

# An Exploratory Study and Design of Cross-Cultural Impact of Information Systems Managers' Performance, Job Satisfaction and Managerial Value

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## ABSTRACT

*This research is an exploratory study and design to find cross-cultural impact on information systems (IS) managers' performance, job satisfaction and managerial value, particularly on American IS and Korean IS expatriate managers in the U.S. in the banking industry. Through the literature review, first, this study attempts to find frequently used variables to measure the magnitude of the cross-cultural impact on the two national IS managers. Second, a literature-derived research instrument was developed and pretested for content validity. Third, to examine the goals and objectives of the study, 14 hypotheses were developed through the literature research. And then the hypotheses were matched to the specific items in the research instrument in order to test them. Fourth, this paper presents a research design, which used the cultural variables to separate the influences of the cross-cultural impact on the IS managers from the other variables, followed by the research methodology in which the questionnaire's reliability and validity were tested using Pearson's correlation analysis, Cronbach's  $\alpha$  test and factor analysis. Fifth, based on the data analysis, the test results of the hypotheses were examined, and compared with the existing literature. Finally the research conclusion is presented.*

**Keywords:** Korean IS expatriate managers, American IS managers, culture, performance, value, job satisfaction

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## LITERATURE REVIEW

One of the fundamental issues in cross-cultural management in IS research is to determine the extent to which culture

impacts on IS manager's behaviors, beliefs, attitudes, values, motivation, job satisfaction, and performances in the workplace (Adler, 1983a). The variables were being identified as frequently used ones in the

cross-cultural studies research variables in the literature. However, "behaviors," "value," and "performance" variables were identified as the ones that were vital to measure and explain the cross-cultural impact on the managers (Hofstede, 1980, 1983, 1984). Thus, the three variables were utilized for this research to measure and explain the cultural influences on Korean IS expatriate and American IS managers in the banking industry.

### **Convergence Versus Divergence**

Convergence (or universalist) hypothesis contends that managers are subject to follow industrial norms, attitudes and behaviors in order to comply with the trend of industrialization of the world (Kerr, Dunlop, Harbison, & Myers, 1954). On the other hand, divergence (or culturogist) hypothesis argues that managerial differences will remain continually around the world as long as differences in culture exist. Convergence perspective by Black & Porter (1991), Kerr, Dunlop, Harbison, & Myers (1954), Mendenhall & Oddou (1985), Miller & Doyle (1987), Negandhi & Prasad (1971) and Tung (1981) dominated international management thought during the 1950s in the U.S. These researchers believed that international differences in management practices would disappear as countries "converge" and become equally industrialized. On the other hand, culturogists (Bass & Berger, 1979; Emory, 1985; England & Lee, 1974; Griffeth, Hom, DeNiSi, & Kirchner, 1980; Haire, Ghiselli, & Poter, 1966; Hofstede, 1980, 1984; Hofstede, 1983; McClellnad, 1961; Munson & McIntyre, 1979; Redding & Casey, 1976; Ruben & Kealey, 1979; Whitley & England, 1977) were opposite to the universalists. They believed that managerial differences would be a permanent characteristic for different culture.

### **Cultural Variables**

Cultural variables uniquely influence Korean IS expatriate and American IS managers. The commonly used cultural variables in the literature as follows: history (Haire, Ghiselli, & Poter, 1966; Malinowski, 1960), language (Hoebel, Frost, & Spencer, 1976; Worf, 1956), religion (Triandis, 1972; Webber, 1969), political system (Huntington, 1973), ethnicity (Katona, Strumpel, & Zahn, 1971), general economic level (Harbison & Myers, 1960), and geographical propinquity (Haire, Ghiselli, & Poter, 1966). Dymsha and Negandhi (1983) explained that the managerial behaviors of American managers in the U.S. compared to those in a foreign country and compared the relationship between managerial behaviors. Mendenhall and Oddou (1985) explained that even though managerial behavior is not the only determining factor of performance, it is an important variable. Lincoln and Gerald (1978) have researched cultural differences in the Asian nations' organizations. They found that Confucianism ethics in Korean managers favor vertical social structures, and the vertical differentiation of the organization's structure had positive effects on the personal ties and work satisfaction of the Korean managers. On the other hand, horizontal differentiation had negative effects on personal ties and work satisfaction for Korean managers.

### **Motivation and Job Satisfaction**

Successful IS managers are depending on their performance. Performance of managers, then, is influenced by the rewards, which managers desire to have in their work situation and by their perceptions of the degree to which their job expectations are being satisfied. Thus IS

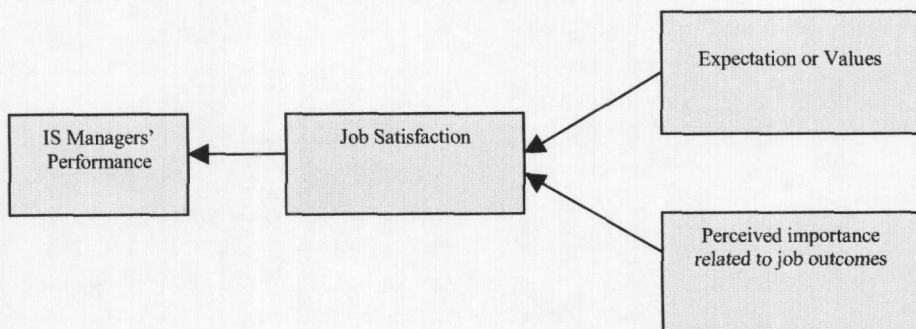
managers' performances are influenced by the levels of their work attitude, motivation and job satisfaction (Kanungo & Wright, 1983). As shown in Figure 1, Korean IS expatriate - and American IS managers' motivation and job satisfaction are determined by the interaction between the attitude and value which the IS managers have toward their jobs, and values which they have in relation to job outcomes. The values of IS managers of two nations to job outcomes are culturally determined mainly with the relative importance of intrinsic versus extrinsic job outcomes. Kelley, Whatley, & Worthley (1987) developed the research design model that separates cultural effects from other variables. As shown in Figure 2, a research model was designed according to Kelley, Whatley, & Worthley's (1987) concept and modified to measure only cultural variables influencing both American and Korean IS managers in the organizations. American economic, political and legal environments were separated in measuring the managers' performances, value and job satisfaction. Non-cultural variables of American economic, political, and legal environment with dotted

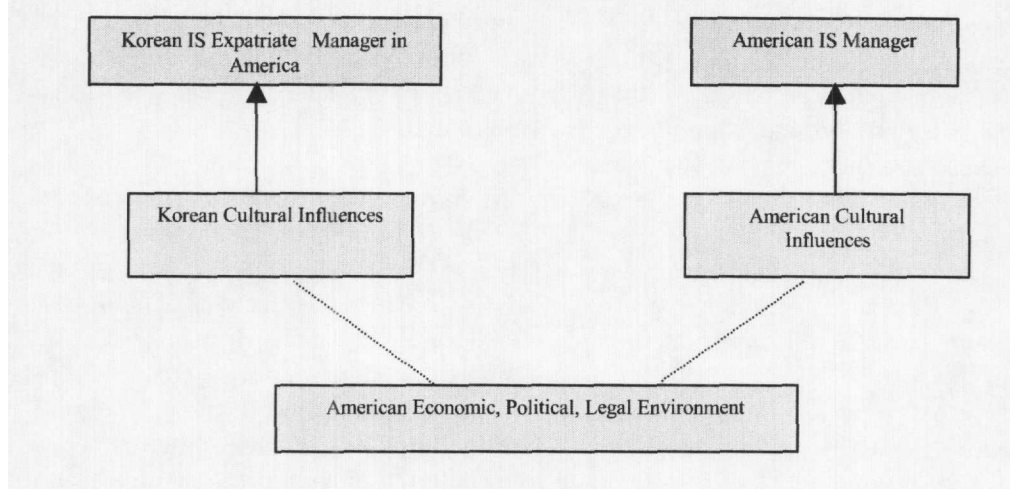
lines represent that they do not affect IS managers' performance, value and behaviors, but Korean and American cultural influences with solid arrow lines, each nation's IS managers will be affected and measured.

### Explanation for Differences of Managerial Behaviors

Researchers in the area of cross-cultural studies explained why managers show different behaviors in the different environment. Ajifuruku & Boddewyn (1970) explained similarities and differences by using cultural, economic, psychological and sociological variables. These researchers claimed that out of the four variables, cultural variables have substantial influences in managerial behaviors. Harbison, & Myers (1960) divided managerial similarities and differences into three categories: economical, psychological, and sociological. Gudykunst, Yoon, & Nishida (1987) found that Korean managers have a collectivistic culture, and American managers have a very individualistic culture based on Hofstede's study (1983). Hofstede

Figure 1: Performance of IS managers



*Figure 2: Research design for the isolation of cultural influences from other variables*

(1980, 1984) classified national culture into four dimensions: power distance, uncertainty avoidance, collectivism versus individualism and masculinity versus femininity (1983). Noburn, Birley, & Dunn (1990) classified it into four different perspectives: contextual (Negandhi, 1983, 1973, 1971), behavioral (Davis, 1971; Hofstede, 1980, 1984, 1983; Nath, 1986), environmental (Farmer & Richman, 1964, 1965), and situational (Boddewyn, 1966; Haire, Ghiselli, & Poter, 1966; Peterson, 1972). In contextual environment, Negandhi (1983; 1973) argued not the cultural specificity, but considered factors such as corporate size, location and market complexity to be at least equally important to a nation's culture. In environmental, Farmer and Richman (1964, 1965) suggested that there are constraints on managerial influence by socioeconomic, political, legal and technical factors. Nath (1986) also explained that the behavioral approach explains managerial behavioral patterns. Thus, in behavioral approach, attitudes, beliefs, value systems and need hierarchies are functions of a given culture

of a society. On the contrary, some cross-cultural management researchers claim that there is increasing evidence to support the contention that managerial practices, behavior and effectiveness are as much, if not more, functions of such contextual and environmental variables as they are of socio-cultural variables (Boyd, Ralph, & Stanley, 1977; Negandhi, 1983, 1973).

### Measurement of Values and Culture

In this research, values and culture are important variables in measuring performance and job satisfaction of the groups of two national IS managers. Individuals have their values and the values can be used to compare individuals. On the other hand, culture compares ethnic groups such as between American and Korean IS managers. Culture includes systems of values and values are among the building blocks of culture. Some cultural variables are closely related to specific behavior of managers (Fishbein & Ajzen, 1972, 1975). On the other hand, other cultural variables such

as attitudes and values are not closely related to specific behaviors. Thus values are an attribute of individuals and collective people of a nation. On the other hand, culture assumes collective people of a nation or a country. Therefore, culture would be one of the main variables used in measuring the behaviors of IS managers.

