matters when setting up management control systems. And yet, Flyn and Saladin [2006] believe that the role of national culture has not been systematically investigated in an organizational context. This study addresses this gap and adds to this literature stream as a first line of research. It is hoped that other researchers will replicate and expand the results obtained and presented below.

There are practical implications of studying the effect of personality and culture on work outcomes to help companies improve productivity worldwide. One important outcome is job satisfaction of employees. Job satisfaction should not be the only focus of management control systems, but it should be considered an important goal as it relates to overall company performance. MNCs "ought to feel obligated to enhance the well-being and satisfaction of their employees [Bowling, 2007: 179]." Increasing the job satisfaction of employees can benefit the firm by decreasing counterproductive work behaviors [Dalal, 2005], by decreasing turnover intention and actual turnover [Tett & Meyer, 1993], by decreasing absenteeism [Farrell & Stamm, 1988], and by increasing employee punctuality [Koslowsky, Sagie, Krausz, & Sincer, 1997].

The purpose of this study is to test the association between manufacturing managers' job satisfaction, personality (locus of control), and cultural values (measured using Hofstede's taxonomy). The key research question is: Do managers' individual personalities mediate the relationships between cultural values and job satisfaction? While considerable research attention has been devoted to study various cultures and the impact of control systems on employee behavior, it is also important to understand the impact of employees' personality on job satisfaction in conjunction with cultural values. The results should help MNCs understand some of the factors that drive job satisfaction.

This study is organized as follows: Section 2 reviews extant literature associated with the three variables used in the study's model: job satisfaction, locus of control and Hofstede's cultural values dimensions. The hypotheses development is included in Section 3. The methodology and results are presented in Sections 4 and 5. The Conclusion in Section 6 includes a discussion of results found, including limitations and suggestions for future research.

MODEL VARIABLES

Job Satisfaction

Job satisfaction has been the focus of scores of research. Locke [1976: 1,300] defined job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences." This construct has become a pivotal construct in organizational behavior theory [Heller, Ferris, Brown & Watson, 2009]. Given the wide scope of research into job satisfaction it would be difficult to cover all the research related to this construct. Judge and Bono [2001] and Judge, Heller and Mount [2002] meta-analysis work are excellent examples of overviews of job satisfaction literature.

Locus of Control

Locus of Control (LOC) is a personality construct denoting an individual's generalized expectancies for control of reinforcements or rewards. Rotter [1966] described LOC as distributing individuals according to the degree to which they accept personal responsibility for what happens to them. Under LOC individuals are classified as being either more internal or more external oriented where higher LOC values indicate a more external orientation. Individuals who believe they can control reinforcements in their lives are considered to be more internal. Those who believe that fate, luck, or other people control reinforcements in their lives are considered to be more external [Spector, 2005]. Rotter [1966] found that personalities that tend to be external are generally more susceptible and submissive to direct influence by others. Personalities that tend to be more internal are not as susceptible and submissive to others' influence.

Hofstede's Cultural Values

Culture is an important construct. It indicates how, in general, a person will behave in a particular role or status in a given society [Harrison, 1993]. The concept of culture used by most researchers is based on the work of Hofstede [1980] who developed a commonly acceptable, well-defined, and empirically-based terminology to identify and describe cultural values. Hofstede [1980] and Hofstede and Bond [1988] identified five dimensions of culture: (1) large versus small power distance, (2) individualism versus collectivism, (3) masculinity versus femininity, (4) strong versus weak uncertainty avoidance, and (5) long-term orientation versus short-term orientation.

Power distance (PDI) refers to the way in which individuals handle the problem of human inequality. A large PDI classification represents acceptance of inequality; individuals would tend to accept a hierarchical order in which everybody has a place which needs no further justification

[Perera & Mathews, 1990]. Small PDI values indicate that subordinates and supervisors regard each other as equivalent people who should have equal rights [Hofstede, 1980, 2001].

Individualism (IDV) measures how individuals look after their own self-interests and the interests of their immediate family only. At the other extreme of this dimension is collectivism where everyone is expected to look after the interest of their relatives or members of their own in-group [Hofstede, 1983b]. Under this perspective, an individual is seen as having an identity not dependent upon a group affiliation [Hofstede 1980, 2001]. According to Perera and Mathews [1990], with high individualism, the employer-employee relationship would tend to be calculative with priority in business given to task performance.

Uncertainty avoidance (UAI) relates to the degree to which individuals feel uncomfortable with uncertainty and ambiguity. With strong UAI there is low tolerance for ambiguity and uncertainty and an aversion towards risk taking [Hofstede, 1980, 1999, 2001], people prefer group decisions. According to Perera and Mathews [1990], the fundamental issue involved in this dimension is how individuals react to the fact that the future is not known. Strong uncertainty avoidance individuals would like to beat an unpredictable future which creates a higher level of anxiety.

