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Kulturális intelligencia, munkahelyi elkötelezettség és munkateljesítmény:
A filippínó, indonéz és magyar gyári munkások esete

Cultural Intelligence, Job Commitment and Job Performance:
The case of Filipino, Indonesian, and Hungarian factory workers

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Abstract

The increasing globalization of manufacturing has made it more and more important for companies to effectively overcome intercultural differences and work with international employees. The growing demand for foreign labor in Hungary introduces a series of complexities for businesses and their managerial practices. Projections for the year 2024 suggest that the collective count of foreign labor force will exceed 100,000 individuals. These difficult tasks require new skills, and one of them is cultural intelligence - the ability to understand and adapt effectively to cultural differences. The lack of recent studies in the field of cross-cultural management in Hungary. Therefore, the purpose of this study is to examine the role of cultural intelligence (including Metacognitive, Cognitive, Motivational, Behavioral factors) in the manufacturing industry. Specifically, it aims to examine how cultural intelligence can influence employee performance and commitment. The study uses quantitative methods approach that includes surveys with Filipino, Indonesian expatriate employees and Hungarian employees. The results of this study sheds light on how manufacturing companies can use cultural intelligence to their advantage and improve their global competitiveness. Besides, gender and nationality play crucial roles on job performance and on job commitment. Additionally, the study highlights the need for ongoing research and development of cultural intelligence strategies in the manufacturing industry, particularly as the global business environment continues to evolve and become more complex.

Table of contents

1. Introduction	1
2. Literature review:	2
2.1 Cultural Intelligence.....	2
2.1.1. Cognitive CQ.....	3
2.1.2. Metacognitive CQ.....	5
2.1.3 Motivational CQ	6
2.1.4. Behavioral CQ	7
2.2. Leader Member Exchange.....	8
2.3. Job satisfaction	9
2.4. Job performance.....	10
3. Methods.....	14
3.1. Sample selection and data collection procedure	14
4. Measures	15
4.1 Cultural Intelligence (CQ).....	15
4.2 Leader-Member Exchange (LMX)	15
4.3 Job performance.....	15
4.4. Job commitment	16
4.5. Job satisfaction	16
5. Data analysis and results	16
5.1 Reliability	16
5.2 Results	17
5.2.1 Job commitment	17
5.2.2 Job performance.....	18
5.2.3 Differences among nationalities	21
6. Discussions and conclusions.....	22
6.1 Theoretical contributions.....	22
6.2 Managerial implications	23
7. References	24

1. Introduction

Increased recruitment of and reliance on foreign laborers has become a new challenge for many nations including Hungary. Officially, there are already more than 85,000 foreign workers employed in Hungary (KSH, 2023) and their numbers continue to grow: 500-1000 foreign workers arrive in Hungary every month (Portfolio, 2023), mainly in the industrial sector. However, companies that hire expatriate workers do not succeed in cross-cultural management due to lack of experience and not appropriate attitude towards foreigners and their culture. Key component for success is Cultural Intelligence which was first proposed by Earley and Ang (2003). Recent study found that higher levels of Cultural Intelligence were associated with greater cross-cultural adaptation and better job performance (Setti et al., 2022).

It is important to study CQ due to the increasing need for foreign labor. Migrant workers are a critical source of human labor that compensates for domestic labor shortages, which often result from low numbers of working-age individuals in a population or a lack of willingness among citizens of the hosting nation to perform certain jobs (Debrah, 2002).

The reason for my selection of this topic is due to my current employment at a Hungarian manufacturing firm that employs more than one hundred Filipino expatriates. This presents a unique opportunity for me to analyze their attitudes towards their work and their leaders.

The aim of this study to examine the impact of the cultural intelligence (4 dimensions) on leader-member exchange, job performance and job commitment. The structure of the study is the following, first in literature review I examined the above-mentioned dimensions. Second, I described the used quantitative methodology, and third, the results. Finally, in the discussions point out theoretical contributions and managerial implications.

Cultural intelligence consists of 4 dimensions; Cognitive CQ is directed at learning the norms and practices of a certain culture (Ang et al., 2007) Metacognitive CQ focuses on the higher-order cognitive processing and refers to the way in which individuals process and gain cultural knowledge (Le et al., 2020). Motivational CQ reflects an individual's capability to focus and direct one's attention and energy toward learning and functioning in different cultural settings (Ang et al., 2007). The fourth dimension of CQ, behavioral CQ, reflects the appropriateness of the verbal and nonverbal behavior of an individual when interacting with others.

Leader-member exchange (LMX) refers to the relationship between a leader and a member of their team. It emphasizes that the quality of the relationship between the leader and the member. Job performance refers to the level of effectiveness and efficiency with which an individual performs the duties and responsibilities assigned to them in their job. Job performance is important because it impacts the success of an organization. Job commitment suggests the level

of attachment, loyalty, and dedication that an individual has towards their job, organization, and work-related goals. Job satisfaction is the degree to which an employee feels positively about their work, work environment, and overall job experience, it is important because it can impact the overall well-being and performance of an individual. (Locke, 1978).