## RESEARCH GOALS AND OBJECTIVES

As Bonini and Adams (1991) and Dickson and DeSanctis (1986) suggested, cross-cultural factors with an empirical methodology pertaining to IS managers' satisfaction and motivation in comparative management studies are very important subjects in the area of IS literature. However, a cross-culturally related topic such as cross-cultural influence on IS managers and IS expatriate managers has been receiving little attention in the IS literature. Therefore, this research may have significance in the following three ways for cross-cultural studies for the behaviors of IS managers. First, comparative studies of Korean IS expatriate and American IS managers' behaviors and values pertaining to their job satisfaction and performance would provide a contribution to the existing IS literature because there were not many studies in this area. Previous researches have emphasized cross-cultural behaviors only with IS managerial thoughts developed in America. Furthermore, there were few cross-cultural studies based on Korean IS expatriate and American IS managers. This research has attempted to measure the influence of both national IS managers' cultural impact on their behaviors, attitudes and values. Second, this research may explain the adaptation of Korean IS expatri-

ate managers' attitudes and value systems toward their organizations, which are different from those inherited and developed by their traditional culture. In other words, this study attempted to analyze how values and behaviors of Korean IS managers are sustained or changed to meet different cultural factors in which IS managers are operating. These factors are important because those values and behaviors are closely related to the job satisfaction and performance of IS managers in their organizations. In addition, IS literature usually has not paid much attention to expatriate managers' cultural factors in explaining the adapting behaviors of Korean IS expatriate managers to new cultural situations. The final contribution may be the examinations of Hofstede's (1980, 1984) four cultural dimensions: individualism versus collectivism, femininity versus masculinity, uncertainty avoidance and power distance. As a result, this research was designed to examine cross-cultural managerial performances, values and job satisfaction on both Korean IS expatriate managers and American IS managers in the banking industry. This research was conducted to examine the following goals and objectives:

1. To examine the differences and similarities of the cultural influences on American IS and on Korean IS expatriate managers. Five job descriptive variables such as work, supervision, promotion, pay and coworkers—were used to test the first objective. Self-rated performance and values were also used to examine the uniqueness and similarity of the groups of two national IS managers.
2. To examine the dimensions of the culture between the two groups of national IS managers. Using 35 questions in the questionnaire, the dimensions of individu-

alism versus collectivist, uncertainty avoidance, power distance, work role of femininity and masculinity environment were tested.

3. To examine Korean IS expatriate managers to determine if they have adapted American managerial practices or if they have enforced their own culturally oriented policies at the personal level and at the organizational level of the organizations.

## RESEARCH HYPOTHESES

Not many studies have attempted to examine American IS - and Korean IS expatriate managers (Black & Porter, 1991) who deal with different environments, internal and external rewards, physical working conditions, and relationship with co-workers, and job performance in the banks located in the U.S. As shown in Table 1, the hypotheses examined the goals and objectives of the research aimed at measuring the cross-cultural influences on IS managers' behaviors and attitudes. With different cultural backgrounds, IS managers would want to have different organizational policies, and regulations to meet their culturally specific values, performance and

behaviors (Hofstede, 1980, 1984).

H<sub>1</sub>: The effects of organizational forms on IS managers' values, behaviors, and relations are culture-specific. Culturogists such as England & Lee (1974), and Hofstede (1983) explained that managerial differences in values, behaviors, and relations will remain permanent around the world as long as there are differences in cultures of nations. Hofstede (1980, 1984) also found that American IS managers were weak uncertainty avoidance, while Korean IS expatriate managers are strong uncertainty avoidance. In addition, the job expectations of IS managers would be determined by the values that the managers have in relation to the various job outcomes. These values would be culturally determined.

H<sub>2</sub>: Cross-cultural influences between the groups of two national IS managers studied lead to measurable differences in their cognitive value systems pertaining to job satisfaction and performances. Hofstede (1980, 1984) explained that expatriate managers from Korean and American managers would display measurable differences in the values systems about job satisfaction and performances in their organization. Thus, the two groups may have different levels of satisfaction on their job and as a result, they may per-

*Table 1: Relationships between Research Goals and Objectives and Hypotheses*

Research Goals and Objectives	Hypotheses
Goals and Objectives 1	H <sub>1</sub> , H <sub>2</sub> , H <sub>3</sub> , H <sub>4</sub> , H <sub>5</sub> , and H <sub>7</sub>
Goals and Objectives 2	H <sub>6</sub> , H <sub>10</sub> , H <sub>13</sub> and H <sub>14</sub>
Goals and Objectives 3	H <sub>8</sub> , H <sub>9</sub> , H <sub>11</sub> , and H <sub>12</sub>

form differently on the job.

H<sub>3</sub>: American IS managers would place greater emphasis on intrinsic job factors than Korean counterparts, whereas Korean IS managers place relatively more importance on extrinsic job factors such as working conditions and fringe benefits. Kanungo & Wright (1983) explained that American managers are likely to emphasize the protestant ethic, which places high value on work for its own sake. Thus, intrinsic job outcomes such as autonomy, independence and achievement are likely to be valued highly. Korean expatriate managers come largely from a more authoritarian family and educational system with emphasis on a Confucianism ethic. Such background de-emphasizes work ethic and places more emphasis on family (Hofstede, 1980, 1984, 1983; McClelland, 1961). Thus, Korean IS expatriate managers are likely to put more emphasis on the importance of extrinsic job outcomes.

H<sub>4</sub>: Korean IS expatriate managers have job value and behavior profiles that are different from those of the Americans IS managers. Korean IS expatriate managers are influenced by Confucianism work ethic. Thus, they are expected to keep obedience to authority and to the group, to achieve the obligation (England & Lee, 1974).

H<sub>5</sub>: American IS managers working for companies viewed as prestigious by others have greater job satisfaction than those working for less prestigious companies. England & Lee (1974) indicated that American managers place higher importance on the organizationally and interpersonally mediated intrinsic job outcomes. Therefore, American IS managers would expect greater job satisfaction when the company has the high prestige.

H<sub>6</sub>: Korean IS expatriate managers have greater job satisfaction than Ameri-

can IS managers when a bonus is paid for extraordinary performance. As mentioned in Hypothesis 3, Kanungo & Wright (1983) explained that one ethnic group may place value more on extrinsic job outcomes, and the other group may attach relatively more importance to intrinsic job outcomes.

H<sub>7</sub>: Korean IS expatriate managers use a greater percentage of their free time for job-related activities than American IS managers. Kanungo & Wright (1983) explained that intrinsically oriented management would work for achievement at work and are more likely to work in job-related activities in their free time. Therefore, Korean IS expatriate managers would make use of their free time for job-related activities because of their integrity and loyalty to their organization in comparison to the counterpart of American IS managers (Hofstede, 1980, 1984).

H<sub>8</sub>: Korean IS expatriate managers are more likely than American IS managers to exhibit a paternalistic value orientation toward the organization for which they work. Cole (1979) stressed that paternalistic values would more likely be present in Korean managers than in American managers. In other words, Korean IS expatriate managers would show personal caring relationships between co-workers (Edwards, 1979).

H<sub>9</sub>: Korean IS expatriate managers are more integrated in a network of personal affective relationships with co-managers than American IS managers. Edwards (1979) explained that Korean and American workers differ in relation to their personal ties with co-workers. Thus for Korean IS expatriate managers the work relationships between superiors and subordinates have a personal and family relationships which one would hardly find in American IS co-workers.

H<sub>10</sub>: American IS managers experi-

ence a generally higher level of job satisfaction than Korean IS expatriate managers. The protestant work ethic would place emphasis on striving for more than what is currently possessed, while Confucianism would emphasize contentment with what they have now (England & Lee, 1974). Therefore, Korean IS expatriate managers would likely be less satisfied with their jobs than that of American IS managers. Strong work values raise expectations and thereby American IS managers are more satisfied with the existing level of reward. The gap between expectation and achievement accounts for relative dissatisfaction.

H<sub>11</sub>: Korean IS expatriate managers are less satisfied with their organizational involvement than American IS managers. American IS expatriate managers would likely be more satisfied with their organizational involvement than that of Korean IS managers. Strong job involvement raises expectations and thereby managers are more satisfied with the existing level of reward (Cole, 1979). The gap between expectation and achievement accounts for relative dissatisfaction in their organizational involvement.

H<sub>12</sub>: IS managers in different societies and with different cultural backgrounds acquire different expectations regarding work organizations. Marsh & Manari (1977) suggested that paternalistic values such as company housing and life-time employment and close relationships between subordinates and superiors raise higher expectations. Thus, Korean IS expatriate managers would expect higher or different expectations from those of American IS managers in the organization.

H<sub>13</sub>: Masculine cultures are more effective than feminine cultures in absorbing and diffusing imported IS technology in organizational contexts. Masculine culture's value in more traditional societies sets a

limit to the technology transfer possibilities compared to that of feminine societies. Crowley (1973), Herzberg (1957, 1959) and Hofstede (1980, 1984) explained that masculine cultures emphasize advancement, training, up-to-datedness, adopting new IS technology and working on problems to the organization. On the other hand, feminine cultures emphasize friendly atmosphere, position security, physical conditions, cooperation, and co-worker relations in an organization.

H<sub>14</sub>: Organizations located in individualistic cultures are more successful than organizations located in collectivistic cultures in their propensity to absorb and diffuse imported IS technology. The collectivist value in more traditional societies sets a limit to the technology transfer possibilities compared to that of individualistic societies. There is an obvious relationship between the organization's technology and position of its members on the individualism and collectivism continuum. Technologies developed in individualist settings presuppose an individualist mentality in managers and workers (Hofstede, 1980, 1984, 1983; Triandis, 1971, 1989). On the other hand, the collectivist value pattern in more traditional societies sets a limit to the technology transfer possibilities.