Masculinity (MAS) represents a societal preference for showing off, achievement, heroism, assertiveness, making money or enjoying material success. Femininity represents a preference for putting relationships with people before money, helping others, caring for the weaker. The MAS value describes the extent to which aggressiveness and success are valued instead of concern for relationships [Hofstede, 1980, 2001]. This dimension draws attention to the existence of competitiveness as opposed to solidarity, equity as opposed to equality, and achievement motivation as opposed to relationship motivation.

Long-term orientation (LTO) refers to a cultural value fostering virtues oriented towards future rewards, in particular perseverance and thrift. Short-term orientation (STO) stands for a cultural value fostering virtues related to the past and the present, in particular respect for tradition, preservation of "face," and fulfilling social obligations [Hofstede, 1980, 2001]. With a long term orientation there is a tendency towards valuing order in relationships by status and observing this order. With a short term orientation there is a tendency towards valuing personal steadiness and stability, thus discouraging change or risk. This cultural dimension was originally labeled Confucianism, but it was renamed since both opposing poles of the dimension contain Confucian values [Hofstede, 2001: 355].

Hofstede's cultural values were used in this study for two main reasons. First, the GLOBE cultural measures developed by House, Hangers, Dorfman, and Gupta, eds. [2004] have shown some promise but these measures require a very long questionnaire, a total of 72 measured items, as opposed to a total of 18 measured items needed to calculate Hofstede's five cultural dimensions. Second, the extensive use of Hofstede's cultural dimensions in the existing literature allows for more generally acceptable hypotheses development and more realistic comparability to prior studies.

HYPOTHESES

Cultural Values

This study evaluates the effects of personality and cultural values on job satisfaction. The samples were obtained from four countries but all the respondents work for US controlled firms.

The samples' cultural values were compared to evaluate their similarities and differences. The first hypothesis tests the cultural similarities and differences of the respondents, stated in the null form.

H1: There is no significant difference in the cultural values based on the nationality of the respondents.

Cultural Values and Job Satisfaction

Management with high power distance (PDI) makes the decisions and exists in a less consultative work environment so that the power is not distributed equally [Hofstede, 1980, 2001]. The organizational hierarchy of inequality is the principle on which all relationships are based [Flynn & Saladin, 2006] and subordinates expect supervisors to be autocratic [Hofstede, 1980, 1984]. Leach-López et al. [2007] found that mid-level managers prefer a more consultative decision making process, thus an inverse relationship between PDI and job satisfaction (SAT) is expected so that respondents with high PDI will report lower SAT.

Uncertainty avoidance is related to the acceptance of an unknown future. Managers with low uncertainty avoidance (UAI) dislike formal rules and are willing to live day to day [Hofstede, 1980, 2001]. High UAI people tolerate behaviors and opinions that are different from their own [Flynn & Saladin, 2006]. Managers in a high UAI culture are less reactive, less flexible [Wacker & Sprague, 1998]. Managers would have to be reactive in order to respond to the every day's challenges, thus an inverse relationship between UAI and SAT is expected so that respondents with low UAI will report higher SAT.

An individualistic manager would score high in the Individualism (IDV) construct. Respondents high in the IDV construct would tend to act according to their own interests [Hofstede, 1983a, 1983b]. High IDV managers would value individual success and take satisfaction in a job well done [Flynn & Saladin, 2006]. Collectivism, by contrast, takes satisfaction in a job well recognized. These managers would have more pressure to conform to their in-group and strive to preserve face and avoid shame [Hofstede, 1980, 2001]. A direct relationship between IDV and SAT is expected so that respondents with higher individualism (IDV) will report higher SAT.

Respondents high in the masculinity (MAS) construct (versus a feminism slant) would value high earnings, advancement and challenging work. Conflicts are best resolved by a 'good fight' [Flynn & Saladin, 2006]. With a high MAS outlook, an ideal job provides opportunities for recognition, advancement and challenge [Hofstede, 1980, 2001]. A direct relationship between MAS and SAT is expected so that respondents with high MAS will report high SAT. The labels in this cultural classification are used as presented by Hofstede [1980, 2001] and are not meant to be disparaging in any way, nor are they meant to represent the gender of the respondent.

The long-term to short-term orientation dimension is based on teachings similar to those of Confucius. The concepts advocated by Confucius can be found at both ends of this dimension. This cultural value opposes long-term to short-term aspects of Confucian thinking: persistence and thrift compared to personal stability and respect for tradition. Given the duality of this cultural value, it is difficult to determine a priori an expected relationship between LTO and SAT.