Survey was conducted using a questionnaire to collect responses from a total of 304 participants, which includes Filipino and Indonesian expatriate workers, as well as Hungarian employees working alongside expatriates. In terms of methodology reliability test was executed. Factor analysis were performed for dimension reduction. Linear regression was used for hypothesis testing. The study's results highlight the significant influence of nationalities on cultural intelligence and job-related factors, revealing distinctions among Filipino, Hungarian, and Indonesian respondents. These findings underscore the importance of acknowledging cultural and national variations in the workplace. Furthermore, the research identifies Metacognitive CQ, Motivational CQ, Leader-Member Exchange, Job Commitment, and Gender as key factors affecting job performance, with respondent nationality acting as a mediating variable. These insights provide practical implications for enhancing employee performance and satisfaction. Additionally, the study identifies Behavioral CQ, Leader-Member Exchange, Job Performance, and Job Satisfaction as crucial predictors of job commitment, with Gender playing a mediating role in this relationship.

2. Literature review:

2.1 Cultural Intelligence

Cultural intelligence (CQ) refers to a person's ability to adapt and function effectively in different cultural situations. It is a multidimensional construct consisting of four dimensions: metacognitive, cognitive, motivational, and behavioral (Earley & Ang, 2003). The metacognitive dimension of CQ refers to how people process and acquire cultural knowledge.

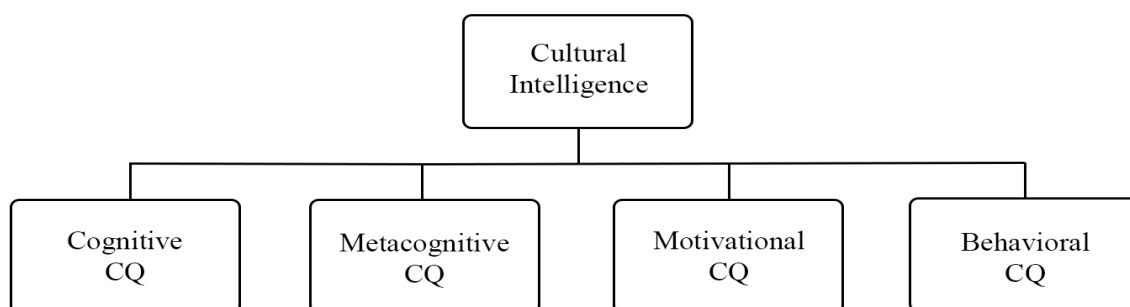


Figure 1. Source: own edit adapted from Van Dyne, Ang, and Livermore (2010)

The cognitive dimension focuses on learning the norms and practices of a particular culture. Motivational CQ reflects a person's ability to focus attention and energy on learning and functioning in different cultural environments. Finally, the behavioral dimension CQ reflects the appropriateness of a person's verbal and nonverbal behavior when interacting with others. Research has shown that individuals with high CQ are critical to the success of businesses and organizations because they are better to communicate effectively with people from other cultures, negotiate business deals, and build relationships with stakeholders in different cultural contexts (Ang & Van Dyne, 2008). In addition, individuals with higher CQ are more likely to be successful in international assignments, are more effective leaders in multicultural teams, and are more creative and innovative (Earley & Mosakowski, 2004; Ang & Van Dyne, 2008). Employees with higher CQ are also more likely to achieve higher job performance (Chen et al., 2011).

The development of CQ is influenced by several factors, including previous cross-cultural experiences, cognitive complexity, and cultural knowledge. Individuals with prior cross-cultural experiences, such as having lived or worked abroad, tend to have higher CQ (Earley & Ang, 2003). Finally, cultural knowledge, or the extent to which an individual has knowledge of different cultural contexts, is also critical to the development of CQ (Rockstuhl et al., 2011). Formal education, particularly in areas such as anthropology, sociology, and intercultural communication, can enhance cognitive CQ (Ang & Van Dyne, 2008). In addition, cross-cultural training programs can improve CQ by providing individuals with the knowledge and skills to deal effectively with cultural differences. It is important for individuals to continually develop their CQ to navigate the complex and diverse cultural environment of today's globalized world.

2.1.1. Cognitive CQ

Cognitive CQ refers to the breadth and depth of a person's knowledge of foreign cultures. This includes the ability to recognize and interpret cultural symbols and norms, as well as the ability to apply this knowledge to different cultural contexts (Ang & Van Dyne, 2008).

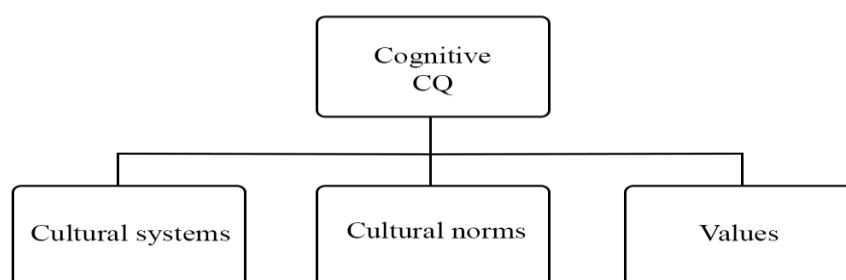


Figure 2. Source: Own edit adapted from Van Dyne, Ang, and Livermore (2010)

Individuals with high cognitive CQ have a deep understanding of how one culture differs from another in various aspects, such as values, social norms, religion, political and economic systems. This is a key indicator of success in multicultural situations and necessary for decent intercultural communication. Individuals with a high cognitive CQ are also able to successfully negotiate and understand cultural differences, which helps avoid misunderstandings and misinterpretations. Expatriates with a high cognitive CQ have sophisticated mental maps of the culture that enable them to identify similarities and differences between cultures (Brisling et al. 2006).

