# Exploration of the Impact of National Culture on Leaders – Members Exchange on Job Satisfaction

Yi-Chang Chen<sup>1</sup>, Ya-Shan Chuang<sup>2</sup> and Chin-Chiuan Lin<sup>3,\*</sup>

Assistant Professor of Department of Business Administration, Kun Shan University 195, Kunda Road, Yungkang District, Tainan, Taiwan

<sup>2</sup> Director of Department of Human Resources, Jiang-Feng Co. 9th Floor, 1027, Section 3, Wenxin Road, Beitun District, Taichung, Taiwan

<sup>3</sup> Professor of Department of Business Administration, Kun Shan University 195, Kunda Road, Yungkang District, Tainan, Taiwan

\*Corresponding author's email: cclin [AT] mail.ksu.edu.tw

ABSTRACT—The present study investigated the effects of leader-member exchange and national culture on job satisfaction of cross-nation construction workers. Furthermore, national culture was treated as a moderator in effect of leader-member exchange on job satisfaction. By conducted a questionnaire survey which including 199 participants from three nationalities (Taiwan, Thailand and Indonesia). Results indicated that the leader-member exchange had significantly affected on job satisfaction. The national culture also had significantly affected on job satisfaction except collectivism. Furthermore, power distance, collectivism and long-term orientation had significant negative moderating effects in effect of leader-member exchange on extrinsic satisfaction. Besides, practical implications were also proposed.

**Keywords**—Taiwan, national culture, leader-member exchange, job satisfaction

#### 1. INTRODUCTION

The construction industry plays a vital role in the establishment of national infrastructure. However, the domestic labors decreased to participate in construction industry highlights the human resource problem in many developed countries. Thus, the utilization of expatriate labors has become an immediate and feasible solution for the construction companies. However, the foreign labors who come from difference countries might lead some management issues due to diet, lifestyle, religion, faith and other culture differences. Consequently, implementation of cross-culture management to improve foreign labors' performance and satisfaction has become an important practical and academic issue for multinational companies.

Among the growing multi-disciplinary body of literature on the antecedents of job satisfaction, the importance of leader-member exchange (LMX) was revealed (Gerstner and Day, 1997; Volmer *et al*, 2011). Meanwhile, national culture has also played a vital role because it affects personality and perceived value related to the formation of job satisfaction (Hofstede, 1980; Hofstede and Hofstede, 2005). Generally, poor cross-culture leadership often resulted in employee dissatisfaction and poor performance (Kraimer *et al*, 2001).

Besides, in a research stream of expatriate studies (Chen and Tjosvold, 2005), most research used cross-nation participants who worked in the native country (Lin *et al.*, 2003; Sousa-Poza and Sousa-Poza, 2000) based on the assumption of contextual culture differences (Barkema *et al*, 2015). The conclusion suggested the participants evaluated job satisfaction under the same country-level and culture context. Consequently, there is a gap need to investigate the influence of culturale distance when discussing the effect of national culture on job satisfaction.

Moreover, most previous studies investigated their own country's workers in the foreign countries. Therefore, the present study investigated effects of leader-member exchange (LMX) and national culture on job satisfaction of foreign countries worker in Taiwan. Furthermore, national culture was treated as a moderator in effect of LMX on job satisfaction.

## 2. LITERATURE REVIEW

#### 2.1. National culture

National culture (NC) refers to the values, beliefs, and practices that are shared by most people and distinguish members of one nation from another (van Oudenhoven, 2001), and usually provides an implicit theory relating to behavioral expectations in a variety situations (Moon, 1996). Hofstede (1980) proposed four dimensions in which NCs differ were identified: individualism versus collectivism, power distance, uncertainty avoidance, and masculinity versus femininity. Individualism-collectivism dimension describes cultures on a continuum from loosely structured to tightly integrate. Power distance refers to the distribution of influence within a culture. Uncertainty avoidance reflects a culture's tolerance of ambiguity and acceptance of risk. Masculinity-femininity dimension describes whether a culture's dominant values are assertive or nurturing (Hofstede, 1980, 2001). In addition, Hofstede and Bond (1984) identified a fifth dimension which adopted from "Confucian work dynamism" into "long versus short-term orientation". Confucian work dynamism dimension describes cultures that range from short-term values with respect for tradition and reciprocity in social relations to long-term values with persistence and ordering relationships by status.

## 2.2. Leader-member exchange

Leader-member exchange (LMX) theory is a relationship-based approach to leadership that focuses on the relationship between managers and subordinates (Graen and Uhl-Bien, 1995). LMX suggests that managers develop an exchange with subordinates, and that the quality of these leader-member exchange relationships influences subordinates' responsibility, decisions, and access to resources and performance. Liden et al. (1997) indicated that LMX may promote positive employment experiences and augment organizational effectiveness.