The cultural hypotheses test the relationships between the five cultural values following Hofstede's [1980] taxonomy and SAT. One sided hypotheses for PDI, UAI, IDV, and MAS are proposed, and the hypothesis with LTO is stated in the null form.

H2: The relationship between SAT and the cultural values will be:
a. Inverse with PDI
b. Inverse with UAI
c. Direct with IDV
d. Direct with MAS
e. No relationship with LTO

Cultural Values and Locus of Control

Hofstede [2001] explains that culture is to a human collectivity what personality is to an individual. He further argues that culture and personality interact so that "cultural traits can sometimes be measured through personality tests [2001: 10]." Thus a test of the relationship between locus of control and the five cultural values of the managers is needed. It is expected that the more internal managers, those with lower LOC, will be associated with low power distance (PDI) and low uncertainty avoidance (UAI). Lower PDI managers would be more assured of their position in the firm, and those with lower UAI can tolerate uncertainty and are able to make decisions, thus feel more in control. It is expected that the more internal managers will be associated with high individualism (IDV) and high masculinity (MAS), and that the lower LOC will be associated with a short term orientation (low LTO) since a mid-level manager makes more operational decisions as opposed to long term, strategic decisions.

H3: The relationship between LOC and the cultural values will be:
a. Direct with PDI
b. Direct with UAI
c. Inverse with IDV
d. Inverse with MAS
e. Direct with LTO

Locus of Control and Job Satisfaction

Spector's [1982] literature research illustrated that employees with a low score in the Locus of Control scale, with internals' characteristics, very often have higher levels of job satisfaction. The higher job satisfaction of those with low LOC values is well documented [Blau, 1987; Bond & Bunce, 2003; Judge & Bono, 2001; Judge, Locke & Durham, 1997; Ng, et al., 2006; Spector, et al., 2002; among many]. According to Ozer [2008], people with low LOC, more internal oriented, take more assertive actions to change the work environment or to change jobs when they are not satisfied, thus will likely perform better, receive more benefits at work, and therefore will feel more satisfied [Blau, 1987; Judge & Bono, 2001; Ng et al., 2006]. LOC was so that the larger the value, the more external is the manager. The lower the measurement of LOC indicates a more internal personality. Job satisfaction was also measured so that the higher responses indicate higher job satisfaction. This leads us to the next hypothesis:

H4: LOC is inversely related to SAT

Job Satisfaction, Locus of Control and Cultural Values

The last hypothesis tests the moderating effect of personality in the relationship between cultural values and job satisfaction. This model is tested while controlling for employees'

characteristics. Ng et al. [2006] concluded that there are five major employees' characteristics that must be modeled when analyzing job satisfaction. These characteristics are job level (managers vs. non-managers), job types (manufacturing vs. non-manufacturing), age, job tenure, and gender. Job level and job type have been controlled by including only mid-level managers in manufacturing multinational firms. The variables age, job tenure, and gender are used as control variables (see Figure 1 in the Appendix).

H5: LOC mediates the relationship between culture and SAT

METHODOLOGY

Variables and Measures

Using a survey instrument, job satisfaction (SAT) was measured with the short-form of the Minnesota Satisfaction Questionnaire (MSQ) [Weiss, Davis, England & Lofquist, 1967]. Scarpello and Campbell [1983] judged the MSQ the most successful facet-based measure of predicting overall job satisfaction. The short-form version of the MSQ has also been supported for its reliability and validity [Weiss et al., 1967]. The locus of control personality variable (LOC) was measured with a refined version of the additive scale developed by Rotter [1966]. The refined scale includes filler items to disguise the purpose of the test. The cultural dimensions scores for power distance (PDI), uncertainty avoidance (UAI), individualism (IDV), masculinity (MAS), and long term orientation (LTO) were calculated using Hofstede's VSM 94 [Hofstede, 1994]. The respondents were also asked to indicate their gender, age, education, and length of employment in the firm and in their current position.

Data Sample

The questionnaire used to collect the data was prepared in English and translated to Chinese, Korean, and Spanish. Each mid-level manager completed the survey written in their native language: Chinese, Korean, Spanish, or English. The questionnaires were translated using the method suggested by Hui and Triandis [1985] and by Hui and Yee [1999]. First, two individuals highly proficient in English and one of the other languages translated from the English version of the questionnaire into Chinese, Korean, or Spanish. The translations were compared and a third bilingual person reviewed the translations. Minor adjustments were made at each step as needed. Different methods of data collection were employed because of logistical differences within the four countries included in this study. All of the surveys were completed in a written format.