## RESEARCH METHODOLOGY

### Sample Subjects

This research was conducted by using IS managers, including data processing managers, operation managers and check processing managers in American and Korean banks and their branches located in the United States. Those banks are using computer-based information systems in order to process and to perform their daily



transaction processing function such as automated teller machines (ATMs), loan decision making systems and check processing systems and other information resources processing. Numerous researchers (Miller & Doyle, 1987; Scott, 1988; Singleton, McLean, & Altman, 1988) have used the banking industry as an information systems research institution in the literature. The banking industry can uniquely represent American IS managers and Korean IS expatriate managers in which this research attempts to study their goals and objectives. Sampled banks and IS managers were chosen from *Thomson Bank Directory* and *The Rand McNally Bankers Directory*. The sampled banks were selected from seven states: California, Washington, Florida, Pennsylvania, Illinois, Texas, and New York. These states are the ones that have Korean banks and American banks as well. Based on the number of banks available in the United States, the numbers of sampled banks were determined. In particular, every fifth American bank in the *Thomson Bank Directory* and *The Rand McNally Bankers Directory* were selected. On the other hand, for Korean banks, all the banks in the directory were selected. Number of IS managers selected from each bank was different since all the IS managers including operations, check processing and data processing managers were chosen. As a result, 567 American IS managers, and 126 Korean IS expatriate managers were selected respectively from those seven states.

### Research Instrument

The research instrument includes a cover letter and a questionnaire. The research instrument consists of a questionnaire of 35 questions. As suggested by Kerlinger (1973), more than 10 times the

number of items in the questionnaire, 945 questionnaires were sent to the selected subjects. As shown in Table 2, 19 predictors used in this study were as follows:

1. Organizationally mediated (8 questions) variables such as communications, job-related stress and participation in decision-making.
2. Interpersonally mediated (5 questions) variables are job variety, and interpersonal relations.
3. Internally or personality mediated (6 questions) attributes are independence and achievement.

On the other hand, the criterion variables of value, job satisfaction and performance were measured by five, five and three questions, respectively. The questionnaire has two parts. In Part I, each question was answered using a 5 point-scale ranging from 1 (Of Very Little Importance: VLI) to 5 (Of Utmost Importance: UI). This questionnaire also contains three questions to evaluate self-productivity, self-performance, and self-effort of IS managers. The purpose of three self-reported-ratings in the questionnaire was to examine the predictive validity. In Part II, there were seven demographic questions such as number of years working in the organization and in the current position, sex, education, age, nationality, and total assets of bank. The seven demographic variables were used to measure the devotion of IS managers and loyalty toward their organization. In addition, Table 2 shows the relationships between the variables and their item numbers in the questionnaire with their sources in the literature.

### Methodology of Data Analysis

The data analysis has purposes as follows: to evaluate the objectives in con-

Table 2: Measures Used in the Study

Variables	Item Numbers in the Questionnaire	Sources
<b>Predictor Variables:</b>		
<b>Organizationally Mediated:</b>		
Participating in decision-making	10, 11	Sekaran & Martin (1982) White & Ruh (1973)
Communication	12	Price (1972)
Sound company policies	25, 27, 28	Kanungo & Wright (1983); Hofstede (1983)
Self-esteem from job setting	1	Quinn & Shepard (1974)
Job-related stress	15	Lyon (1971)
<b>Interpersonally Mediated:</b>		
Job variety	26	Sekaran and Martin (1982)
Interpersonal relations	9, 13	Sims, Szilagyi, & Keller (1976)
Respect and independence	4, 22	Kanungo & Wright (1983)
<b>Internally Mediated:</b>		
Responsibility and independence	2, 3, 5	Sekaran & Martin (1982)
Achievement	3, 7, 8	Steers & Braunstein (1976) Steers & Braunstein (1976)
<b>Criterion Variables:</b>		
Values	6, 13, 14, 17, 28	Sekaran (1983)
Job satisfaction (Pay, promotion, coworkers, supervisor, work)	13, 16, 21, 23, 24	Hofstede (1980, 1984) Smith, Kendall, & Hulin (1969)
Performances (Self-rated performance)	18, 19, 20	Porter & Lawler (1968)

junction with the values, job satisfaction and performances of the groups of two national IS managers' activities; to evaluate and analyze the psychometric properties of the instrument; and to examine the adequacy for cross-cultural studies from those IS managers. Thus, this research followed three phases. In Phase 1 of descriptive statistics, Korean IS expatriate and American IS managers' values, job satisfaction and performances are measured by the 28 questions with a 5-point Likert scale, ranging from 1 (Of Very Little Importance: VLI) to 5 (Of Utmost Importance: UI). Since Montazemi (1988) argued that unweighted scores were validated as reliable results and highly correlated to weighted scores, the unweighted scores were used in this study. The IS managers' values were measured by eight questions of "organizationally mediated" variables. In addition, IS managers' values were measured using five questions of "interpersonally mediated" variables and six questions of "internally mediated" variables. Job satisfaction also used the

same three groups of mediated variables. Finally, performance was measured based on effort, productivity, and performance. Those three criterion variables were measured by their own self-evaluated variables. This research then compares the results with those of the independent variables which support them for the two groups of national IS managers. In phase 2, the reliability and construct validity of the instrument were tested by utilizing Cronbach's  $\alpha$  tests, Pearson's product-moment correlation coefficient analysis and factor analysis (Churchhill, 1979; Cohen, 1977; Cronbach, 1951). Content validity was tested through an exhaustive literature research to include representative questions for this research design. After developing the research instrument, it was pretested by 20 faculty and staff members to follow the suggestions made by Hunt, Sparkman, & Wilcox (1982). In addition to that, the instrument was corrected and edited according to the suggestions from the respondents of the pretest. The coefficient of

reliability tells whether the instrument is consistent in what it does. The cut-off point of Cronbach's  $\alpha$  ranges from 0.60 to 0.80 for this research analysis (Churchill, 1979; Cohen, 1977; Cronbach, 1951; Ives & Olson, 1984; Nunnally, 1978). When the alpha is below the range of 0.60 to 0.80 out of 1.00, the corresponding item(s) was deleted from the instrument. After the Cronbach's  $\alpha$  test, a factor analysis was tested with those items which are reliable variables. Coefficient of validity tells whether the instrument is doing what a researcher believed it was doing (Montazemi, 1988). In doing the construct validity, this research used the cut-off point at 0.45. For the content validity, internal consistency of the instrument would be tested by examining the inter-item correlations coefficient at 0.05 level (Doll & Torkzadeh, 1988; Doyle & Becker, 1983). In order to keep the variables in the questionnaire the instrument should have passed the basis based on the results of the validity and reliability tests. Montazemi (1988) also suggested that to measure the homogeneity of the questionnaire, calculate the correlation coefficients for each pair of scales for each factor. If the coefficients are significant at  $p$ -value  $> 0.0001$  level, these coefficients indicate that the questionnaire is internally consistent. In addition, to measure the predictive validity or criterion-related validity of the questionnaire, three self-rated performance criterion variables were utilized.

In Phase 3 of regression analysis and ANOVA Test, this study also examined correlation of values, satisfaction and performance between the two national IS managers. The correlation coefficient of the variables that measure the values with the dependent variables was measured and the suggested cut-off point (Dunn, Norburn, & Birley, 1985) of each coefficient is equal to or greater than 0.3. For regression analy-

sis, separate regression equations were used between each dependent variable (value, job satisfaction and performance) with the independent variables. All predictor variables were regressed without a predetermined order, thereby variables were included sequentially into the equation based on the respective contribution of each predictor to explained variance in the dependent variables. This regression procedure does not assume a definite causal ordering among the variables, and therefore would identify the most powerful independent variables of value, job satisfaction and performance. As a result, a stepwise regression was calculated and used to show the unique marginal contribution of criterion variables in terms of change in  $R^2$ . Besides, to measure criterion-related validity, cross-validated regression analysis procedures were employed. This technique was used to provide an average measure of the degree of association ( $R^2$ ) between a set of predictor variables and the criterion measures within each culture. In addition, ANOVA analysis was conducted. Through the multivariate analysis of variance, dependent variables, job satisfaction and performances of the two national IS managers were analyzed. The differences and similarities based on the convergence hypothesis and divergence hypothesis were examined.

## DATA ANALYSIS

### Phase 1: Descriptive Statistics

Through the research survey, a total of 296 valid responses (usable response rate of 31.3%) were received from the sampled subjects, and were used for the data analysis. Twenty-eight variables with their abbreviations used in the research are

in Tables 3 and 4. The 14 hypotheses used to test the objectives of the research aimed at measuring the cross-cultural influences on the IS managers' performances, job satisfaction and managerial values. Since the usable answers, 296, were larger than 30, according to the central limit theorem, the response distribution would be normal. Out of 236 American respondents, 63.6% were male, while out of 60 Korean IS expatriate managers, male response rate was 60%. In the education category, 28.3% respondents had a bachelor's degree in the U.S., while 20 out of 60 subjects had a bachelor's degree from Korea. In the age category, the majority of American IS managers were between 39 and 49 years old. On the other hand, the majority of Korean IS expatriate managers were between 29 and 39 years old. In the category of the total assets in the banks, 80.9% of American banks had over \$50,000,000, whereas, 88.3% of Korean Banks were in that category. As shown in Tables 3 and 4, mean values of combined descriptive statistics for 28 variables of IS managers' value, job satisfaction and performance ranged from

2.97 to 4.52. Standard deviations (Std. Dev.) ranged from 0.56 to 1.05. Out of the mean value, "The feeling of achievement of your job performance (PERF)" for American IS managers was the variable that has the highest mean value with the next to the lowest standard deviation of 0.57, while the question item "The opportunity to develop close friendship (FRID)" has the lowest mean value. On the other hand, for the Korean IS expatriate managers, "The opportunity for personal growth and development (GROW)" was the variable that has the highest mean value, while the question item "The frequency of your expressing disagreement with supervisors (DISA)" has the lowest mean value with the lowest standard deviation of 0.72. These descriptive statistics are representing some differences between the two groups' characteristics. For the American IS managers, the mode for age is between 39 and 49 years and the average working years in the present position was about 7.5 years. On the other hand, the average age of Korean IS managers was 34 and the average work experience in that position

Table 3: 28 Variables Used in the Research and Their Descriptive Statistics (Questions 1 - 14)