## 2.3. Job satisfaction

Job satisfaction is defined as an emotional state that reflects a psychological response to the perceived job situations (Locke, 1976) and is a key concept of organizational psychology because higher levels of work-related outcomes can be achieved with high job satisfaction both in Eastern (Hsiao and Chen, 2012) and Western (Aydogdu and Asikgil, 2011) countries. However, the relationship between this individual-level psychological perception and employees' reactions might lead positive (Platis *et al*, 2015) and negative (Shields and Price, 2002) results.

Lingard and Francis (2004) declared dissatisfaction of Australian site-based construction workers was mostly related to payments and work-family conflicts due to long hours of work. Denso (2012) argued most construction workers were dissatisfied with the working environment and work benefits of the work provision requirement in Ghana. Marzuki *et al.* (2012) conducted that the job characteristics, payments, quality of relationships with supervisors and colleagues, and job security were the main determinants of job satisfaction for Indonesian construction practitioners. Hosseini *et al.* (2014) stated the job dissatisfaction of construction workers in South Australia was related to the adverse impact on personal health and quality of life. Obviously, the construction industry differs from other industry sectors because of multiple health and safety hazards. Wernimont (1966) concluded that both intrinsic and extrinsic factors can be sources of both satisfaction and dissatisfaction, but intrinsic factors are stronger in both cases.

# 2.4 . The effect of LMX on job satisfaction

LMX has been proven to be positively related to attitudes such as motivation (Tierney *et al.*, 1999) and organizational commitment (Martin *et al.*, 2005). Furthermore, LMX also has been demonstrated its positive impact on job satisfaction (Epitropaki and Martin, 1999, 2005). For example, Gerstner and Day (1997) showed a positive association between LMX

and job satisfaction of  $r_c$ =0.50. Epitropaki and Martin *et al.* (2005) found LMX was likely to be a strong predictor of job satisfaction. Volmer *et al.* (2011) summarized some academic rationales to explain why the LMX positive impact on job satisfaction. First, employees in a high-quality LMX relationship are awarded more intrinsic and extrinsic resources which are related to higher job satisfaction. Second, members of high-quality LMXs feel privileged in comparison to others who have not been selected as in-group members. Third, employees with a high LMX relationship have enriched jobs in several core job characteristics leading to better job satisfaction. Consequently, the following hypothesis was proposed:

H1: LMX is positively related to job satisfaction

# 2.5. The effect of national culture on job satisfaction

Some cross-nation studies addressed the issue of whether job satisfaction levels differ across nations or cultures. Individual-level and national-level situational factors have been identified (Sousa-Poza and Sousa-Poza, 2000; Huang and Van De Vliert, 2003, Pichler and Wallace, 2009). Pichler and Wallace (2009) used the data collected from 27 European countries, recognized individual-level factors, such as type of occupation, supervision responsibilities, working hours, and the assessment of job characteristics. Meanwhile, wage levels, extent of unionization, levels of unemployment and inequality were identified as national-level influential factors of job satisfaction.

Some scholars argued NC is an important driver of job satisfaction because it is the comprehensive base establishing a general perspective to perceive work-related value, attitude, and treatment (Ng et al., 2009). Chen (2013) found money ethics directly affected intrinsic and extrinsic job satisfaction. By employing Hofstede's dimensions, qualitative (Sledge et al., 2011) and quantitative (Spector et al., 2001; Williamson et al., 2005, Yetim and Yetim, 2006) researches were showed the relationship between NC and job satisfaction. Even the direction and significance of the NC effect varied, with the relationship between national culture and job satisfaction being justified at a certain level. Therefore, the following hypothesis was proposed:

H2: National culture is positively related to job satisfaction.

# 2.6. Moderating effect of national culture

NC has been identified as a meaningful moderator in business studies (Kaba and Osei-Bryson, 2013; Škerlavaj *et al.*, 2013). With regard to the moderating effect on job satisfaction, Huang and Van De Vliert (2003) found power distance had a negative moderating effect and individualism had a positive moderating effect on the relationship between intrinsic job characteristics and job satisfaction, but there is no significant moderating effect on the relationship between extrinsic job characteristics and job satisfaction.

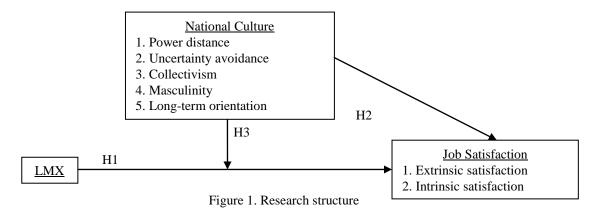
Based on culture backgrounds, managers have their perceptions of work-related values (such as authority, role-based obligation, and equality) and demonstrate their leadership behaviors. Naturally, employees whose culture perspective is closer to the manager are more likely to become in-group members and achieve higher job satisfaction. In other word, employees who feel a significant culture gap from the managers are more likely to have low quality of LMX, and this negatively influences job satisfaction. For example, Rockstuhl *et al.* (2012) explained the relationship between LMX and outcomes is stronger in horizontal-individualistic than vertical-collectivistic cultures. Consequently, the present study presumed NC is more likely to have a moderating effect on the relationship between LMX and job satisfaction. The following hypothesis was proposed:

H3: The national culture is a moderator in effect of LMX on job satisfaction.