The US sample included emailing the survey instrument to HR managers and asking the HR manager to distribute the survey within that particular plant. The responses were returned as email attachments directly to one of the authors. The firms consisted of manufacturing firms located in southeast United States. The Mexican sample questionnaires were all hand delivered and hand collected due to the unreliability of the Mexican postal system. The firms were US controlled maquiladoras located in Nuevo Laredo, a border town, and in Puebla, a city south of Mexico City. The HR manager of each South Korean firm sampled was contacted and surveys were delivered and returned by mail. The sample includes US directed or controlled manufacturing firms located in South Korea. The Chinese survey was obtained at one plant

located in Hong Kong; the questionnaires were hand delivered and hand collected. The Chinese firm manufactures car parts as a joint venture with a US firm.

The full sample consists of mid-level managers working in manufacturing firms. The US sample consists of US managers working for US firms in the US. The other subsamples (Mexican, Korean, and Chinese) include foreign managers working for US controlled manufacturing companies located in Mexico, South Korea, and Hong Kong respectively. The Mexican managers are employed by US controlled maquiladoras located in Mexico. Each of the Korean managers is employed by a different US controlled joint venture firm, while the Chinese managers all work for a single US controlled joint venture firm.

For the US sample, 30 firms located in Southeast United States were contacted and responses were received from 16 firms for a response rate of 53%. For the Mexican sample, 88 maquiladoras were contacted and 49 firms participated for a response rate of 56%. For the Korean sample, a manager in each of 55 firms was contacted to obtain an oral agreement to participate in this study, 52 responses were obtained for a 94% response rate. For the Chinese sample, 50 responses were obtained to allow for the minimum sample size of 20 suggested by Hofstede [1994]. The data gathering had to be conducted according to the limitations placed by the various managerial styles in the four countries and by accessibility to willing respondents. All of the responses were obtained within a two to three week time period. Analyses of the data were conducted to examine whether any non-response biases were present. Tests were conducted to rule-out any potential non-response bias by comparing early to late responders on all study variables and demographics. No significant differences were found between early and late respondents across the study variables.

DATA ANALYSIS AND RESULTS

Several analytical methods were used to evaluate the hypotheses advanced in this paper. Descriptive statistics were used to analyze the demographics of the respondents. One-way ANOVA was used to evaluate the differences in the mean responses of the cultural values and the control factors: firm tenure, job tenure, education and age of the respondents. The hypotheses were evaluated using correlations and multiple regression analysis in order to isolate the direct effects of collinearity. Regression analysis was used to evaluate the mediating role that locus of control (LOC) plays between the cultural values and satisfaction (SAT). Table 1 provides a summary of the respondents by nationality and gender. As shown, from a sample of 248 managers, the Mexican sample includes the largest number of respondents (90) where 62 respondents were males and 27 were females, with one missing value for gender. The next highest number was 54 for both the US and Korean managers where there were 7 US females and 3 Korean females. The fourth group was the Chinese managers (50) with 25 males, 13 females and 12 non-respondents as to gender (see Table in the Appendix).

ANOVA Results

For the entire sample of respondents, ANOVA was used to evaluate the underlying differences across the four nationalities represented based on their mean responses to cultural variables, outcome variables, and demographic variables. These results are summarized in Table 2 (see Table 2 in the Appendix). To test H1, one-way ANOVA was used for each of the cultural values to measure the overall differences in the mean responses across the four nationalities represented. A Bonferroni post-hoc analysis was also performed to compare the difference in the

means for each combination of nationalities represented. When these cultural variables were evaluated, the results were very interesting. No significant differences were found on the cultural dimensions of power distance and uncertainty avoidance. However, when the individualism/collectivism dimension was evaluated, the US managers scored higher on this dimension that either the Korean or the Mexican managers did. When Masculinity/Femininity was evaluated, the Mexican managers scored higher on this dimension than the Chinese managers did. Finally, when long term orientation was evaluated, both the Korean and Mexican managers scored higher on this dimension than either the US or the Chinese managers did.

The Chinese managers scored higher on locus of control than all the other managers in the sample did, thus they demonstrate a more external locus of control. When the mean responses on satisfaction were evaluated, the US managers scored higher on this dimension than the Chinese managers did. In addition, the Mexican managers scored higher on satisfaction that either the Chinese or Korean managers.

Several differences were noted when the demographic variables were evaluated across the four nationalities. First, when the tenure in the firm was evaluated, the US managers were found to be at their companies for a longer time period than the Mexican managers were. Next, when the tenure in the managerial job was evaluated, the Mexican managers were found to be in their jobs for a longer time period than the Korean managers were. Then, when the number of years of education was evaluated, no significant differences were found. Finally, when age of the respondents was evaluated, the US managers were found to be significantly older than either the Chinese or the Mexican managers, and the Korean managers were found to be older than the Chinese managers.