Question Item (Abbreviation)	America Data (n = 236)		Korea Data (n = 60)	
	Mean	Std.Dev.	Mean	Std.Dev.
1. The feeling of self-esteem (ESTM)	4.23	0.60	3.60	0.90
2. The authority connected with your job (AUTO)	3.82	0.78	3.74	0.87
3. The opportunity for personal growth and development (GROW)	4.18	0.71	3.93	0.92
4. The prestige of your job inside the firm (PRES)	3.77	0.74	3.59	0.77
5. The opportunity for independent thought and action (INDE)	4.32	0.64	3.84	0.94
6. The feeling of security (SECU)	4.01	0.77	3.47	0.82
7. The feeling of self-fulfillment (FULF)	4.21	0.63	3.57	0.84
8. The feeling of worthwhile accomplishment (ACCO)	4.35	0.58	3.64	0.89
9. The opportunity to give help to other people (HELP)	4.08	0.64	3.35	0.83
10. The opportunity for participating in the setting of goals (PART)	3.95	0.74	3.36	0.89
11. The opportunity for participation in the determination of method (METH)	3.92	0.65	3.31	0.90
12. The feeling of being informed (INFO)	4.27	0.68	3.28	0.93
13. The opportunity to develop close friendship (FRID)	3.03	0.88	3.17	0.88
14. The amount of time available for personal and family life (PERS)	3.98	0.86	3.21	0.93

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Table 4: 28 Variables Used in the Research and Their Descriptive Statistics (Questions 15 - 28)

Question Item (Abbreviation)	America Data (n = 236)		Korea Data (n = 60)	
	Mean	Std.Dev.	Mean	Std.Dev.
15. The amount of tension or stress on the job (STRE)	3.59	0.88	3.17	0.92
16. The physical working conditions on the job (WORK)	3.43	0.80	3.09	0.73
17. The good working relationship with your supervisor (SUPE)	4.18	0.69	3.47	0.92
18. The feeling of quality of your job performance (PERF)	4.52	0.57	3.69	0.82
19. The feeling of achievement regarding your productivity on the job (PROD)	4.34	0.56	3.36	0.81
20. The amount of your effort you extend on the job (EFFO)	4.01	0.79	3.38	0.86
21. The frequency of your expressing disagreement with your supervisors (DISA)	3.14	0.83	2.97	0.72
22. The prestige of your job outside the company (OUTS)	3.23	0.87	3.35	0.78
23. The opportunity for higher earnings (EARN)	3.97	0.76	3.31	1.05
24. The opportunity for advancement to higher level jobs (ADVA)	3.78	0.86	3.57	1.04
25. The job definition (DEFI)	3.68	0.85	3.17	0.95
26. The amount of variety and adventure on the job (VARI)	3.74	0.79	3.09	0.80
27. The organization's rules (RULE)	3.55	0.76	3.19	0.76
28. The adaptation and diffusion of new information systems technology (TECH)	3.74	0.81	3.06	0.91

was 3.5 years. That implies American IS managers' turn-over rate is smaller than that of Korean IS expatriate managers.

### Phase 2: Reliability and Validity Test

As Kerlinger (1978) and Montazemi (1988) suggested, the reliability for each individual item in the questionnaire was calculated and the reliability coefficient for each item was above 0.80. Thus, this research instrument has proven to be reliable for further analysis without deleting any items from the questionnaire. Hair, Ghiselli, & Poter (1966) described that factor analysis can help to reveal the underlying dimensions which tend to be associated with the variables and to identify the grouping of variables which are most closely associated or aligned with those dimensions. Even though the two tables were not included, the correlations between pairs of 28 items showed that all the items were related statistically significant at a p-value

< .05 level at almost all pairs of the variables in the instrument. Thus, the results have proven that this research instrument has internal consistency. Hair, Ghiselli, & Poter (1966) also explained that factor analysis based on multi-item scales is more reliable than measures based on the original individual items. As a result of that test, four factors were extracted for the American IS managers as significant factors as shown in Table 5. As a cut-off point of eigen value, only those factors with one or larger than one were extracted. For the America data, the underlying constructs of the factors are meaningfully labeled as Performance, Self-Actualization, Accomplishment, and Company-Policy; 43.84% of the total variance for America data was attributed to the four factors. On the other hand, Korea data showed that with the four factors, 61.17% of the total variances was explained. Each eigen value is a summary index of how much of the variance in the initial correlation matrix is accounted for

by the associated factor. Thus, in conclusion, these four underlying constructs represent those underlying factors very well. Hair, Ghiselli, & Poter (1966) and Kerlinger (1978) explained that an absolute value of 0.30 or above for the loading factor of the factor analysis is regarded as significant for this kind of the research. Even though those two tables were not included, all the loading of the items was greater than the level of the minimum standard of 0.30 at least on one factor. The calculated reliability measures both internal reliability and consistency when using the same instrument to measure similar constructs. Since all items were reliable, elimination of items was not a necessary step in the study. Construct validity means that a measure is a valid measure of a construct if it relates to other measures of this construct and to measures of different constructs in the expected manner. Kerlinger (1978) explained that factor analysis is the most important of construct validity tools. In the Item-Factor Correlations analysis, using Varimax Rotated Factor Loading, for America data, Factor 1 was loaded significantly in the

variables such as ESTM, SUPE, PERF, PROD, EFFE, ACCO, PART and INFO. For the Factor 2, these variables such as RULE, HELP, FRID, PERS, STRE, WORK, DISA, and TECH were significantly loaded. For Factor 3, distinctly loaded variables were PRES, SECU, ADVA, DEFI, METH, OUTS, and EARN. For the Factor 4, the significantly loaded variables were included FULF, AUTO, GROW, INDE, and VARI. For Korea data, Factor 1 was loaded significantly by variables such as AUTO, PERS, STRE, WORK, PERF, DISA, EARN, and ADVA. Factor 2 was loaded significantly in the variables such as HELP, PART, METH, INFO, FRID, SUPE, PROD, EFFE, and VARI. Factor 3 was loaded significantly in the variables such as ESTM, GROW, PRES, INDE, SECU, FULF, and ACCO. Finally, for Factor 4, OUTS, DEFI, RULE, and TECH are the ones that were loaded significantly. Thus, the findings are validating the 28 variables as measures of four distinct constructs for Korean IS and American IS managers. To measure the predictive validity or criterion-related va-

Table 5: Factor Statistics

Factors*	America Data		Korea Data	
	Eigen Value	% of Variance	Eigen Value	% of Variance
Factor 1	6.612	23.61	10.816	38.63
Factor 2	2.344	8.37	2.468	8.81
Factor 3	1.762	6.29	2.213	7.90
Factor 4	1.558	5.56	1.629	5.82
Total		43.84		61.17

Factors\*

Factor 1: Performance

Factor 2: Self-Actualization

Factor 3: Accomplishment

Factor 4: Company-Policy

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Table 6: Independent Variables that Entered and Stayed in the Stepwise Regression Analysis of Values, Job Satisfaction and Performance

America Data (n = 236)											
Value				Job Satisfaction				Performance			
Variable	β Value	R <sup>2</sup> After Entry	Prob. > F	Variable	β Value	R <sup>2</sup> After Entry	Prob. > F	Variable	β Value	R <sup>2</sup> After Entry	Prob. > F
PRES	.1251	.0578	.0012	HELP	.2496	.1020	.0001	PART	-.1346	.0443	.1033
VARI	-.1453	.1251	.0031	ACCO	.1809	.1759	.0044	INFO	.2027	.1027	.0432
HELP	.2681	.2539	.0019	RULE	-.1247	.2157	.0037	VARI	-.1516	.1505	.0247
EARN	-.1087	.2984	.0006	AUTO	.1435	.2638	.0021	HELP	.2099	.2060	.0106
ADVA	.1134	.3286	.0006	SUPE	-.1442	.3002	.0016	DEFI	-.1578	.2556	.0052
				FRID	-.1552	.3349	.0012				

lidity of the questionnaire, the three self-rated performance criterion variables were utilized; the test result showed that correlation of each item was highly correlated to the self-rated items.

Phase 3: Regression Analysis and ANOVA Test

In this phase, a multiple regression procedure was utilized. This method generates an average measure of the degree

of association (R<sup>2</sup>) among the criterion variables, IS managers' managerial values, job satisfaction and performances, and predictor variables within and across the two cultures. It is assumed that there is no interaction and correlation among the predictor variables. In this analysis, three mediated variables (organizationally, interpersonally, and internally) were used to predict the three criterion variables shown in Table 2. The coefficients resulting from standardized data of the regression analy-

Table 7: Independent Variables that Entered and Stayed in the Stepwise Regression Analysis of Values, Job Satisfaction and Performance

Korea Data (n = 60)											
Value				Job Satisfaction				Performance			
Variable	β Value	R <sup>2</sup> After Entry	Prob. > F	Variable	β Value	R <sup>2</sup> After Entry	Prob. > F	Variable	β Value	R <sup>2</sup> After Entry	Prob. > F
PRES	.1251	.0578	.0012	ADVA	-	.0793	.0307	HELP	-	.1160	.0089
VARI	.2143	.1481	.0122	PART	.1593	.1433	.0131	PRID	.2296	.1840	.0039
PRES	-	.1907	.0092	HELP	.1766	.1783	.0123		.1763		
DEFI	.1773	.2308	.0068	SUPE	-	.2113	.0110				
ADVA	.1483	.0813	.0300	PROD	.1566	.2463	.0088				
	-			DISA	.1525	.2908	.0050				
	.1644			PRES	.2176	.3284	.0034				
					.2233						
					-						
					.1759						



sis are called beta coefficients. The beta coefficient reflects the impact on the criterion variable of a change of a standard deviation in 10 independent variables from the three mediated variables. Then, beta coefficients were used as the relative importance of 10 individual independent items of the three mediated variables in this study. Separate regression equations were used to analyze the relationship between each dependent variable of the three criteria (value, job satisfaction and performance) with independent variables. All predictor variables were included sequentially into the equation based on the respective contribution of each predictor to explained variance in the dependent variables. For this purpose, as shown in Tables 6 and 7, the stepwise regression analysis was tested, and then predictor variables that significantly contributed were identified. For America data, PRES, VARI, EARN, HELP, and

ADVA variables in IS managers' managerial value criterion showed significant F-value at the level of 0.003 or above. For job satisfaction criterion, HELP, ACCO, RULE, AUTO, SUPE, and FRID showed significant F-value at the 0.004 level or above. For performance, related variables also showed a significant level of F-value at the 0.040 level or above. On the other hand, in the value criterion, VARI and EARN showed negative signs which means that those two variables of the value criterion are the opposite of what was expected from American IS managers. In the job satisfaction criterion, HELP, ACCO, and AUTO showed a strong positive impact on job satisfaction, which was an expected result in this study. In the performance criterion variables, PART, VARI and DEFI variables also indicated that American IS managers in the banks do not desire or value too detailed a description of