## 3. METHODOLOGY

#### 3.1. Research structure

Figure 1 shows the research structure and hypotheses of the present study. For NC, the present study employed five dimensions: power distance, uncertainty avoidance, collectivism, masculinity and long-term orientation to meet the oriental culture and values. Furthermore, job satisfaction was divided into extrinsic and intrinsic satisfaction.



## 3.2. Participants

The present study was conducted at Taichung MRT project construction site in Taiwan. The valid participants comprised workers from three nationalities including 199 participants: 62 from Taiwan, 59 from Thailand and 78 from Indonesia.

# 3.3. Questionnaire

The questionnaire of LMX (7 items) referred to the proposed by Graen and Uhl-Bien (1995). NC was measured utilizing the research of Peng and Yuquan (2002) and Yoo *et al.* (2011) as well as the ideas proposed by Hofstede (1980) and Hofstede and Hofstede (2005). The five dimensions were power distance (4 items), uncertainty avoidance (3 items), collectivism (3 items), masculinity (8 items) and long-term orientation (5 items).

Job satisfaction was measured with the scale adapted from the Minnesota's satisfaction questionnaire (short form)

developed by Weiss et al. (1967). Both of extrinsic satisfaction (8 items) and intrinsic satisfaction (7 items) were measured.

Each question is assessed on a Likert 5 point rating scale ranges from 1 (strongly disagree) to 5 (strongly agree). In addition, five participants' characteristics were also controlled: nationality (Taiwanese and Indonesian labor, Thai employees as benchmark), age, education, marriage and work experience in the construction industry (Table 1).

Questionnaires were delivered to the participants in daily work meeting and the participants received the questionnaire version in their native language.

## 4. DATA ANALYSIS

# 4.1. Descriptive analysis

Table 1 shows the participants characteristics. Taiwanese participants were older than 36 years old, more had a college degree or above, more were married, and more had work experience in the construction industry or non-construction industry. Thai and Indonesian participants had more 35 years old or below and more had high school degree or below. Taiwanese and Indonesian participants had more work experience in the construction industry than Thai participants.

Table 1. Participant characteristics

Char	racteristics		Nationality					
Char	acteristics	Taiwan	Thailand	Indonesia				
Number	62	59	78					
A	0: 35 and below	27	42	58				
Age	1: 36 and above	35	17	20				
Education	0: High school or below	21	52	77				
	1: College or above	41	7	1				
Mamiana	0: Single	22	17	29				
Marriage	1: Married	40	42	49				
Work experience in the	0: No	23	38	38				
construction industry	1: Yes	39	21	40				

The LMX (KMO=0.925) and job satisfaction (KMO=0.933) which includes extrinsic satisfaction ( $\alpha$ =0.904) and intrinsic satisfaction ( $\alpha$ =0.903) were measured. For the NC (KMO=0.936), including power distance ( $\alpha$ =0.726), uncertainty avoidance ( $\alpha$ =0.820), collectivism ( $\alpha$ =0.701), masculinity ( $\alpha$ =0.928) and long-term orientation ( $\alpha$ =0.884) were measured.

# 4.2. ANOVA by nationalities

To test the influence of nationality, ANOVA (Table 2) was used and the results clearly pointed out Thai labor had relatively low means for each dimension. Compared to Taiwanese and Indonesian participants, Thai participants had significantly (p<0.05) lower means of extrinsic satisfaction, intrinsic satisfaction, LMX, uncertainty avoidance, masculinity and long-term orientation. However, there was an insignificant difference in mean values between Taiwanese and Indonesian participants. Furthermore, though the collectivism dimension did not reach statistical significant level, the rating scale of Thai participants was slightly greater than Indonesian participants.

Table 2. Mean and ANOVA analysis results of questionnaire

Research Dimensions	Tot	al	Mean V	alues by N	lationality	F-value	Post Hoc Test	
	Mean SD		Taiwanese	Thai	Indonesian	r-value	1 OSt 110C 1 CSt	
Extrinsic Satisfaction	3.184	0.637	3.296	3.296 2.994 3.239		3.999*	1,3>2	
Intrinsic Satisfaction	3.258	0.709	3.387	3.387 2.862 3.458		15.222***	1,3>2	
LMX	3.281	0.818	3.349	2.794 3.596		19.515***	1,3>2	
Power Distance	3.053	0.632	3.121	2.898 3.115		2.546		
Uncertainty Avoidance	3.464	0.779	3.651	3.000	3.667	17.339***	1,3>2	
Collectivism	3.024	0.713	3.065	3.034	2.983	0.233		
Masculinity	3.495	0.763	3.643	2.985	3.763	23.501***	1,3>2	
Long-term orientation	3.503	0.920	3.590	3.590 3.024 3.795		18.028***	1,3>2	