Cognitive CQ is important in a variety of settings, including education, international business, and cross-cultural communication. In education, students with a high cognitive CQ are more likely to succeed in a multicultural environment and learn from different perspectives (Ward, Fischer, & Frey, 2015). In international business, individuals with a high cognitive CQ are more likely to successfully negotiate cross-culturally and build relationships with stakeholders from different cultural backgrounds (Earley & Ang, 2003). In cross-cultural communication, individuals with high cognitive CQ are more likely to correctly interpret and understand nonverbal communication, such as gestures and facial expressions (Rockstuhl et al., 2011).

The development of cognitive CQ is influenced by several factors, including prior cross-cultural experiences, cognitive complexity, and cultural knowledge. Individuals who have had previous cross-cultural experiences, such as having lived or worked abroad, tend to have higher cognitive CQ (Earley & Ang, 2003). Cognitive complexity, or the ability to process and understand complex information, is also important in developing cognitive CQ (Ward et al., 2015). Finally, cultural knowledge, or the extent to which an individual has knowledge of different cultural contexts, is also critical to the development of cognitive CQ (Rockstuhl et al., 2011). Another factor that influences cognitive CQ is education. Formal education, particularly in areas such as anthropology, sociology, and intercultural communication, can improve cognitive CQ (Ang & Van Dyne, 2008). In addition, cross-cultural training programs can also improve cognitive CQ by providing individuals with the knowledge and skills to deal effectively with cultural differences.

2.1.2. Metacognitive CQ

Metacognitive CQ refers to awareness and control of one's own thinking and learning processes when engaging in cross-cultural interactions (Ang & Van Dyne, 2008). This includes the ability to monitor one's thinking and learning, evaluate one's cultural biases and assumptions, and adjust one's thinking and behavior accordingly.

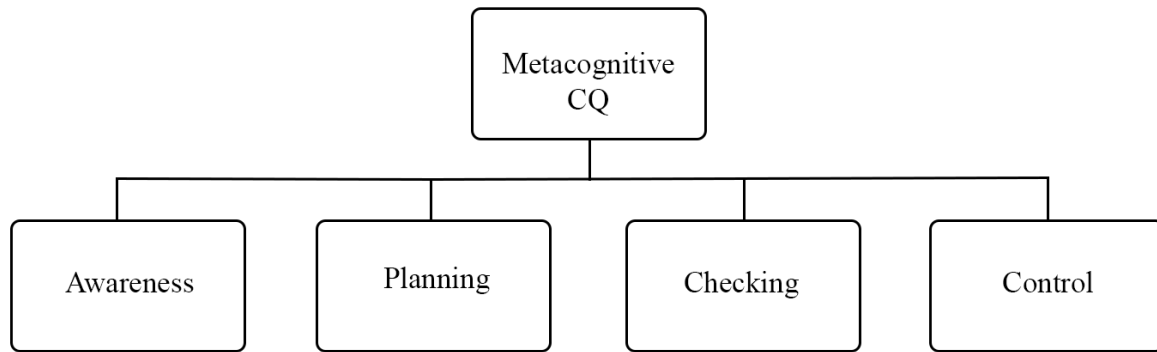


Figure 3. Source: Own edit adapted from Van Dyne, Ang, and Livermore (2010)

Metacognition CQ is essential for effective intercultural communication and is an important predictor of success in multicultural settings. Individuals with high metacognitive CQ are able to think contextually and flexibly. This ability enables them to interact and collaborate more effectively in cross-cultural contexts (Mor et al., 2013). Metacognitive CQ is the strongest predictor of decision making and intercultural judgment and is slightly stronger than cognitive CQ, but significantly stronger than motivational CQ or behavioral CQ (Rockstuhl and Van Dyne, 2018). Expatriate employees in multicultural workplaces who have high levels of metacognitive CQ are more likely to be able to mitigate the negative effects of a challenging work environment on their well-being. Individuals with high metacognitive CQ have been found to be successful in cross-cultural creative collaborations, in part because these individuals are better able to build affect-based trust in their collaborative relationships with people from other cultures (Chua et al., 2012). Immigrant workers who have low metacognitive skills CQ may be less able to successfully adapt to multicultural work environments and build effective trusting relationships with others, including their supervisor, which then negatively impacts their subjective well-being. Individuals with high metacognitive abilities CQ also regularly question the accuracy of their knowledge about foreign cultures. They tend not to use their cultural assumptions to make snap judgments in cross-cultural interactions without confirming the accuracy of those assumptions. Instead, they approach new cultural interactions with an open mind and are aware of the cultural preferences of strangers (Afsar et al., 2019). Scholars

also believe that cultural knowledge must be combined with cultural metacognition to improve individual cultural learning (Ott and Michailova, 2016).