Table 8: Variables Contributing to ANOVA on Value, Job Satisfaction, and Performance Criterion

Korea Data (n = 60)			America Data (n = 236)		
Variables	R <sup>2</sup>	Prob. > F	Variables	R <sup>2</sup>	Prob. > F
Value:			Value:		
SECU	0.1498	0.0858	SECU	0.1878	0.0003
FRID	0.2356	0.0005	FRID	0.1398	0.0001
PERS	0.1503	0.0846	PERS	0.2812	0.0001
SUPE	0.3780	0.0001	SUPE	0.3128	0.0001
TECH	0.3249	0.0001	TECH	0.1190	0.0001
Job Satisfaction:			Job Satisfaction:		
WORK	0.2611	0.0030	WORK	0.0433	0.0168
DISA	0.3595	0.0001	DISA	0.0428	0.0178
EARN	0.2337	0.0074	EARN	0.1197	0.0001
ADVA	0.3808	0.0001	ADVA	0.2826	0.0001
Performance:			Performance:		
PERF	0.5616	0.0038	PERF	0.2866	0.0001
PROD	0.7614	0.0001	PROD	0.3278	0.0001
EFFO	0.5711	0.0028	EFFO	0.2948	0.0001



Table 9: Test of ANOVA on Variables of Organizationally, Interpersonally, and Internally Mediated

Variables (Korea Data)	Prob. > F	Variables (America Data)	Prob. > F
<b>Organizationally Mediated</b>		<b>Organizationally Mediated</b>	
Participating in Decision-Making:		Participating in Decision-Making:	
PART	.0127	PART	.0001
METH	.0001	METH	.0001
Communication (INFO)	.0001	Communication (INFO)	.0001
Sound Company Policies:		Sound Company Policies:	
DEFI	.0117	DEFI	.0117
RULE	.0015	RULE	.0015
TECH	.0003	TECH	.0001
Self-Esteem from Job Setting	.0012	Self-Esteem from Job Setting	.0003
Job-Related Stress (STRE)	.0001	Job-Related Stress (STRE)	.0001
<b>Interpersonally or Job Mediated</b>		<b>Interpersonally or Job Mediated</b>	
Job Variety (VARI)	.0008	Job Variety (VARI)	.0001
Interpersonal Relation:		Interpersonal Relation:	
HELP	.0390	HELP	.0001
FRID	.6365	FRID	.0001
Respect and Recognition:		Respect and Recognition:	
PRES	.0001	PRES	.0001
OUTS	.0212	OUTS	.0001
<b>Internally or Personally Mediated</b>		<b>Internally or Personally Mediated</b>	
Responsibility and Independence:		Responsibility and Independence:	
AUTO		AUTO	
GROW	.0004	GROW	.0001
INDE	.0001	INDE	.0001
Achievement:	.1832	Achievement:	.0001
GROW		GROW	
FULF	.1832	FULF	.0001
ACCO	.0001	ACCO	.0001
	.0141		.0141

job definition. On the other hand, the results showed that they strongly desire to have INFO, and HELP. In other words, American IS managers would value helping and having a close relationship among IS managers and IS workers in the organization. For Korean IS expatriate managers in the surveyed banks, variables such as VARI and DEFI showed strong impacts on the criterion variable, managerial value. Thus, IS managers would value more defined rules and policies in the organization and more variation in their job environment. For the job satisfaction, PART, SUPE, and DISA were the variables, which have positive indication on the dependent variable. These predictor variables are significant at the 0.01 level of significance. On the other

hand, ADVA, HELP, PROD, and PRES variables showed negative impact on the job satisfaction of Korean IS expatriate managers. Interestingly enough, literature supported the same result (Cole, 1979) too. For the performance criterion, PRID and HELP showed a mixed result, which was not expected in this study. One explanation may be that Korean IS managers who work in a western country like the U.S. have been changing their values so that they are becoming more individualized compared with those IS managers in Korea. FRID has a strong positive indication on performance, which is not expected in Korean IS managers because this factor usually has shown in the femininity society rather than that of Korea. In comparison

of the two countries for the value criterion, predictor variables entered into the regression analysis have shown very similar results. Through the multivariate analysis of variance (ANOVA) shown in Table 8, dependent variables, value, job satisfaction and performances of the groups of two national IS managers were analyzed. This analysis can identify statistically significant differences by comparing variances due to the treatment effect and the measure of chance errors of the two national IS managers' cultural influences on the value, job satisfaction and performances. This analysis attempted to show what are the differences and similarities based on the convergence hypothesis and divergence hypothesis in cross-cultural studies. Three independent variables describing the criterion variable of value for Korea data have very significant F-values at the level of 0.0005 or 0.0001. For America data, all independent variables of value criterion were very significant at the 0.0003 or 0.0001 level. In addition, for job satisfaction criterion, all five variables were very significant at the 0.0005 or above level for Korea data. On the other hand, for America data, three of five variables for job satisfaction for both the Korea and America data were very significant statistically. Table 9 presents the ANOVA test of three different levels of independent variables belonging to organizationally mediated, interpersonally mediated and internally mediated variables. As expected and supported in the literature (Boyd, Ralph, & Stanley, 1977), Korea data in the organizationally mediated variable were not significant statistically. On the other hand, America data showed that all the variables were very significant at the 0.001 of significance. For the internally mediated variables, those variables for both countries' IS managers were equally significant, except one variable INDE for

Korean IS managers, which indicates that Korean IS managers were not concerned with, nor considered INDE to be an important factor in their organization.

## FINDINGS AND DISCUSSIONS

As shown in Tables 10 and 11, the 14 hypotheses were tested in relation to the objectives of the research aimed at measuring the cross-cultural influences on the IS managers' performances, job satisfaction and values. One of the underlying constructs used in this study is the IS managers' managerial values related to a culture, since this study attempts to determine to what extent culture impacts on IS managers' attitude, value and behavior in their organizations (Alder, 1983b).

H<sub>1</sub>: The effects of organizational forms on IS managers' values, behaviors, and relations are culture-specific. One argument is that individuals are forced to adapt industrial attitudes and behaviors in order to follow with the imperative of industrialization. This is commonly known as convergence hypothesis and its validity has been debated against divergence hypothesis in the literature (England, 1967; England & Lee, 1974; Hofstede, 1980, 1984, 1983; Kelley, Whitley, & Worhley, 1987; Webber, 1969). In this research, the organizationally versus internally mediated variables were tested to support H<sub>1</sub>. Child (1981) found there was convergence at the organizational related variables and divergence at the personal related variables. Whitley and England (1977) said that managers' managerial differences would be permanent as long as differences in culture exist. From Table 3, RULE, SECU, STRE, and TECH are good variables to examine this hypothesis (Hofstede, 1980, 1984, 1983). Thus, IS expatriate manag-

*Table 10: Relationships between Hypotheses 1 - 7 and Variables in the Research Instrument*

Hypothesis	Variables	Researchers
H <sub>1</sub>	Organizationally versus internally mediate	England & Lee (1974); Hofstede (1980, 1984); Kelly & Worthley (1987)
H <sub>2</sub>	Testing value criterion variable	Kanungo & Wright (1983)
H <sub>3</sub>	Organizationally versus internally mediated	McClelland (1961); Hofstede (1980, 1984)
H <sub>4</sub>	Testing value variable	England & Lee (1974)
H <sub>5</sub>	Job satisfaction variable	Lincoln & Gerald (1978)
H <sub>6</sub>	Higher earning variable	Hair, Ghiselli, & Poter (1966); Hofstede (1980, 1984); Lincoln & Gerald (1978)
H <sub>7</sub>	In addition to H <sub>1</sub> , interpersonally mediate	England & Lee (1974); Kanungo & Wright (1983); Lincoln & Gerald (1978)

ers from Korea and American IS managers would display measurable differences in the values, relations, and behaviors in their organization. These behaviors and attitudes would be determined culturally. As shown in Table 9, critical F-values between American IS managers and Korean IS expatriate managers' value systems is significant at 0.0001 levels. For American IS managers, organizationally, interpersonally and internally mediated variables were significant at 0.0001 levels. It was also the case for Korean IS managers at 0.0001

and 0.0004 levels. From Table 12, T-test for organizationally mediated variables was significant at that level too, but internally mediated variables were at the level of 0.0034. Thus, this hypothesis was supported by the data analysis. That is, the effects of organizational forms (types) on the two national IS managers' values, behaviors are culture specific.

H<sub>2</sub>: Cross-cultural influences between the groups of two national IS managers studied lead to measurable differences in their cognitive value systems per-

*Table 11: Relationships between Hypotheses 8-14 and Variables in the Research Instrument*

H <sub>8</sub>	Testing demographic variables such as age and tenure	Lincoln & Gerald (1978)
H <sub>9</sub>	Testing friendship and tenure variables	Lincoln & Gerald (1978); Edwards (1979)
H <sub>10</sub>	Testing friendship, higher earning, advancement and disagreement with supervisors	England & Lee (1974); Lincoln & Gerald (1978)
H <sub>11</sub>	Participation, job satisfaction, and determining methods	Hofstede (1980, 1984); Lincoln & Gerald (1978)
H <sub>12</sub>	Testing value variables	Hofstede (1980, 1984)
H <sub>13</sub>	Testing technology variables	Crowley, Levitin, & Quinn (1973); Herzberg, Mausner, Peterson, & Capwell (1957, 1959); Hofstede (1980, 1984)
H <sub>14</sub>	Disagreement with supervisors, variety and adventure on the job and adaptation of new technology	Hofstede (1980, 1984); Triandis (1971, 1989)

taining to job satisfaction and performances. The job satisfaction and performances of IS managers refer to the orientations and values the two national managers hold with respect to the various job outcomes. The orientations and values are culturally determined. Thus, American IS managers and Korean IS expatriate managers may have different levels of cognitive value expectation on what the job offers to them and may, as a result, be motivated differently on the job. From Table 8, job satisfaction variables, WORK, DISA, EARN, and ADVA were tested against the values of the two national IS managers. The value variable was very significant at the level of 0.0001. Therefore, the job satisfaction factors are not considered very closely related with the value systems of the two societies. For Korean managers, there were 16 managers who did not regard those values as that important in their organization. From Table 8, in ANOVA test, F-value was not significant at all and there were non-linear relationships between the two criterion variables, job satisfaction and performance. On the other hand are those IS managers who responded that the values are important in their organization, as indicated by F-value which was very significant at 0.0001. In value systems per-

taining to performances for the American IS managers, the statistics was very significant at 0.0001 levels. On the contrary, for those IS managers whether they valued value system is important or not, the test results showed that the value pertaining to performance was not significant at all. From Table 12, Scheffe's test also showed that the two national IS managers are quite different in their performance. As literature supported (Haire, Ghiselli, & Poter, 1966; Kanungo & Wright, 1983), American IS managers regarded value system pertaining to job satisfaction and performance as very important as opposed to that of Korean IS managers. Using the correlations from the test results of value variables and self-rated performance variables, the hypothesis was supported.