Correlation Analysis and Regression Analysis Results

The hypotheses were evaluated using correlation analysis and multiple regression analysis. The results for the correlation analysis are shown in Table 3 (Appendix). The correlation matrix shown in Table 3 uses the Pearson bi-variate correlation coefficients to report two-tailed relationships between the key variables in this study and also as an initial test of the hypotheses. Hypotheses 2 and 3 are one sided thus one tailed results are reported here. For H2, one-tailed analysis indicates that Power Distant (PDI, beta = -0.18, p=0.002), Uncertainty Avoidance (UAI, beta = -0.11, p=0.037), and Masculinity (MAS, beta=0.11, p=0.037) are significantly related to Satisfaction (SAT). For H3, one-tailed tests found a marginal relationship between Power Distance (PDI, beta=0.09, p=0.077) and Locus of Control (LOC), and a significant relationship between Masculinity/Femininity (MAS, beta = -0.22, p=0.000) and locus of control (LOC). For H4, LOC was found to be significantly related to SAT (beta= -0.303, p=0.000).

Other interesting relationships found in Table 3 indicate that managers with a higher level of education have a more internal personality and have a shorter firm tenure. Age is also correlated with LOC (older managers are more internal), with SAT (older managers report higher satisfaction), and with firm and job tenure (older managers have longer tenures).

Locus of Control as a Mediator

Next, a mediation analysis was performed to evaluate how personality (locus of control) mediated the relationship between the dependent variable (satisfaction) and the cultural antecedents (PDI, IDV, UAI, MAS, LTO). Barron and Kenny [1986] recommend that mediation tests be done using three equations where Y is the outcome variable, X is the independent variable and M is the mediator.

$$Y = a_{10} + a_{11}X + \text{error} \quad (1)$$

$$M = a_{20} + a_{21}X + \text{error} \quad (2)$$

$$Y = a_{30} + a_{31}X + a_{32}M + \text{error} \quad (3)$$

In the first equation, the direct path is tested between the independent variable and the outcome variable. This procedures was completed successively where Y= dependent variable (satisfaction), X= each independent variable (PDI, IDV, UAI, MAS, LTO). In the second equation, the independent variable is regressed on the mediator (M= LOC). In the third equation, both the independent variable and the mediator are regressed on to the outcome variable (satisfaction). For mediation to occur each equation must be significant and there should be an improvement in R-square between equations (2) and (3). For full mediation to occur, the beta for X in equation 3 should be non-significant. For partial mediation, the beta for X in equation 3 must be less than the beta for X in equation 1.

These detailed tests for mediation were performed, as discussed above, and the results are shown in Table 4 (Appendix), where (except for the relationship between MAS, LOC and SAT), none of the other relationships were significant for all three equations. When LOC was evaluated as a mediator between MAS and SAT, the beta for MAS in equation 1 and 2 were significant while the beta for MAS in equation 3 was non-significant, suggesting full mediation. This evidence of mediation was also supported by the noticeable increase in R-square (from 0.013 to 0.101) from equation 1 to equation 3. These mediation analysis results were also evaluated by controlling for all demographic differences across nationality, sex, age, education, firm tenure and job tenure. Here, the only significant results were found for the interaction between job tenure and MAS, where the respondents' job tenure had a positive interaction with MAS (beta = 0.05, p-value =0.042) in predicting satisfaction levels. None of the other demographic controls were significant.

To test the robustness of these results, this mediated model was further evaluated using path analysis in AMOS. Here, the asymptotic distribution-free approach was used to estimate the parameters along with bootstrapping 5,000 samples evaluated with replacement. The results indicated relatively good model fit (Chi-square/df = 2.5, GFI =.98, AGFI=.92, CFI=.87, RMSEA=.07 with 90% RMSEA from .02 to .13). The regression coefficients and the 90% confidence intervals for each estimate are shown in Table 5 (Appendix), where the only two significant linkages are between MAS and LOC (with 90% confidence of –.36 to -.17) and between LOC and SAT (with 90% confidence of -.45 to -.23). Also, the indirect effect of MAS on SAT was significant (p=.004), indicating evidence of mediation. Finally, the coefficient of determination for both LOC and SAT were significant where R^2 for LOC ranged from .06 to .19 and R^2 for SAT ranged from .05 to .20