2.1.3 Motivational CQ

Motivational CQ is defined as an individual's level of interest, drive, and willingness to adapt to and learn about different cultures. This component is critical in maintaining an open-minded and positive attitude towards different cultures and motivating individuals to learn more about cultural differences (Rockstuhl and Van Dyne, 2018).

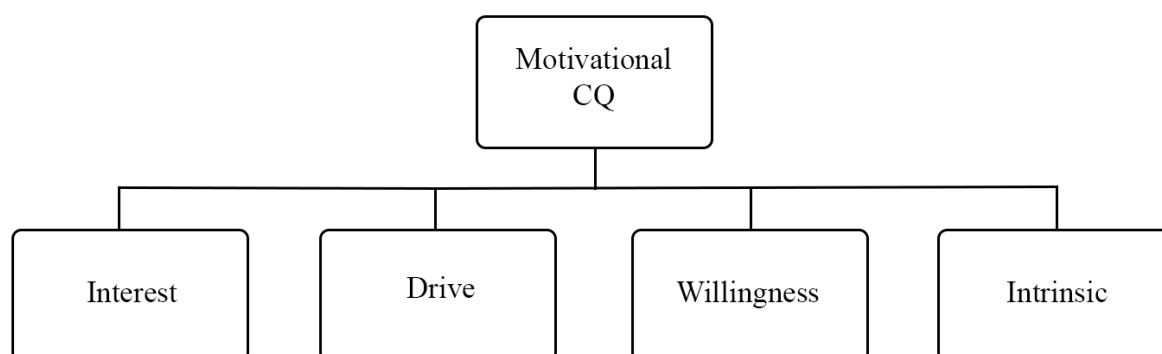


Figure 4. Source: Own edit adapted from Van Dyne, Ang, and Livermore (2010)

Individuals with high motivational CQ enjoy interacting with people from other cultures and have a high level of self-confidence that helps them deal effectively with challenges and difficulties that may arise in unfamiliar cultural environments (Rockstuhl and Van Dyne, 2018). Those with high motivational CQ direct attention and energy toward cross-cultural situations based on intrinsic interest (Deci and Ryan, 1985). Members with higher motivational CQ bring about more effective communication with the outcome of lessening the impact of national culture difference (Temples et al., 2006). Expatriates high in motivational CQ are naturally motivated by their efficient beliefs about their adaptive capabilities to interact with colleagues from different backgrounds. As a result, they can direct their energy toward learning role expectations, positively coping with problems, and striving to address challenges (Black et al., 1991).

Motivational CQ may also facilitate expatriates' performance. Yuan, Zhang and Zhang (2020) conducted a study on the relationship between motivational CQ and job performance and found that employees with higher motivational CQ had higher levels of job performance, indicating that motivational CQ is an important predictor of job performance. Expatriates high in motivational CQ are more psychologically prepared to adjust to the work demands expected in culturally diverse workplaces (Chen et al., 2010). Thus, they have confidence in their abilities

and intrinsic motivation to adjust to new workplaces (Palthe, 2004) and display newly learnt behaviors (Black et al., 1991). This may stimulate their involvement in culturally different modes of working and the accomplishment of their assignment objectives (Lin et al., 2012). Studies have shown that motivational CQ is the most prominent predictor of employee outcomes. For instance, Lam et al. (2022) found that motivational CQ was the highest predictor of employee satisfaction and, moreover, that motivation was the most important dimension of CQ for developing strong cross-cultural acknowledge, which translated into positive customer feedback. Presbitero (2017) advised that multicultural workplaces should promote motivational CQ because it encourages individuals to persist in overcoming challenges. Higher motivational CQ was associated with higher levels of work engagement and lower levels of job burnout. Zhang, Gao, and Li (2018) study found that employees with higher motivational CQ had higher levels of work engagement.

2.1.4. Behavioral CQ

Behavioral CQ is a critical component of a person's ability to interact effectively with people from other cultures. This includes communicating in a culturally sensitive manner and exhibiting culturally appropriate verbal and nonverbal behaviors when interacting with people from other cultures (Ang et al. 2007). Expatriates with high levels of behavioral flexibility CQ can choose appropriate verbal and physical actions when interacting with locals (Ang and Van Dyne 2008). This behavioral flexibility can help them exhibit culturally appropriate role-related behaviors and meet task-specific expectations.