H<sub>3</sub>: American IS managers place greater emphasis on intrinsic job factors than Korean counterparts, whereas Korean IS managers place relatively more importance on extrinsic job factors such as working conditions and fringe benefits.

American IS managers have the protestant ethic which places high value on work for its own sake. American IS managers viewed work as a central part of their life and as a major vehicle for realizing their self-actualization. Thus, intrinsic job out-

Table 12: T-Test for Predictor and Criterion Variables

Variable	Sheff's Test	Prob>T**	Prob>F
Organizationally Mediated	7.436*	0.0000	0.0623
Interpersonally Mediated	4.627*	0.0000	0.0007
Internally Mediated	6.194*	0.0034	0.8166
Values	n.a.	0.0000	0.0310
Job Satisfaction	n.a.	0.0660	0.0742
Performance	n.a.	0.0000	0.0173

Note: \* Significance level at .05

\*\* Cochran's T-test

comes such as autonomy, independence and achievement were valued highly. Korean IS expatriate managers are traditionally motivated by a more authoritarian family and educational system with emphasis on a Confucianism ethic (Lincoln & Gerald, 1978). Such a background traditionally de-emphasizes work ethic (Hofstede, 1980, 1984, 1983) and places more emphasis on family. Korean IS expatriate managers are expected to put more emphasis on the importance of extrinsic job outcomes. As shown in Table 3, for Korean IS expatriate managers', mean value of internally mediated variables was lower than that of Americans. For interpersonally mediated variables, the mean value between American and Korean IS managers was not significant. However, for organizationally mediated variables in Table 12, T-test between the two groups was significant at the 0.0000 level. Using those predictor variables for testing  $H_3$  resulted in the positive. Therefore, the groups of two IS managers place greater emphasis on either intrinsic or extrinsic job factors.

$H_4$ : Korean IS expatriate managers have job value profiles that are different from those of the American IS managers. Job profiles of IS managers would be determined by the orientations and values the groups of two national managers hold with respect to the various job outcomes. As mentioned in  $H_2$ , Korean IS expatriate managers are traditionally influenced by Confucianism. Thus, they are expected to keep obedience to authority and to group to achieve the obligation (England & Lee, 1974). They also explained that Korean managers place higher importance on the organizationally and interpersonally mediated extrinsic job outcomes rather than those of intrinsic values. Using the ANOVA test shown in Table 8, with value variables, SECU, PERS, SUPE, FRID,

TECH, the significance level was 0.0001 or 0.005 levels except for SECU, and PERS for America data. Two different empirical articles supported that the hypothesized value profiles that are different between the two national IS managers in the literature (Hofstede, 1980, 1984, 1983). From Table 9, value system of American IS managers by using organizationally mediated variables, ESTM, PART, METH, INFO, STRE, DEFI, RULE, and TECH, was very significant (0.0001) in its ANOVA test. The statistics also showed that value and the organizationally mediated variables have positive linear relationship between them. The finding implies that IS managers increase their values toward the organization when they have sound company policy, self-esteem from job setting and less job stress or relief from it. For American IS managers, value and interpersonally mediated variables showed the same result as that of the organizationally mediated variables. The interpersonal variables are statistically significant at the 0.0001 level of significance. Thus, this hypothesis was also supported.

$H_5$ : American IS managers working for companies viewed as prestigious have greater job satisfaction than those working for less prestigious companies. The prestige of the company was measured with OUTS and PRES. The two variables were significant at the level of 0.0001 for both Korean and American IS managers. However, American IS managers showed higher scores on the prestige expressed inside the company. On the other hand, Korean IS expatriate managers showed higher scores on the prestige of the company outside. When testing the correlation between the prestige variables, and the satisfaction variables, the correlation was significant at the 0.0001 level except with FRID with PRES at the 0.0100 level and ADVA with OUTS

at 0.0600 level. On the other hand, for Korean IS managers, only ADVA and DISA with PRES, OUTS at 0.05 and 0.0002 respectively were significant. Thus, the results support the hypothesis. So does the literature (Lincoln & Gerald, 1978).

H<sub>6</sub>: Korean IS managers have greater satisfaction when a bonus is paid for extraordinary performance. Kanungo and Wright (1983) explained that this hypothesis examined variables related to extrinsic versus intrinsic job outcomes. In Table 3, for American IS managers, mean value of EARN (3.97) was correlated with satisfaction variables, and the results were significant at the level of 0.0001. On the other hand, for Korean IS expatriate managers, the mean (3.36) of EARN variable showed the correlation with satisfaction variables, and the statistics are: FRID (0.07), WORK (0.0004), DISA (0.0005), and ADVA (0.0001). When EARN was examined with the performance variables, the results were: PERF (0.003), EFFO (0.002), and PROD (0.14). On the other hand, for Korea data, when EARN was examined with the performance variables, the results were: PERF (0.003), EFFO (0.002), and PROD (0.14). Thus the results do not support the hypothesis.

H<sub>7</sub>: Korean IS expatriate managers use a greater percentage of their free time for job-related activities than American IS managers. Korean IS expatriate managers would make use of their free time for job-related activities because of their integrity and loyalty to their organization in comparison to American IS managers (Hofstede, 1980, 1984). Kanungo & Wright (1983) explained that intrinsically oriented managers would work for achievement at work and are more likely to work in job-related activities in their free time. Thus, it is expected that Korean IS expatriate managers would regard this hypothesis as more

important than American IS managers. There was a substantial mean value difference and F-value was very significant at .0001 levels. H<sub>7</sub> tested the use of Korean IS expatriate managers' free time for job-related activities for integrity and loyalty to their organizations. As a result, the data analysis supported this hypothesis.

H<sub>8</sub>: Korean IS managers are more likely than American IS managers to exhibit a paternalistic value orientation toward the organization for which they work. Hofstede (1980, 1984) also found that American IS managers have a high individualistic and small power distance. On the other hand, Korean IS expatriate managers have larger power distance and lower individualistic. Power distance variable, DISA, was positively related with the formal education, EDUC. As shown in Tables 13 and 14, for Korean IS expatriate managers, number of years in service with organizationally mediated variables and value criterion was very significant. On the other hand, for American IS managers, education with interpersonally mediated and job satisfaction criterion was very significant. Thus, testing greater paternalistic values of Korean IS managers toward their organization using individualistic variables supported the hypothesis.

H<sub>9</sub>: Korean IS expatriate managers are more integrated in a network of personal affective relationships with co-managers than American IS managers. Edwards (1979) explained that Korean and American managers differ in relation to their personal ties with co-workers. For Korean IS managers the work relationships between superiors and subordinates would carry over into personal and family relationships which one would hardly find in American co-workers. For Korean IS managers the work relationships between supervisors and subordinates enable them to

have personal and family relationships, which one would hardly find in American coworkers. The variables SUPE (0.0001) and FRID (0.29) were examined. The mean values also were different: Korean IS managers have 3.15 while that of American IS managers was 3.01. As a result, one can conclude that the hypothesis was supported by the finding.

H<sub>10</sub>: American IS managers experience a generally higher level of job satisfaction than Korean expatriate IS managers. The protestant ethic would place more emphasis on striving for more than is currently possessed. On the other hand, Con-

fucianism would emphasize contentment with what one has now. This would likely provide a higher level of job satisfaction (Kerlinger, 1978). Level of overall satisfaction of IS managers is positively related to the uncertainty avoidance. Their correlation was very strong at a significance level of 0.0001. Motivation for Korean IS managers traditionally comes by personal and individual security. This can be found in wealth and especially in hard work. On the other hand, American IS managers are motivated by individual success, in the form of wealth, recognition and self-actualization. Mean values were significantly dif-

Table 13: F-Value and Significance of Effects: Korea Data

	Question	Age	Gender	Position	Education	Year
Organizationally Mediated Variables:	ESTM	25.83***	2.58*	0.97	0.77	6.61***
	METH	15.11***	1.35	2.05	0.71	16.27***
	INFO	15.49***	0.18	0.92	0.76	12.29***
	STRE	14.77***	0.55	0.25	0.69	6.40***
	DEFI	21.10***	1.64	0.16	1.16	6.15***
	RULE	10.79***	0.53	1.37	1.22	7.93***
Interpersonally Mediated Variables:	AUTO	1.90	1.04	0.31	0.70	0.41
	HELP	1.58	2.84*	1.43	1.34	2.10
	FRID	.061	2.36	1.02	0.60	0.53
	PRES	1.56	2.23	0.93	2.33	2.40
	OUTS	1.74	0.89	0.73	0.74	0.75
	VARI	1.43	0.88	0.30	0.47	2.10
Personally Mediated Variables:	GROW	3.26**	2.09	0.88	0.47	1.05
	INDE	0.97	0.86	0.91	1.01	1.02
	FULF	1.14	1.73	0.90	1.49	0.86
	ACCO	0.76	0.46	1.03	1.11	1.97
Criterion Variables: Value	SECU	1.72	1.34	0.98	1.42	4.11***
	FRID	0.64	2.50	1.10	0.50	0.90
	PERS	1.06	0.62	0.27	0.50	3.97***
	SUPE		4.15**	0.99	1.13	8.91***
	TECH	1.24	0.90	0.69	0.79	4.30***
Criterion Variables: Job Satisfaction	WORK	0.03	0.12	0.97	0.27	1.53
	DISA	1.72	1.36	1.51	0.28	1.97
	EARN	0.79	1.26	0.10	0.15	0.84
	ADVA	0.36	1.38	0.13	1.29	1.05
Criterion Variables: Performance	PERF	.214	1.57	0.52	1.34	1.82
	PROD	4.21**	1.06	0.51	0.73	4.39***
	EFFO	0.86	0.40	0.53	0.10	2.27

Significance level: \*\*\* p < .001 level \*\* p < .01 level \* p < .05 level

ferent as shown in Table 3. Thus testing of the hypothesis was supported by the data analysis.