CONCLUSION

This detailed analysis of responses from manufacturing managers working for US controlled companies located in four different countries potentially offers some interesting guidance for companies operating in multiple geographic locations. First, from the results for hypothesis 1, the ANOVA results showed some significant differences and similarities across nationalities based on their mean responses to cultural variables, outcome variables and demographic factors (see Table 3 in the Appendix). Some of these results are interesting. For example, the US managers scored higher in Individualism than the Mexican and the Korean managers did. It is noteworthy that this result is not unexpected since the US is ranked as number 1 in this cultural value [Hofstede, 2001: 500]. However, it is surprising that the Chinese managers were not significantly different from the US managers in this cultural value. Hofstede [2001] found that for Individualism Mexico and Hong Kong ranked 32 and 37 respectively, with Korea ranked 43rd. The Korean and Mexican managers had a longer time horizon (LTO) than both the US and Chinese managers did. The Mexican managers were higher in the MAS value than the Chinese sample but no significant differences were detected between the Mexican and the Korean samples. Finally, there are no significant differences in Power Distance (PDI) or Uncertainty Avoidance (UAI) among the four samples. Of the four countries in this study, Hofstede [2001] ranks Mexico as high in PDI (5th), next Hong Kong (15th), and Korea (27th) with USA as the lowest in PDI (38th) out of 53 countries and regions. Hofstede [2001] classifies Hong Kong and USA as low in UAI and Korea and Mexico as high in UAI but the four samples used in this study are classified as low in UAI. The ANOVA analysis also indicated that the average Chinese respondent had a less internal personality (higher LOC) than the other three samples, but the average Chinese respondent would not be classified as having an extreme external personality.

The findings provide some important implication for multinational manufacturing firms as they develop and implement their management control systems. The findings suggest that MNCs should institute policies that consider the individual manager's personality. Specifically, the relationship between the cultural value MAS and the outcome of job satisfaction was indeed mediated by the manager's personality, LOC. Here, the results suggest that personality of the individual manager is a significant factor in various cultural settings. This should be an important consideration for MNCs in that when management control systems are developed, they should give greater consideration to the personality of their managers without forgetting their cultural values. Management control systems in manufacturing firms represent a special challenge for management accountants given that managers represent their largest internal customer in most organizations. Increasing our knowledge of what contributes to a strong MCS should help the accounting profession produce more efficient management control systems.

It is hoped that this study will encourage a new stream of international research that will include both the personality and the cultural values of respondents to help guide MNCs develop effective and efficient management control systems. The authors recognize that while various studies have attempted to explain the benefits of management control systems in a global setting, more research is needed. For example, Leach-López, Stammerjohan and Rigsby [2008] used locus of control to evaluate the usefulness of budgetary participation in Mexico. Even though they only included LOC in their study but did not measure cultural values, they concluded that this management control system would be beneficial for Mexican managers despite cultural differences between US and Mexican managers. Other studies have included cultural variables

but have not incorporated the personality of the managers [Mueller, Hattrup & Hausmann, 2009; Noordin & Jusoff, 2010]. Therefore, more research needs to be done in this arena. For example, the cultural value of masculinity (MAS) represents a preference for achievement, a preference for making money or enjoying material success. Given that the managers in this study are employed in US controlled firms, a question arises: have these managers selected a US controlled firm in order to achieve certain economic advantages, or have these US controlled firms recruited individuals that are very aggressive, who strive to achieve? It must be pointed out that gender was one of the controlling variables in our model and it was not found to have a significant effect. In order to triangulate the results found, this study needs to be replicated using managers not working for US controlled firms.

There are some limitations to this study. First, the samples of multinational managers could be considered somewhat small and the inequality of sample sizes from each country might also affect the results. But, for each culture a sample larger than the minimum sample size of 20 recommended by Hofstede [2001] was obtained. Second, it was hypothesized that cultural variables are valid antecedents of personality. Future studies should explore these relationships further using a larger sample of respondents. Third, since all of the respondents work in firms associated with, or controlled by US firms, future research is needed to determine whether the respondents have been 'americanized' and whether the findings will hold for foreign firms that are not associated with, or controlled by US multinationals. Finally, a common limitation, as usually found in this type of research, is the reliance on self-reported data gathered using established scales where it was expected respondents to be truthful and accurate. Future studies could utilize different data gathering methods. Despite these acknowledged limitations, the findings reported contribute to an overlooked area of research as a first line of inquiry.