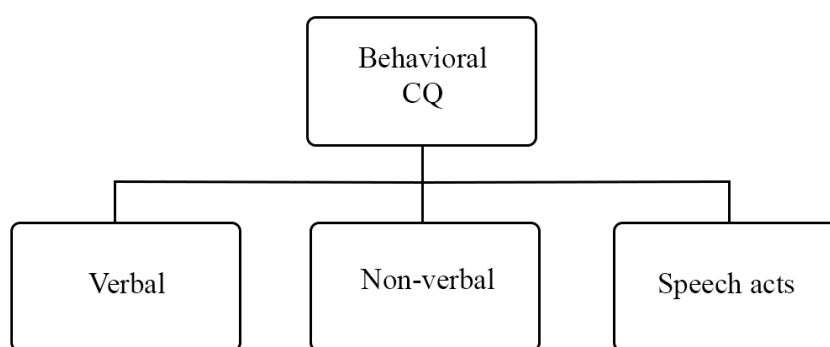


Figure 5. Source: Own edit adapted from Van Dyne, Ang, and Livermore (2010)

Studies have shown that individuals with higher levels of behavioral competence CQ are more likely to be successful in multicultural settings in terms of personal and organizational outcomes (Peterson and Smith 2015). In addition, individuals with higher levels of CQ were more likely to adapt to new cultures and build positive relationships with locals (Ang and Van Dyne 2008).

Research has also shown that higher levels of CQ are associated with better cross-cultural work outcomes, such as job satisfaction, job performance, and cross-cultural communication (Lee et al. 2014).

Those with high behavioral CQ exhibit situationally appropriate behaviors based on their broad range of verbal and nonverbal capabilities, such as exhibiting culturally appropriate words, tone, gestures, and facial expressions (Gudykunst et al. 1988). Therefore, expatriates with greater behavioral CQ can use culturally appropriate expressions in communication, in addition to flexibly adapting their behavior to create comfort zones for the other individual(s) involved in cross-cultural encounters (Earley and Peterson 2004). This may reduce miscommunications and enhance performance (Ng et al. 2012; Rose et al. 2009)

2.2. Leader Member Exchange

Leader-Member Exchange (LMX) is a theory that focuses on the quality of the relationship between a leader and their followers, emphasizing the importance of personalized and trust-based relationships. The concept, LMX is created on the notion that “leaders develop unique types of relationships with individual subordinates. These relationships fall along a continuum ranging from low-quality, in which the relationship is based strictly on the transactional part of the employment contract, to high-quality relationships based on mutual liking, trust, respect, and influence” (Bernerth et al., 2007). The literature provides clear evidence that the quality of the relationship between leaders and each of their followers has been found to affect employee attitudes, work outcomes and well-being (Dulebohn et al., 2012; Epitropaki and Martin, 1999). Leaders tend to form closer relationships with followers who are similar to themselves (e.g., demographic similarity, Waismel-Manor (2010), and personality similarity, Bernerth (2008)). Depending on the quality of this relationship, two subgroups are formed: the in-group and the out-group, resulting in different treatments of subordinates. That is, the in-group often receives high quality LMX relationships, characterized by mutual obligations, respect, trust, commitment, liking and support from their leaders (Graen and Uhl-Bien, 1995; Liden et al., 1993). LMX has a positive relationship with organizational citizenship behaviors, job performance, organizational commitment, job satisfaction and satisfaction with supervisor, and with pay (Dulebohn et al., 2012), task performance and citizenship performance (Martin et al., 2016). LMX is also found to have a negative relationship with turnover intention, actual turnover, role ambiguity and role conflict (Dulebohn et al., 2012). Overall, the above studies consistently demonstrate that positive supervisor– follower relationships at work are critical for employee psychological and physical well-being.

Across organizational work groups, within-group LMX relationships may be differentiated to a greater or lesser extent. In groups with a low degree of LMX differentiation, individuals who are relatively closer to their leaders may not experience the same relative advantages that they might if they were in a group with a higher level of LMX variability (Erdogan & Liden, 2002).

2.3. Job satisfaction

Job satisfaction is the level of contentment an individual has with their job. It is an important factor that affects the productivity and retention of employees in an organization.

Job satisfaction is a vital factor that affects employee performance, retention, and organizational performance. Factors such as work environment, pay and benefits, job security, and work-life balance contribute to job satisfaction. Satisfied employees are more productive, engaged, and less likely to quit their jobs. Organizations that prioritize employee job satisfaction can benefit from increased productivity, reduced turnover costs, and improved overall performance.

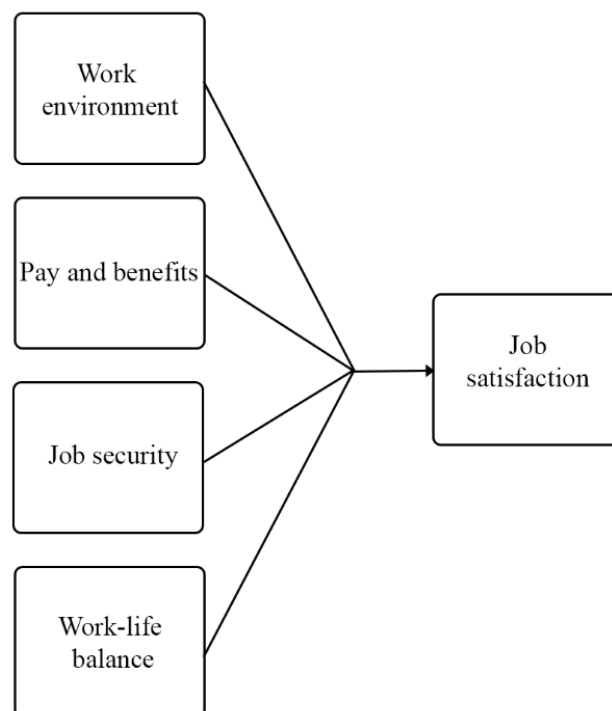


Figure 6. Source: Own edit adapted from Wayan Gede Wijaya et. al (2019)