Note: \*p<0.05, \*\*\*p<0.001

## 4.3. Hierarchical regression analysis

The hypotheses were tested using hierarchical regression analysis. The results are shown in the Appendix Table 1 and 2. In the first step, five items of demographic variables were entered as control variables (referring to E-1 and I-1). In the second step, we entered LMX as an independent variable (referring to E-2 and I-2). In the third step, the dimensions of NC were entered respectively (referring to the series of E-3-1 to E-3-5 and I-3-1 to I-3-5) with LMX to examine the main effects of the independent variable and dimensions. In the final step, the interaction term for LMX and dimensions of NC were entered to test the moderating effect (referring to the series of E-4-1 to E-4-5 and I-4-1 to I-4-5). The interaction terms were computed by multiplying the two new centered variable of LMX and dimensions of NCs (Aiken and West, 1991). The values of VIF and the tolerance of all equations in Appendix Table 1 and 2 achieved statistical standards.

#### 4.3.1. Extrinsic satisfaction

Compared to Thai participant, Taiwanese participant ( $\beta$ =0.213) had significantly higher extrinsic satisfaction if we consider the effect of the demographic variables only. Regarding the effect of LMX, LMX ( $\beta$ =0.717) was positively related to extrinsic satisfaction. With regard to the main effects of LMX and NC simultaneously, it was obvious LMX and the dimensions of NC (except collectivism) were positively related to extrinsic satisfaction.

Considering the moderating effect, the interaction term of power distance\*LMX ( $\beta$ =-0.116), collectivism\*LMX ( $\beta$ =-0.159) and long-term orientation\*LMX ( $\beta$ =-0.168) were significantly negative related to extrinsic satisfaction.

## 4.3.2. Intrinsic satisfaction

Compared to Thai participant, Taiwanese participant ( $\beta$ =0.358) and Indonesian labor ( $\beta$ =0.367) had significantly higher intrinsic satisfaction if we consider the effect of the demographic variables only. Regarding the effect of LMX ( $\beta$ =0.658), LMX was positively related to extrinsic satisfaction. With regard to the main effects of LMX and NC simultaneously, it was clear LMX and the dimensions of NC (except collectivism) were also positively related to intrinsic satisfaction.

However, considering the moderating effect, there was no interaction term among the dimensions of NC with LMX reached statistical significant level on intrinsic satisfaction.

Table 3 showed the summary of the hypotheses. In summary, the H1 was fully supported. In contrast, H2 and H3 were not fully supported.

Table	3.	Summary	v of 1	he h	vpotheses
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Hypothesis	Dimension	Satis	faction	Summary	
Hypothesis	Dimension	Extrinsic	Intrinsic		
H1	LMX	Supported	Supported	H1: Fully Supported	
H2-1	Power Distance	Supported	Supported		
H2-2	Uncertainty avoidance	Supported	Supported		
H2-3	Collectivism	Not Supported	Not Supported	H2: Not Fully Supported	
H2-4	Masculinity	Supported	Supported		
H2-5	Long-term orientation	Supported Supported			
H3-1	Power distance*LMX	Supported	Not Supported		
H3-2	Uncertainty avoidance*LMX	Not Supported	Not Supported		
H3-3	Collectivism*LMX	Supported	Not Supported	H3: Not Fully Supported	
H3-4	Masculinity*LMX	Not Supported	Not Supported		
H3-5	Long-term orientation*LMX	Supported	Not Supported		

## 5. DISCUSSION AND MANAGERIAL SUGGESTION

## 5.1. Discussion

According to the previous results, it is obvious the demographic variables had no significant effect on job satisfaction, except nationality. In detail, nationality had more effect on intrinsic satisfaction than extrinsic satisfaction. With regard to the effect of LMX and the dimensions of NC, both were positively related to job satisfaction, except collectivism. Therefore, hypothesis H1 was fully supported, but hypothesis H2 was not fully supported.

According to the results of the cross-nation study conducted by Eskildsen *et al.* (2010), collectivism was not significantly related to job satisfaction. The finding was similar to the present study. However, collectivism was the only dimension of NC in which had no significant relationship with the evaluations of the job related aspect, such as daily work, motivation, co-operation and so on, it is reasonable to suggest the antecedents of job

satisfaction linking the evaluations of the job related aspect were not affected by collectivism. In other words, collectivism was less likely to affect the perception of work conditions and the evaluation of job satisfaction in Asia countries.

In addition, LMX had a much greater effect than NC on both extrinsic and intrinsic satisfaction. The rationale was likely to be the participants understood the work conditions in advance by contract and were only able to stay on the project working sites for several years. Meanwhile, the culture distance is much less among Taiwan, Thailand and Indonesia in comparison to Western culture. This person-organization fit with a similar culture such as the relationalism of the Confucian conception (Chuang et al., 2015) was likely to decrease the influence of culture variety. The participants could establish good psychological anticipation of leadership behaviors and minimize the influence of culture shock. Consequently, the individual-level factors such as daily managerial activities and communication were likely to play an important role in employee perception of job satisfaction compared to the national-levels.