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APPENDIX

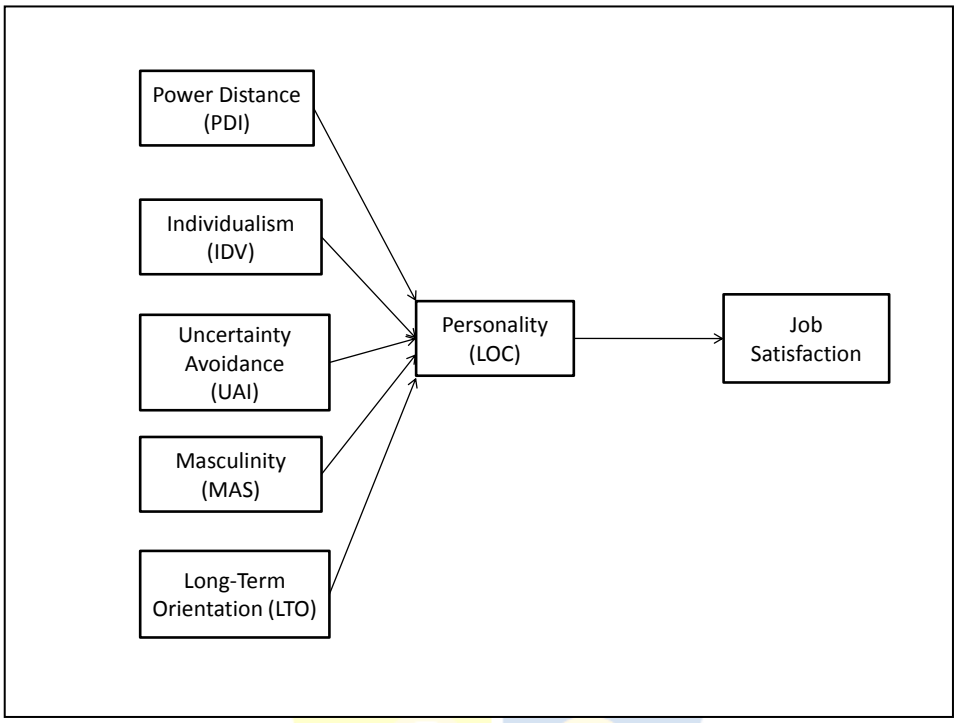

Figure 1: The Mediating Role of Locus of Control

Table 1
Number of Respondents by Country and Gender

Country	Male	Female	N.A.	Total
China	25	13	12	50
South Korea	51	3	0	54
Mexico	62	27	1	90
U.S.A.	46	7	1	54
Grand Total	184	50	14	248

Table 2

ANOVA Results

		Mean values by Country				ANOVA Results	
Variables		U.S.A. (A)	Chinese (C)	Korean (K)	Mexican (M)	Significant Contrasts	p-value
Culture	Power Distance	29.6	31.4	19.5	28.9	NONE	.586
	Uncertainty Avoidance	35.1	50.9	42.7	62.6	NONE	.070
	Individualism/Collectivism	95.3	80.8	71.0	61.2	A > M A > K	.000
	Masculinity/Femininity	68.5	36.0	50.9	85.8	M > C	.001
	Long Term Orientation	41.1	41.2	55.9	52.2	K > A, C M > A, C	.000
Outcomes	Locus of Control	7.4	11.9	8.6	7.0	C > A, K, M	.000
	Satisfaction	69.1	59.5	65.3	73.8	A > C M > C, K	.000
Demographic	Firm Tenure	11.8	11.4	10.1	7.7	A > M	.027
	Job Tenure	4.3	5.3	2.9	5.4	M > K	.035
	Education	16.1	15.2	16.1	15.4	NONE	.040
	Age	5.8	4.4	5.4	5.0	A > C, M K > C	.000

Notes:

1. Firm Tenure: represent number of years respondent was at that specific firm.
2. Job Tenure: represent number of years respondent was in that managerial job.
3. Education: Grade School (4-8); High School (9-12); College (13-16); Post-Grad (16+).
4. Age: 1: < 20; 2: 20-24; 3: 25-29; 4: 30-34; 5: 35-39; 6: 40-49; 7: 50-59; 8: 60+.