The work environment plays a significant role in job satisfaction. A healthy and positive work environment can increase job satisfaction, while a negative work environment can decrease it (Ducharme & Martin, 2000). Adequate compensation, benefits, and incentives can increase job satisfaction. Employees who perceive their pay as fair and equitable are more likely to be

satisfied with their job (Locke, 1978). The security of employment is another important factor that contributes to job satisfaction. Employees who feel secure in their jobs are more satisfied than those who do not (Blau & Boal, 1987). The balance between work and personal life is essential for job satisfaction. Employees who have flexibility in their work schedules and are able to balance their personal and professional lives are more satisfied with their jobs (Greenhaus & Allen, 2011).

Job satisfaction has a positive effect on employee retention. Satisfied employees are less likely to quit their jobs than dissatisfied employees (Mobley, 1982). Job satisfaction can also affect employee performance. Satisfied employees are more productive and engaged in their work, leading to better performance (Spector, 1997).

2.4. Job performance

Job performance refers to the level of effectiveness with which an employee performs their job duties. It is a crucial factor in the success of an organization. The quality of job training and development programs is a significant contributor to job performance. Adequate training helps employees to perform their job duties effectively. The design of the job itself can have an impact on job performance. Jobs that are well-designed and match the skills and abilities of the employee tend to lead to better performance (Hackman & Oldham, 1976). Motivation is a crucial factor in job performance. Employees who are motivated to perform their job duties

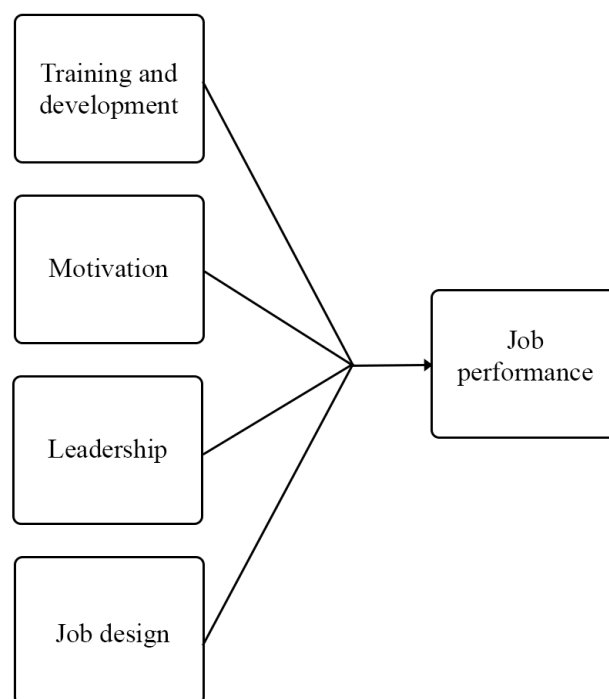


Figure 7. Source: Own edit adapted from Wayan Gede Wijaya et. al (2019)

tend to have higher job performance (Locke & Latham, 2002). Effective leadership can positively affect job performance. Leaders who provide clear direction, feedback, and support tend to have employees with higher job performance (Avolio & Bass, 1995).

Job performance has a significant impact on organizational productivity. Employees who perform well tend to increase the productivity of the organization. Job performance can also have an impact on the reputation of an organization. Organizations with employees who perform well tend to have a positive reputation in the industry (Heskett et al., 1997).

High job performance can lead to increased organizational productivity, employee rewards, and a positive organizational reputation. Organizations that prioritize employee job performance can benefit from increased productivity, employee satisfaction, and a positive reputation.