Concerning the moderating effects, extrinsic satisfaction was affected by the interaction of LMX with power distance, collectivism and long-term orientation respectively. Figure 2 illustrated the extrinsic satisfaction increasing while the LMX increased, and high collectivism has higher extrinsic satisfaction than low collectivism. However, the incremental slope of high collectivism was smaller than low collectivism. Therefore, the interaction term of collectivism\*LMX resulted in negative coefficient. Generally, team members in lowquality LMX relationships have more negative emotional responses towards their work team co-workers (Tse et al., 2005). In the Chinese value system, individuals are expected to give credit not only to themselves but also to their family, colleagues, or even the whole society for "personal" success (Farh et al., 1991). In other words, the success of the group has higher priority than individual success. Since power distance, collectivism and longterm orientation belong to vertical-collectivism (Rockstuhl et al., 2012) which tolerate and accept authority and obligation for group success, the participants with higher vertical-collectivism are more likely to appreciate the current working conditions (such as wage, working schedule, vacation), even though the relationship with the manager is not good enough. Further, from the perspective of culture distance, Taiwanese managers can more easily conduct managerial practices with workers having vertical-collectivism. Consequently, even though the effect of organizational politics and distribution injustice on job satisfaction under low quality LMX might occur (Katrinli et al., 2010), workers still had more chances to expect appropriate extrinsic satisfaction.

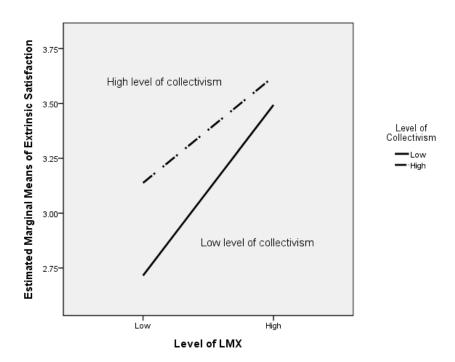


Figure 2. The moderating effect of collectivism in effect of LMX on extrinsic satisfaction

On the other hand, no interaction term significantly affected intrinsic satisfaction. Therefore, hypothesis H3 was not supported in intrinsic satisfaction. Since the participants were contract-based labor involving 3Ds (dirty, difficult and dangerous) work for a certain period, they were less likely to expect their work conditions would fulfill internal needs. This implied the effect of NC on intrinsic satisfaction was less likely to show a significant difference, regardless of the quality of LMX.

## 5.2. Managerial suggestion

From the perspective of foreign labor, LMX is possibly the vital issue in the construction industry for increasing job satisfaction, because the relationship with the manager influences the adjustment space of working regulations. Besides demonstrating qualified performance, foreign labor can adjust their mindset to fit harsh working conditions and supervisors' expectation. Meanwhile, the supervisors on the construction sites should establish multiple-channels to communicate with subordinates, especially toward the foreign labor. Appropriate entertainment and regular meetings should proactively provide. Cross-culture management should be launched by companies before the projects begin.

Considering the effect of NC, it seems not as important as LMX to job satisfaction in the present study. This result implied a single management system is feasible if the combination of workers share similar culture context. To increase the efficiency and effectiveness of management, personality test linking the culture context and lessons of culture awareness should be provided when recruiting foreign labor. If the culture gap cannot be minimized, some culture-based operations, such as appropriate foods and rest times for Muslim workers, direct communication to low-context cultures and indirect communication to high-context cultures (Cole, 2015), need to be arranged on the working site.

Further, job characteristics related to work values also influence job satisfaction (Kaasa, 2011). Basic-level work positions need employees to follow orders and focus on the work because of the regular work process and labor-intensive characteristics. According to the result of the present study, supervisors who cannot establish good relationships with subordinates are inappropriate to lead s engaging in this kind of work if subordinates have high vertical-collectivism.