H<sub>11</sub>: Korean IS expatriate managers are less satisfied with their organizational involvement than American IS managers. Korean IS managers would likely be less satisfied with their jobs than American IS managers. Strong work values raise expectations and thereby the worker is less satisfied with the existing level of reward (Cole, 1979; Lincoln & Gerald, 1978). The gap between expectation and achievement accounts for relative dissatisfaction. Using a T-test and the ANOVA test, testing organizational involvement in relations to job satisfaction was positive. Thus, the hypothesis was supported by the result.

H<sub>12</sub>: IS managers with different cultural backgrounds acquire different expectations regarding work organizations. For American IS managers, for ANOVA test, criterion variables were tested against the organizationally mediated variables. All the variables were significant at the 0.0001 level. For Korean IS managers, for ANOVA test, criterion variables tested against the organizationally mediated variables were tested against the organizationally mediated variables. All the variables were significant at 0.0001 level too. Therefore, this hypothesis was supported. In addition, this hypothesis was supported in the literature (Haire, Ghiselli, & Poter, 1966; Hofstede, 1980, 1984).

H<sub>13</sub>: Masculine cultures are more effective than feminine cultures in absorbing and diffusing imported IS technology in organizational contexts. Masculine societies' cultural values in more traditional societies sets a limit to the technology transfer possibilities compared to that of feminine societies. Crowley (1973), Herzberg (1957; 1959) and Hofstede (1980, 1984) explained that there are sex differences in work goals.

Masculine cultures emphasize advancement, training, up-to-datedness and working on problems central to the organization. On the other hand, feminine cultures emphasize friendly atmosphere, position security, physical conditions, cooperation and co-worker relations. Korean society is more feminine, and American society is masculine (Manhardt, 1972). Herzberg (1957; 1959), Crowley, Levitin, and Quinn (1973), and Manhardt (1972) argued that more important for masculine culture were advancement and earnings. On the other hand, for feminine culture, freedom, co-workers, clearly defined responsibilities, working hours and working conditions, and ample leisure time were important variables. Testing the effectiveness of diffusing and absorbing IS technology in masculine and feminine culture was supportive. Thus, the test from ANOVA and T-test supported the hypothesis.

H<sub>14</sub>: Organizations located in individualistic cultures are more successful than organizations located in collectivistic cultures in their propensity to absorb and diffuse imported IS technology. Technologies developed in American individualist settings assume an individualist mentality in IS managers and workers (Hofstede, 1980, 1984, 1983; Triandis, 1971, 1989). On the other hand, the collectivist value pattern in more traditional societies sets a limit on the technology transfer possibilities. To test this hypothesis, the mean value of variable TECH was used: 3.73 and 3.09 for Korean and American IS managers respectively. The variable TECH was significant at 0.0001 levels. Also the variables deciding masculinity such as VARI (0.0001), DEFI (0.0001) except for DISA were significant statistically. The result implies that Korean society or Korean IS managers are low in individualistic settings. On the other hand, American IS managers were high in



Table 14: *F-Value and Significance of Effects: America Data*

	Question	Age	Gender	Position	Education	Year
Organizationally Mediated Variables:	ESTM	1.60	0.65	2.53*	1.48	0.13
	METH	1.41	1.62	0.24	0.26	1.06
	INFO	0.44	2.50	1.06	1.46	2.10
	STRE	0.35	2.65*	2.10	3.09*	0.63
	DEFI	1.17	1.05	1.28	2.26	0.39
	RULE	0.65	2.59*	0.88	0.80	2.07
Interpersonally Mediated Variables:	AUTO	2.25	0.53		1.27	1.78
	HELP	0.64	1.15	1.82	3.70**	0.64
	FRID	2.35	1.40	2.72*	4.96***	0.97
	PRES	1.25	0.62	2.72*	0.22	1.59
	OUTS	2.29	0.56	1.93	1.11	0.78
	VARI	0.33	0.90	0.40	0.56	0.68
Personally Mediated Variables:	GROW	1.31	0.99	0.60	1.99	0.60
	INDE	1.89	0.61	0.59	2.32	1.42
	FULF	4.92**	2.24	0.34	1.08	3.66**
	ACCO	0.74	2.04	1.30	1.88	1.63
Criterion Variables: Value	SECU	3.28**	4.48**	0.92	2.33	0.15
	FRID	2.36	1.18	2.42*	4.80**	0.90
	PERS	0.24	1.23	0.83	0.62	1.28
	SUPE	0.86	2.58*	1.40	1.90	0.81
	TECH	1.25	2.63*	1.87	2.13	1.01
Criterion Variables: Job Satisfaction	WORK	0.09	4.05*	2.51	6.92***	0.51
	DISA	0.67	0.94	0.25	2.82*	1.35
	EARN	1.17	1.71	0.27	1.38	1.50
	ADVA	3.36**	1.92	0.85	0.16	1.40
Criterion Variables: Performance	PERF	0.84	1.53	0.04	2.47	0.11
	PROD	1.77	0.85	2.31	0.71	0.07
	EFFO	2.72*	1.92	0.42	2.51*	0.9

Significance level: \*\*\*  $p < .001$  level \*\*  $p < .01$  level \*  $p < .05$  level

their individualism as expected through the literature (Hofstede, 1980, 1984; Hofstede, 1983). As a result, the data analysis supported the hypothesis.

## CONCLUSION

This study was supported in the addressed hypotheses except for hypothesis six by the findings of the data analysis and by previous researchers in the cross-cultural studies. Few topics have received special attention from IS professionals and

practicing managers in the people management, especially for cross-cultural related areas. Thus, this research as indicated by Bonini & Adams (1991) and Desanctis & McBride (1986) has attempted to examine and interpret information systems managers' behaviors and attitudes pertaining to the values, job satisfaction and performances between American IS managers and Korean IS expatriate managers who work in the banking industry located in the American territory. For a pretest, the questionnaires were sent to those selected IS managers including data processing man-

agers, and check processing managers in the banking organizations. The valid response rate was 32.3%. For examining those goals and objectives of the study, fourteen hypotheses were developed through the literature research and the hypotheses were tested using the questionnaire of 35 question items. As a research methodology, this research used production moment correlation analysis, factor analysis, regression and ANOVA. For the purpose of examining the reliability and validity of the test instrument, those validity and reliability tests were conducted. Special attention was paid to the point of whether or not Korean IS expatriate managers would change their value system so that they could affect the job satisfaction and their performances in their organization.

Generally speaking, Korean IS expatriate managers still hold their inherited value systems during their overseas assignment. However, there were not many differences from the previous studies done by Child (1981) and other researchers (Hofstede, 1980, 1984; Hofstede, 1983; England, 1967; Haire, Ghiselli, & Poter, 1966). It implies that a further study would be good by adding American IS managers who work in Korea and Korean IS managers who currently work in Korea to the current data. Thus, for the next test, the sample subjects may be drawn from American and Korean computer manufacturing industries located in America and Korea. This study implies that divergence hypothesis in an organization is identified through the research. In addition to this, since some former communist countries in Europe are experiencing difficulties in their economies, it seems an opportune time that the findings of the study of the cross-cultural influences on IS managers be applied to those IS managers in eastern European countries. From a practical standpoint, an or-

ganization should organize and design its structure specifically depending on the cultures of IS managers so that it can improve IS managers' performance, values and job satisfaction through a proper channel of communications, relationships between subordinates and superiors, working conditions, and adequate intrinsic and extrinsic rewards and benefits. As findings have suggested, IS managers' behaviors and attitudes in an organization are determined by their specific cultures. IS managers' involvement in their organizations was identified as one of the important factors for improving their job satisfaction which may improve their performances. An international management of an organization should consider an IS manager's cultural background when the organization provides benefits whether it should be an intrinsic or extrinsic one.

Even though, Korean IS expatriate managers were raised and educated in more collectivistic and traditional settings; they indicated that they are very eager to diffuse and absorb the new IS technology. The result may explain the rapid development of Korean economic structures during the last three or four decades and explain the relatively affluent living conditions they currently have.

As a group of Korean IS expatriate managers, they are adapting their indispensable factors for their organization, but they still keep values inherited from their own cultures and educations. Therefore, this value systems should be applied into an organizational policy in order to maximize IS expatriate managers' job satisfaction and performances as well.

## REFERENCES

- Adler, N. J. (1983a). A Typology of Management Studies Involving Culture.

*Journal of International Business Studies*. 14(2), 29-47.

Adler, N. J. (1983b). Cross-Cultural Management: Issues to Be Faced. *International Studies of Management and Organization*. 8(1-2), 7-45.

Ajiferuke, M., & Boddewyn, J. (1970). Culture and Other Explanatory Variables in Comparative Management Studies. *Academy of Management Journal*. 13(2), 153-163.

Bailey, J. E., & Pearson, S. W. (1983). Development of a Tool for Measuring and Analyzing Computer User Satisfaction. *Management Sciences*. 29(5), 530-545.

Bass, B. & Berger, P. (1979). *Assessment of Managers: An International Comparison*. New York: The Free Press.

Black, J. S., & Porter, L. W. (1991). Managerial Behaviors and Job Performance: A Successful Manager in Los Angeles May Not Succeed in Hong Kong. *Journal of International Business Studies*. 22(1), 99-113.

Boddewyn, J. (1966). *Comparative Concepts in Management Administration and Organization*. Graduate School of Business Administration: Mimio, 12, New York.

Bonini, C., & Adams, C. (1991). School of Business: A Glimpse of the 21st Century. *1991 DSI Doctoral Consortium*. November 22-23, 1991, Miami, Florida.

Boyd, H., Ralph, W., & Stanley, S. (1981). *Marketing Research-Text and Cases* Homewood, IL: Richard D. Irwin, Inc.

Child, J. D. (1981). *Research in Organizational Behavior*. Greenwich, CT: JAI Publishers.

Churchill, G. A. (1979). *Marketing Research: Methodological Foundations*. The Dryden Press, Illinois: Ainsdale.

Cohen, J. (1977). *Statistical Power Analysis for the Behavioral Science*.

New York: Academic Press.

Cole, R. E. (1979). *Work, Mobility, and Participation: A Comparative Study of American and Japanese Industry*. Los Angeles: University of California Press.

Cronbach, L. J. (1951). Coefficient Alpha and the Internal Structure of Tests. *Psychometrika*. 16(3), 297-334.