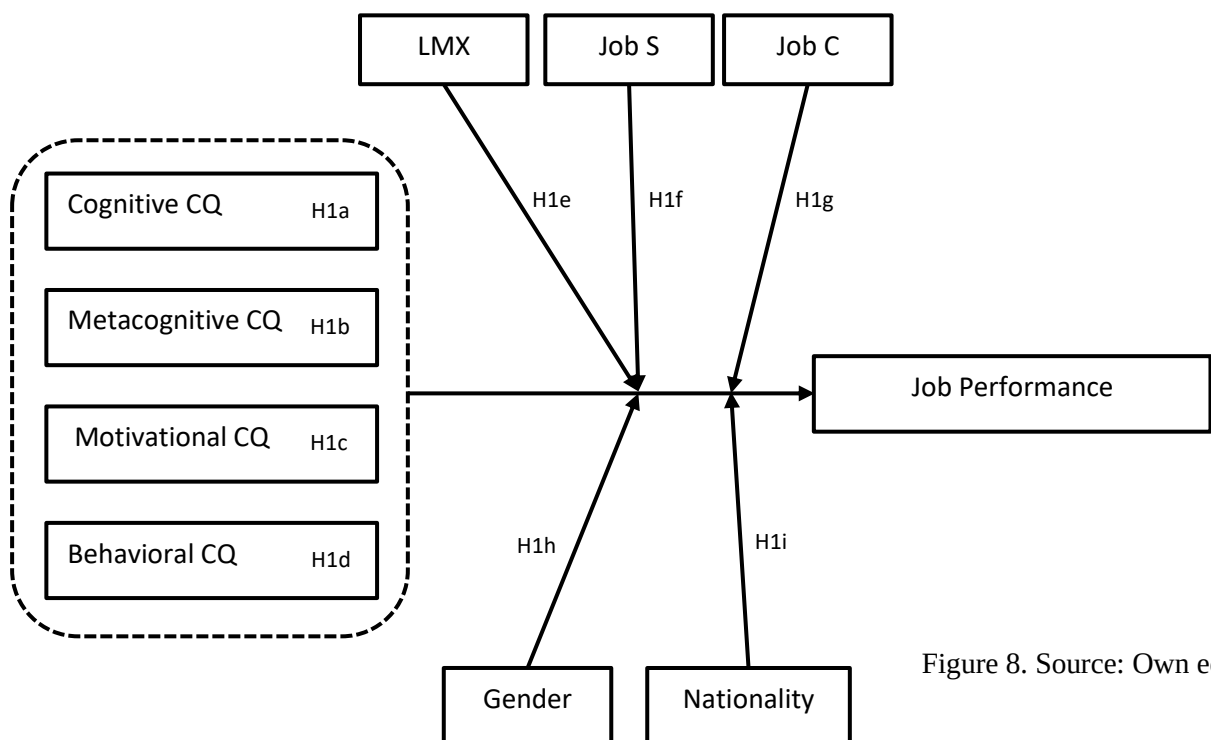


Figure 8. Source: Own edit

H1a Cognitive CQ has positive effect on Job performance.

H2b Metacognitive CQ has positive effect on Job performance.

H2c Motivational CQ has positive effect on Job performance.

H2d Behavioral CQ has positive effect on Job performance.

H2e Leader-Member Exchange has a positive effect on Job performance.

H2f Job satisfaction has a positive effect on Job performance.

H2g Job Commitment has a positive effect on Job performance.

H2h Gender has a positive effect on Job performance.

H2i proposes a mediating role between Job related factors and Job commitment.

2.5 Job commitment

Job commitment is a psychological state that reflects the degree to which an employee identifies with and feels a sense of involvement in his or her job and the organization (Meyer & Allen, 1991). It is considered a key factor in predicting employee behavior, including job performance, turnover, and absenteeism (Mathieu & Zajac, 1990).

Researchers have identified different types of job commitment, including affective

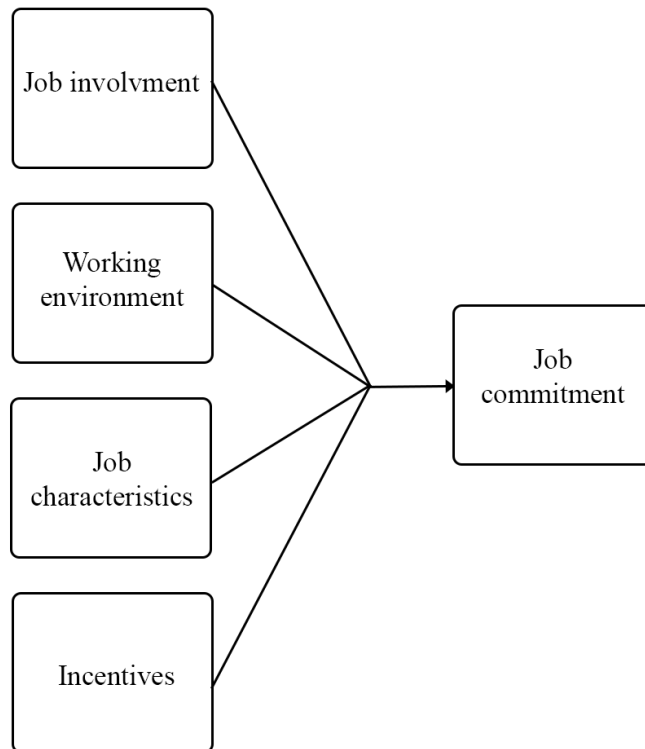


Figure 9. Source: Own edit adapted from Wayan Gede Wijaya et. al (2019)

commitment, continuance commitment, and normative commitment (Meyer & Allen, 1991). Affective commitment refers to an employee's emotional attachment to and identification with the organization, while continuance commitment reflects the employee's perception of the costs associated with leaving the organization. Normative commitment, on the other hand, is based on the employee's belief in the organization's values and goals and a sense of obligation to stay with the organization.

Several factors have been found to influence job commitment, including job characteristics, organizational culture, leadership, and job satisfaction (Meyer & Allen, 1991; Mathieu & Zajac, 1990). For example, job characteristics such as task autonomy and variety have been found to be positively related to job commitment (Hackman & Oldham, 1980). Organizational culture, particularly one that values employee involvement and empowerment, has also been shown to

foster job commitment (Denison, 1990). Leadership styles that are supportive and involve employees in decision-making have been found to increase affective commitment (Eisenberger et al., 1986). Finally, job satisfaction has consistently been found to be positively related to job commitment (Lumley et al., 2011).