## 6. REFERENCES

- [1] Aiken, L. S. and West, S. G. Multiple Regression: Testing and Interpreting Interactions. Newbury Park: Sage, 1991.
- [2] Aydogdu, S. and Asikgil, B. "An Empirical Study of the Relationship Among Job Satisfaction, Organizational Commitment and Turnover Intention", International Review of Management and Marketing 1(3), 43-53, 2011.
- [3] Barkema, H. G., Chen, X. P, George, G., Luo, Y. and Tsui, A. S. "West meets east: new concepts and theories", Academy of Management Journal 58(2), 460-479, 2015.
- [4] Chen, Y. C. "The relationship between money ethics, job satisfaction and organizational commitment: a study of Thai workers in Taiwan", Actual Problem of Economics 142(4), 523-533, 2013.
- [5] Chen, Y. F. and Tjosvold, D. "Cross-cultural leadership: Goal interdependence and leader-member relations in foreign ventures in China", Journal of International Management 11(3), 417-439, 2005.
- [6] Chuang, A., Hsu, R. S. Wang, A.-C. Judge, T. A. "Does west "fit" with east? In search of a Chinese model of person-environment fit", Academy of Management Journal 58(2), 480-510, 2015.
- [7] Cole, B. M. "Lessons from a martial arts dojo: a prolonged process model of high-context communication", Academy of Management Journal 58(2), 567-591, 2015.
- [8] Denso, H. "Construction workers' satisfaction with work provision requirement dimensions in Ghana's construction industry", International Journal of Engineering and Technology 2(9), 1613-1619, 2012.
- [9] Epitropaki, O. and Martin, R. "The impact of relational demography on the quality of leader-member exchanges and employees' work attitudes and wellbeing", Journal of Occupational and Organizational Psychology 72, 237-240, 1999.
- [10] Epitropaki, O. and Martin, R. "From ideal to real: A longitudinal study of the role of implicit leadership theories on leader–member exchanges and employee outcomes", Journal of Applied Psychology 90, 659-676, 2005.
- [11] Eskildsen, J., Kristensen, K. and Antvor, H. G. "The relationship between job satisfaction and national culture", The TQM Journal 22(4), 369-378, 2010.
- [12] Farh, J. L., Dobbins, G. H. and Cheng, B. S. "Cultural relativity in action: a comparison of self-ratings made by Chinese and US workers", Personnel Psychology 44, 129-147, 1991.
- [13] Gerstner, C. R. and Day, D. V. "Meta-analytic review of leader-member exchange theory: correlates and construct issues", Journal of Applied Psychology 82, 827-844, 1997.
- [14] Graen, G. B. and Uhl-Bien, M. "Relationship-based approach to leadership: development of Leader–Member Exchange (LMX) theory of leadership over 25 years: applying a multi-level, multi-domain perspective", Leadership Quarterly 6(2), 219-247, 1995.
- [15] Hofstede, G. "Motivation, leadership and organization: do American theories apply abroad?", Organizational Dynamics 9(1), 42-63, 1980.

- [16] Hofstede, G., Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Nations. Thousand Oaks, CA: Sage, 2001.
- [17] Hofstede, G. and Bond, M. H. "Hofstede's culture dimensions: an independent validation using Rokeach's value survey", Journal of Cross-Cultural Psychology 15(4), 417-433, 1984.
- [18] Hofstede, G. and Bond, M., Culture's consequences: International differences in work-related values. Berverly Hills, CA: Sage, 1988.
- [19] Hofstede, G. and Hofstede, G. J., Cultures and Organizations: Software of the Mind. New York: McGraw-Hill, 2005.
- [20] Hosseini, M. R., Chileshe, N. and Zillante, G. "Investigating the factors associated with job satisfaction of construction workers in South Australia", Australasian Journal of Construction Economics and Building 14(3), 1-17, 2014
- [21] Hsiao, J. M. and Chen, Y. C. "Antecedents and consequently of job satisfaction: a case of automobile component manufacturer in Taiwan", International Journal of Organizational Innovation 5(2), 164-178, 2012.
- [22] Huang, X. and Van De Vliert, E. "Where intrinsic job satisfaction fails to work: national moderators of intrinsic motivation", Journal of Organizational Behavior 24, 159-179, 2003.
- [23] Lingard, H. and Francis, V. "The work-life experiences of office and site-based employees in the Australian construction industry", Construction Management and Economics 22, 991-1002, 2004.
- [24] Judge, T. A. and Bono, J. E. "Relationship of core self-evaluations traits--self-esteem, generalized self-efficacy, locus of control, and emotional stability-with job satisfaction and job performance: a meta-analysis", Journal of Psychology 86(1), 80-92, 2001.
- [25] Kaasa, A. (2011) Work values in European countries: empirical evidence and explanations. Reviews of International Comparative Management 12, 852-862, 2013.
- [26] Kaba, B. and Osei-Bryson, K. M. "Examining influence of national culture on individuals' attitude and use of information and communication technology: assessment of moderating effect of culture through cross countries study", International Journal of Information Management 33(3), 441-452.
- [27] Katrinli, A., Atabay, G., Gunay, G. and Cangarli, B. G. "Perception of organizational politics and LMX: Linkages in distributive justice and job satisfaction", African Journal of Business Management 4(14), 3110-3121, 2010.
- [28] Kraimer, M. L., Wayne, S. J. and Jaworski, R. A. (2001) Sources of support and expatriate performance: the mediating role of expatriate adjustment. Personnel Psychology 54, 71-99.
- [29] Leigh, J. H., Lucas, G. H. and Woodman, R. W. "Effects of perceived organizational factors on role stress-job attitude relationships", Journal of Management 14, 41-58, 1988.
- [30] Liden, R. C., Sparrowe, R. T. and Wayne, S. J. "Leader-member exchange theory: the past and potential for the future", Research in Personnel and Human Resource Management 15, 47-119, 1997.
- [31] Lin, C. P., Chang, S. S. and Chu, C. S. "A causal model of job satisfaction under two different cultures", Asia Pacific Management Review 8(1), 71-98, 2003.
- [32] Locke, E. A., The nature and causes of job satisfaction. in M. D. Dunnette (ed.) Handbook of Industrial and Organizational Psychology. Illinois: Rand-McNally, 1297-1349, 1976.
- [33] Martin, R., Thomas, G., Charles, K., Epitropaki, O. and McNamara, R. "The role of leader–member exchanges in mediating the relationship between locus of control and work reactions", Journal of Occupational and Organizational Psychology 78, 141-147, 2005.
- [34] Marzuki, P. F, Permadi, H. and Sunaryo, I. "Factors affecting job satisfaction of workers in Indonesian construction companies", Journal of Civil Engineering and Management 18(3), 299-309, 2012.
- [35] Moon, D. G. "Concepts of culture: implications for intercultural communication research", Communication Quarterly 44(1), 70-81, 1996.
- [36] Ng, T. W. H, Sorensen, K. L. and Yim, F. H. K. "Does the relationship between job satisfaction and job performance depend on culture?", Journal of Cross-Cultural Psychology 40(5), 761-796, 2009.
- [37] Peng, L. S. and Yuquan, S. "An exploratory study of Hofstede's cross-cultural dimensions in construction projects", Management Decision 40(1), 7-16, 2002.
- [38] Pichler, F. and Wallace, C. (2009) What are the reasons for differences in job satisfaction across Europe? Individual, compositional, and institutional explanation. European Sociological Review 25, 535-549.
- [39] Platis, Ch., Reklitis, P. and Zimeras, S. "Relation between job satisfaction and job performance in healthcare services", Procedia- Social and Behavioral Sciences 175, 480-487, 2015.
- [40] Rockstuhl, T., Dulebohn, J. H., Ang, S. and Shore, L. M. "Leader-member exchange (LMX) and culture: a meta-analysis of correlates of LMX across 23 countries", Journal of Applied Psychology 97(6), 1097-1130, 2012.
- [41] Shields, M. A. and Price, S. W. "Racial Harassment, Job Satisfaction and Intentions to Quit: Evidence from the British Nursing Profession", Economica 69, 295-326, 2002.