Crowley, J. E., Levitin, T. E., & Quinn, R. P. (1973). Facts and Fictions about American Working Women. In R. P. Quinn & T. W. Mangione, *The 1969-1970 Survey of Working Condition*, Ann Arbor, MI: Institute for Social Research, University of Michigan.

Davis, S. M. (1971). *Comparative Management: Cultural and Organizational Perspectives*. Englewood Cliffs, NJ: Prentice-Hall.

Dickson, G. W., Desanctis, G., & McBride, D. J. (1986). Understanding the Effectiveness of Computer Graphics for Decision Support: A Cumulative Experimental Approach. *Communications of the ACM*. 29(1), 40-47.

Doll, W., & Torkzadeh, G. (1988). The Measurement of End-user Computing Satisfaction. *MIS Quarterly*. 12(2), 259-274.

Doyle, J. R., & Becker, J. (1983). Computer Assisted Planning (CAP) at Dinero International Bancorporation. *MIS Quarterly*. 7(3), 33-46.

Dunn, M. G., Norburn, D., & Birley, S. (1985). Corporate Culture, Organizational Climate, and Marketing Performance. *Proceedings of the Decision Sciences Institute*. 585-587.

Dymsza, W. A., & Negandhi, A. R. (1983). Introduction to Cross-Cultural Management Issue. *Journal of International Business Studies*. 14(2), 15-16.

Edwards, R. E. (1979). *Contested Terrain*. New York: Basic Books.

Emory, C. W. (1985). *Business Re-*

*search Methods*. Homewood, IL: Irwin.

England, G. W. (1967). Personal Value Systems of American Managers. *Academy of Management Journal*. 10(1), 53-68.

England, G. W., & Lee, R. (1974). The Relationship between Managerial Values and Managerial Success in the United States, Japan, India and Australia. *Journal of Applied Psychology*. 59(4), 411-419.

Farmer, R., & Richman, B. (1964). A Model for Research in Comparative Management. *California Management Review*. 4(2), 55-68.

Farmer, R. N., & Richman, B. (1965). *Comparative Management and Economic Progress*. Homewood, IL: Irwin.

Fishbein, M., & Ajzen, I. (1972). Attitudes and Opinions. *Annual Review of Psychology*. 23, 487-544.

Fishbein, M., & Azen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.

Griffeth, R. W., Hom, P. W., DeNisi, A., & Kirchner, W. (1980). A Multinational Comparison of Managerial Attitudes. *Proceedings of Academy of Management Journal*. 63-67.

Gudykunst, W., Yoon, Y., & Nishida, T. (1987). The Influence of Individualism-Collectivism on Perceptions of Communication in Ingroup and Outgroup Relationships. *Communication Monograph*. 54(3), 295-306.

Haire, M., Ghiselli, E., & Poter, L. (1966). *Managerial Thinking: An International Study*. New York: John Wiley and Sons, Inc.

Harbison, F. H., & Myers, C. A. (1960). *Management in the Industrial World*. New York: McGraw-Hill.

Herzberg, F., Mausner, B., Peterson, R., & Capwell, D. (1957). Job Attitudes:

Review of Research and Opinion. Pittsburgh, PA: Psychological Service of Pittsburgh.

Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). *The Motivation to Work*. New York: John Wiley & Sons.

Hoebel, A. E., Frost, C. L., & Spencer, A. (1976). *Cultural and Social Anthropology*. New York: McGraw-Hill.

Hofstede, G. (1980, 1984). *Culture's Consequences: International differences in Work-Related Values*. SAGE Publications, Inc.

Hofstede, G. (1983). The Cultural Relativity of Organizational Practices and Theories. *Journal of International Business Studies*. 14(2), 75-90.

Hunt, S., Sparkman, & Wilcox, J. (1982). The Pretest in Survey Research: Issues and Preliminary Findings. *Journal of Marketing Research*. 19, 269-273.

Huntington, S.P. (1973). Transnational Organizations in World Politics. *World Politics*. 25(1), 20-35.

Ives, B., & Olson, M. (1984). User Involvement and MIS Success: A Review of Research. *Management Sciences*. 30(5), 586-603.

Kanungo, R., & Wright, R. W. (1983). A Cross-Cultural Comparative Study of Managerial Job Attitudes. *Journal of International Business Studies*. 115-129.

Katona, G., Strumpel, B., & Zahn, E. (1971). *Aspirations and Affluence, Comparative Studies in the US and Western Europe*. New York: McGraw-Hill.

Kelley, L., Whatley, A., & Worhley, R. (1987). Assessing the Effects of Culture on Managerial Attitudes: A Three-Culture Test. *Journal of International Business Studies*. 18(2), (1987), 17-31.

Kerlinger, F. N. (1978). *Foundations of Behavioral Research*. McGraw-Hill, New York.

Kerr, C., Dunlop, J., Harbison, F., &

- Myers, C. (1954). *Industrialism and Industrial Man*. 2nd Ed., New York: Oxford University Press.
- Lincoln, J., & Gerald, Z. (1978). Organizational Properties from Aggregate Data: Separating Individual and Structural Effects. *American Sociological Review*. 45(3), 391-408.
- Lyons, T. F. (1971). Role Clarity, Need for Clarity, Satisfaction, Tension and Withdrawal. *Organizational Behavior and Human Performance*. 6, 99-110.
- Malinowski, B. A (1960). *Scientific Theory of Culture*. New York: Oxford University Press.
- Marsh, R., & Mannari, H. (1977). Organizational Commitment and Turnover: A Prediction Study. *Administrative Science Quarterly*. 22, 57-75.
- Manhardt, P J. (1972). Job Orientation of Male and Female College Graduates in Business. *Personnel Psychology*, 25, 361-368.
- McClelland, D. (1961). *The Achieving Society*. Princeton, NJ: D Van Nostrand Company, Inc.
- Mendenhall, M., & Oddou, G. (1985). The Dimensions of Expatriate of Acculturation. *Academy of Management Review*. 10(1), 39-47.
- Miller, J., & Doyle, B. A. (1987). Measuring the Effectiveness of Computer-Based Information Systems in the Financial Services Sector. *MIS Quarterly*. 11(1), 107-124.
- Montazemi, A. R. (1988). Factors Affecting Information Satisfaction in the Small Business Environment. *MIS Quarterly*. 12(2), 239-256.
- Munson, M., & McIntyre, S. (1979). Developing Practical Procedures for the Measurement of Personal Values in Cross-Cultural Marketing. *Journal of Marketing Research*. 16, 48-52.
- Nath, R. (1986). A Methodological Review of Cross-Cultural Management Research. *International Social Science Journal*. 20(1), 35-62.
- Negandhi, A. R. (1983). Cross-Cultural Management Research: Trends and Future Directions. *Journal of International Business Studies*. 14(2), 17-27.
- Negandhi, A. R. (1973). *Modern Organization Theory*. Kent, Ohio: Kent State University.
- Negandhi, A. R., & Prasad, S. B. (1971). *Comparative Management*. New York: Appleton-Century-Crofts.
- Norburn, D., Birley, S., & Dunn, M. (1990). A Four Nation Study of the Relationship between Marketing Effectiveness, Corporate Culture, Corporate Values, and Market Orientation. *Journal of International Business Studies*. 21(3), 451-468.
- Nunnally, J. C. (1978). *Psychometric Theory*. New York: McGraw-Hill.
- Peterson, R. B. (1972). A Cross-Cultural Perspective of Supervisory Values. *Academy of Management Journal*. 15(1), 105-117.
- Porter, L. W., & Lawler, E. E. (1968). *Managerial Attitude and Performance*. Homewood, IL: Irwin-Dorsey.
- Price, J. L. (1972). *Handbook of Organizational Measurement*. Lexington, Mass.: D.C. Heath.
- Quinn, R. P., & Shepard, L. J. (1974). *The Quality of Employment Survey*. Ann Arbor, MI: Survey Research Center.
- Redding, S. G., & Casey, T. W. (1976). *Managerial Beliefs and Behaviors in South East Asia*. Working Paper. Hong Kong: Center of Asia Studies. Hong Kong University.
- Ruben, B., & Kealey, D. (1979). Behavioral Assessment of Communication Competency and the Prediction of Cross-Cultural Adaptation. *International Journal of Intercultural Relations*. 3(1), 15-47.

Scott, J. (1988). Investment in Healthcare MIS Reflects Quality of Provider Group. *MIS Week*, 44.

Sekaran, U. (1983). Methodological and Theoretical Issues and Advancements in Cross-Cultural Research. *Journal of International Business Studies*. 14(2), 61-73.

Sekaran, U. & Martin, H. (1982). An Examination of the Psychometric Properties of Some Commonly Researched Individual Differences, Job, and Organizational Variables in Two Cultures. *Journal of International Business Studies*. 13(1), 51-66.

Sims, H. P., Szilagyi, A. D., & Keller, R. T. (1976). The Measurement of Job Characteristics. *Academy of Management Journal*. 19(2), 195-212.

Singleton, J. P., McLean, E. R., & Altman, E. N. (1988). Measuring Information Systems Performance: Experience with the Management Results System at Security Pacific Bank. *MIS Quarterly*. 12(2), (1988), 325-337.

Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). *The Measurement of Satisfaction in Work and Retirement*. Chicago: Rand McNally.

Steers, R. M., & Braunstein, D. N. (1976). A Behaviorally-Based Measure of

Manifest Needs in Work Settings. *Journal of Vocational Behavior*. 9(2), 251-266.

Triandis, H. C. (1972). *The Analysis of Subjective Culture*. New York: John Wiley.

Triandis, H. C. (1971). *Attitude and Attitude Change*. John Wiley.

Triandis, H. C. (1989). The Self and Social Behavior in Differing Cultural Contexts. *Psychological Review*. 96(3), 506-520.

Tung, R. (1981). Selecting and Training of Personnel for Overseas Assignments. *Columbia Journal of World Business*. 16(1), 68-78.

Webber, R. A. (1969). Convergence or Divergence? *Columbia Journal of World Business*. 4(3), 75-83.

White, J. K., & Ruh, R. A. (1973). Effects of Personal Values on the Relationship between Participation and Job Attitudes. *Administration Sciences Quarterly*. 18, 506-514.

Whitley, W., & England, G. (1977). Management Values as Reflection of Culture and the Process of Industrialization. *Academy of Management Journal*. 20(3), 439-453.

Worf, B. L. (1956). *Language, Thought, and Reality*. New York: Wiley.

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