TABLE 3
Correlation Matrix

Correlations

		LOC	SAT	FTenure	JTenure	Educ	Age	PDI	UAI	IDV	MAS	LTO
LOC	Pearson Correlation	1	-.303**	.074	-.058	-.202**	-.194**	.091	.068	.042	-.261**	-.063
	Sig. (2-tailed)		.000	.244	.362	.002	.003	.153	.285	.515	.000	.320
	N	248	248	248	248	236	235	248	248	248	248	248
SAT	Pearson Correlation	-.303**	1	-.082	-.044	.095	.143*	-.180**	-.114	.056	.113	.078
	Sig. (2-tailed)	.000		.200	.486	.148	.028	.004	.074	.382	.075	.221
	N	248	248	248	248	236	235	248	248	248	248	248
FTenure	Pearson Correlation	.074	-.082	1	.566**	-.165*	.589**	-.043	.068	.000	.027	.007
	Sig. (2-tailed)	.244	.200		.000	.011	.000	.505	.289	.997	.671	.913
	N	248	248	248	248	236	235	248	248	248	248	248
JTenure	Pearson Correlation	-.058	-.044	.566**	1	-.115	.402**	.031	.259**	-.086	.133*	-.004
	Sig. (2-tailed)	.362	.486	.000		.079	.000	.629	.000	.179	.036	.952
	N	248	248	248	248	236	235	248	248	248	248	248
Educ	Pearson Correlation	-.202**	.095	-.165*	-.115	1	-.066	-.044	-.065	.076	-.017	-.090
	Sig. (2-tailed)	.002	.148	.011	.079		.316	.502	.321	.244	.797	.166
	N	236	236	236	236	236	229	236	236	236	236	236
Age	Pearson Correlation	-.194**	.143*	.589**	.402**	-.066	1	.030	.027	-.017	.043	.017
	Sig. (2-tailed)	.003	.028	.000	.000	.316		.651	.681	.790	.509	.791
	N	235	235	235	235	229	235	235	235	235	235	235
PDI	Pearson Correlation	.091	-.180**	-.043	.031	-.044	.030	1	.127*	-.054	-.065	.171**
	Sig. (2-tailed)	.153	.004	.505	.629	.502	.651		.045	.397	.305	.007
	N	248	248	248	248	236	235	248	248	248	248	248
UAI	Pearson Correlation	.068	-.114	.068	.259**	-.065	.027	.127*	1	.020	.079	.023
	Sig. (2-tailed)	.285	.074	.289	.000	.321	.681	.045		.749	.214	.715
	N	248	248	248	248	236	235	248	248	248	248	248
IDV	Pearson Correlation	.042	.056	.000	-.086	.076	-.017	-.054	.020	1	-.018	-.017
	Sig. (2-tailed)	.515	.382	.997	.179	.244	.790	.397	.749		.773	.793
	N	248	248	248	248	236	235	248	248	248	248	248
MAS	Pearson Correlation	-.261**	.113	.027	.133*	-.017	.043	-.065	.079	-.018	1	-.077
	Sig. (2-tailed)	.000	.075	.671	.036	.797	.509	.305	.214	.773		.226
	N	248	248	248	248	236	235	248	248	248	248	248
LTO	Pearson Correlation	-.063	.078	.007	-.004	-.090	.017	.171**	.023	-.017	-.077	1
	Sig. (2-tailed)	.320	.221	.913	.952	.166	.791	.007	.715	.793	.226	
	N	248	248	248	248	236	235	248	248	248	248	248

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

TABLE 4
MEDIATION ANALYSIS FOR LOCUS OF CONTROL

Variable (X)	Equation (1) for Y as Dep. Variable	Equation (2) for M as Dep. Variable	Equation (3) for Y as Dep. Variable
PDI (X)	-.046***	0.007	-.897***
LOC (M)	N/A	N/A	-.039***
R-square	0.033	0.008	0.115
Significance level of F	0.004	0.153	0.000
Variable (X)	Equation (1) for Y as Dep. Variable	Equation (2) for M as Dep. Variable	Equation (3) for Y as Dep. Variable
IDV (X)	0.015	0.004	0.018
LOC (M)	N/A	N/A	-.949***
R-square	0.003	0.002	0.097
Significance level of F	0.382	0.515	0.000
Variable (X)	Equation (1) for Y as Dep. Variable	Equation (2) for M as Dep. Variable	Equation (3) for Y as Dep. Variable
UAI (X)	-.022*	0.004	-0.018
LOC (M)	N/A	N/A	-.920***
R-square	0.013	0.005	0.101
Significance level of F	0.074	0.285	0.000
Variable (X)	Equation (1) for Y as Dep. Variable	Equation (2) for M as Dep. Variable	Equation (3) for Y as Dep. Variable
MAS (X)	.016*	-.012***	0.005
LOC (M)	N/A	N/A	-.910***
R-square	0.013	0.068	0.093
Significance level of F	0.075	0.000	0.000
Variable (X)	Equation (1) for Y as Dep. Variable	Equation (2) for M as Dep. Variable	Equation (3) for Y as Dep. Variable
LTO (X)	0.045	-0.012	0.034
LOC (M)	N/A	N/A	-.928***
R-square	0.006	0.004	0.095
Significance level of F	0.221	0.319	0.000

Table 5

Standardized Regression Coefficients with 90% confidence Intervals

Parameter			Estimate	Lower 90%	Upper 90%	P-value
LOC	<---	IDV	0.023	-0.084	0.144	0.648
LOC	<---	MAS	-0.268	-0.363	-0.176	0.004
LOC	<---	UAI	0.094	-0.038	0.198	0.262
LOC	<---	PDI	0.101	-0.011	0.2	0.142
LOC	<---	LTO	-0.098	-0.214	0.007	0.109
SAT	<---	LOC	-0.334	-0.448	-0.227	0.004