- [42] Škerlavaj, M., Su, C. and Huang, M. "The moderating effects of national culture on the development of organizational learning culture: a multilevel study across seven countries", Journal for East European Management Studies 18(1), 97-134, 2013.
- [43] Sledge, S., Miles, A. K. and van Sambeek, M. F. "A comparison of employee job satisfaction in the service industry: do cultural and spirituality influences matter?", Journal of Management Policy and Practice 12(4), 126-145, 2011.
- [44] Sousa-Poza, A. and Sousa-Poza, A. "Well-being at work: A cross-national analysis of the levels and determinants of job satisfaction", Journal of Socio-Economics 29, 517-538, 2000.
- [45] Spector, P. E., Cooper, C. L., Sanchez, J. I., O'Driscoll, M., Sparks, K. and Bernin, P. "Do national levels of individualism and internal locus of control relate to well-being: An ecological level international study", Journal of Organizational Behavior 22, 815-832, 2001.
- [46] Tierney, P., Farmer, S. and Graen, G. "An examination of leadership and employee creativity: The relevance of traits and relationships", Personnel Psychology 52, 591-620, 1999.
- [47] Tse, H. M. and Ashkanasy, N.M., The role of affect in vertical and lateral exchange work relationships in teams. in N. M. Ashkanasy and C. Cooper (eds.) Research companion to emotions in organizations. Cheltenham, UK: Edward Elgar, 499-511, 2008.
- [48] van Oudenhoven J. P. (2001) Do organizations reflect national cultures? A 10-nation study. International Journal of Intercultural Relations 25(1), 89-107.
- [49] Volmer, J., Niessen, C., Spurk, D., Linz, A. and Able, A. E. "Reciprocal relationships between leader-member exchange (LMX) and job satisfaction: a cross-lagged analysis", Applied Psychology: An International Review 60(4), 522-545, 2011.
- [50] Wernimont, P. F. "Intrinsic and extrinsic factors in job satisfaction", Journal of Applied Psychology 50(1), 41-50, 1966.
- [51] Williamson, J. M., Pemberton, A. E. and Lounsbury, J. W. "An investigation of career and job satisfaction in relation to personality traits of information professionals", Library Quarterly 75, 122-141, 2005.
- [52] Weiss, D. J., Dawis, R. V. England, G. W. and Lofquist, L. H., Manual for the Minnesota Satisfaction Questionnaire. Vol. 22, Minnesota Studies in Vocational Rehabilitation, Minneapolis: University of Minnesota, Industrial Relations Center, 1967.
- [53] Yetim, N., and Yetim, U. "The cultural orientations of entrepreneurs and employees' job satisfaction: The Turkish small and medium sized enterprises (SMEs) case", Social Indicators Research 77, 257-286, 2006.
- [54] Yoo, B., Donthu, N. and Lenartowicz, T. "Measuring Hofstede's five dimensions of cultural values at the individual level: development and validation of CVSCALE", Journal of International Consumer Marketing 23, 193-210, 2011.

Appendix Table 1. Analysis results of hierarchical regression analysis of extrinsic satisfaction

Independent Variables &	E-1	E-2	E-3-1	E-3-2	E-3-3	E-3-4	E-3-5	E-4-1	E-4-2	E-4-3	E-4-4	E-4-5
Dimensions											2	
Nationality-Taiwan	0.213*		-0.027	-0.103	-0.021	-0.085	-0.056	-0.041	-0.103	-0.022	-0.095	-0.072
Nationality-Indonesia	0.164	-0.164*	-0.146*	-0.207**	-0.149*	-0.205**	-0.194**	-0.180*	-0.207**	-0.161*	-0.229**	-0.242**
Age	0.146		0.075	0.083	0.076		0.093	0.073	0.083	0.069	0.079	0.074
Education	-0.094	-0.019	-0.005	0.015	-0.009	0.003	-0.010	-0.030		-0.032	-0.005	-0.030
Marriage	-0.075	-0.089	-0.080	-0.069	-0.080	-0.077	-0.094	-0.079	-0.069	-0.067	-0.068	-0.092
Work experience	0.066	0.037	0.042	0.034	0.033	0.035	0.033	0.039	0.034	0.043	0.037	0.032
LMX		0.717***	0.626***	0.584***	0.693***	0.543***	0.609***	0.624***	0.594**	0.645***	0.873***	0.624***
Power distance			$0.172^{**}$					$0.159^{**}$				
Uncertainty avoidance				0.276***					0.284			
Collectivism					0.066					0.088		
Masculinity						0.261**					$0.242^{**}$	
Long-term orientation							$0.180^{*}$					$0.150^{*}$
Power distance*LMX								-0.116*				
Uncertainty									-0.016			
avoidance*LMX												
Collectivism*LMX										-0.159**		
Masculinity*LMX											-0.321	
Long-term												-0.168**
orientation*LMX												
F-value	2.1***	22.51***	21.68***	24.14***	20.20***	22.35***	21.36***	20.37***	21.61***	19.76***	20.50***	21.16***
R <sup>2</sup>	0.072	0.487	0.508	0.535	0.490	0.516	0.504	0.520	0.535	0.512	0.522	0.530
Adj R²	0.038	0.465	0.485	0.513	0.466	0.492	0.481	0.494	0.510	0.486	0.496	0.504
∆R <sup>2</sup>	0.072	0.415	0.021	0.048	0.004	0.029	0.018	0.012	0.000	0.022	0.006	0.025

Appendix Table 2. Analysis results of hierarchical regression analysis of intrinsic satisfaction

Appendix Table 2.71	nary sis iv	courts or	meraren	icai icgic	osion an	arysis or	mumsic	battstac	поп			
Independent Variables & Dimensions	I-1	I-2	I-3-1	I-3-2	I-3-3	I-3-4	I-3-5	I-4-1	I-4-2	I-4-3	I-4-4	I-4-5
Nationality-Taiwan	0.358***	0.142	0.136	0.074	0.143	0.090	0.108	0.138	0.080	0.143	0.092	0.107
Nationality-Indonesia	0.367***	0.068	0.095	0.030	0.080	0.032	0.035	0.099	0.050	0.080	0.037	0.031
Age	0.045	-0.016	-0.024	-0.013	-0.020	-0.008	-0.001	-0.024	-0.009	-0.020	-0.007	-0.003
Education	-0.122	-0.054	-0.031	-0.025	-0.046	-0.036	-0.045	-0.027	-0.014	-0.047	-0.034	-0.046
Marriage	-0.086	-0.100	-0.082	-0.080	-0.093	-0.087	-0.102	-0.082	-0.084	-0.092	-0.088	-0.102
Work experience	0.087	0.062	0.067	0.057	0.058	0.058	0.055	0.067	0.064	0.059	0.057	0.055
LMX		0.658***	0.513***	0.542***	0.638***	0.511 ***	0.546***	0.513 ***	0.156	0.636 ***	0.440	0.547
Power distance			0.271***					0.273***				
Uncertainty avoidance				0.237***					-0.060			
Collectivism					0.055					0.056		
Masculinity						$0.218^{**}$					$0.223^{*}$	
Long-term orientation							$0.185^{**}$					$0.181^{*}$
Power distance*LMX								0.017				
Uncertainty									0.610			
avoidance*LMX												
Collectivism*LMX										-0.007		
Masculinity*LMX											0.068	
Long-term												-0.013
orientation*LMX												
F-value	5.38***	25.13***	27.41***	25.57***	22.45***	24.01***	23.85***	24.56***	23.72***	20.10***	21.52***	21.36***
R <sup>2</sup>	0.165	0.515	0.567	0.550	0.518	0.535	0.533	0.568	0.559	0.518	0.535	0.533
Adj R <sup>2</sup>	0.135	0.495	0.547	0.529	0.495	0.513	0.511	0.545	0.536	0.492	0.510	0.508
△R <sup>2</sup>	0.165	0.350	0.052	0.035	0.003	0.019	0.018	0.000	0.009	0.000	0.000	0.000