Overall, job commitment is an important factor in understanding employee behavior and performance. Understanding the antecedents and outcomes of job commitment can help organizations to create a positive work environment and retain their valued employees.

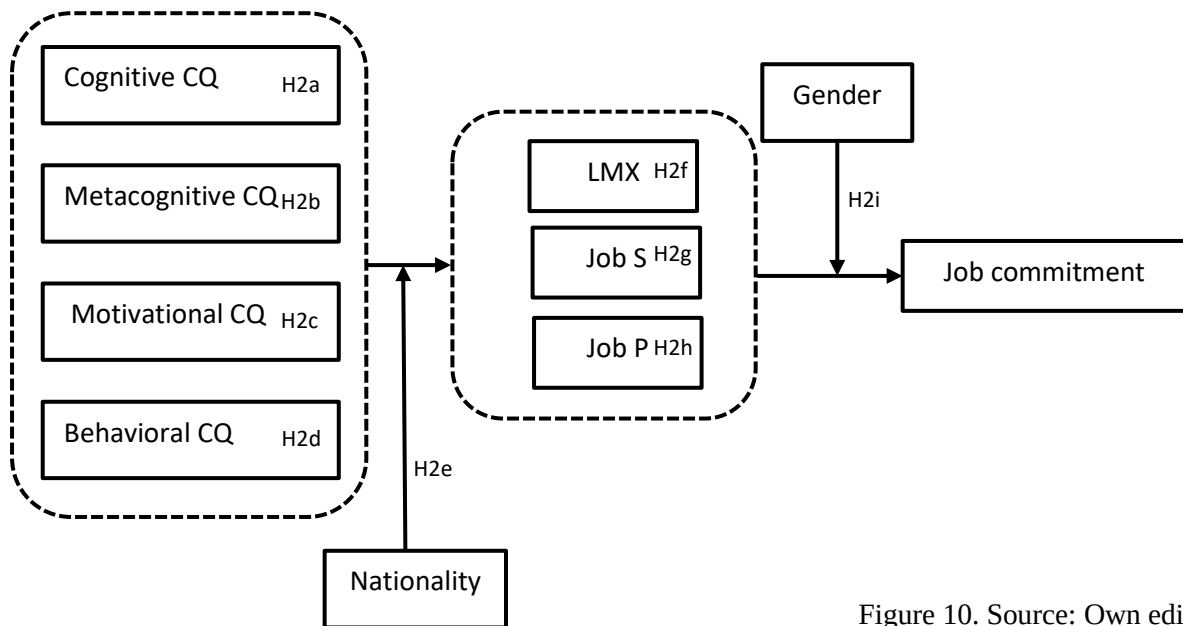


Figure 10. Source: Own edit

H2a proposes a positive linkage between Cognitive CQ and Job commitment.

H2b proposes a positive linkage between Metacognitive CQ and Job commitment.

H2c proposes a positive linkage between Motivational CQ and Job commitment.

H2d proposes a positive linkage between Behavioral CQ and Job commitment.

H2e proposes a mediating role between Cultural Intelligence and Job-related factors.

H2f proposes a positive linkage between Leader-Member Exchange CQ and Job commitment.

H2g proposes a positive linkage between Job satisfaction CQ and Job commitment.

H2h proposes a positive linkage between Job performance CQ and Job commitment.

H2i proposes a mediating role between Job related factors and Job commitment.

3. Methods

3.1. Sample selection and data collection procedure

This study conducted a questionnaire survey for data collection. The questionnaire was written in English and consisted of demographic information and questions used in previous research for assessing individuals' CQ, LMX, job performance, job satisfaction and job commitment. Before participants started filling in the questionnaire, they were provided with an information sheet online stating that participation in the survey was completely voluntary and anonymous, and their responses were confidential. The data were collected from Filipino workers employed at a manufacturing company in Hungary. The final sample consisted of 304 usable responses from eligible workers.

	Items	Number of counts	Percentage
Table 1. Descriptive data of respondents	Gender		
	Male	216	71.1%
	Female	88	28.9%
	Age		
	20-30	146	48.0%
	31-40	127	41.8%
	41 and above	31	10.2%
	Country of origin		
	Philippines	143	47.0%
	Hungary	102	33.6%
	Indonesia	59	19.4%
	Marital status		
	Single	117	38.5%
	Married	166	54.6%
	Divorced	21	6.9%

Table 1 presents descriptive data about the study's respondents, offering insights into their demographic characteristics. The table covers gender, age, country of origin, and marital status, providing both the number of counts and the percentage of respondents within each category. In terms of gender, the majority of respondents are male, comprising 71.1% of the total sample,

while female respondents make up the remaining 28.9%. This gender distribution indicates a higher representation of males in the study. The age distribution of respondents shows that 48.0% fall within the 20-30 age range, 41.8% are aged 31-40, and 10.2% are 41 years old and above. This data highlights a relatively diverse age group among the participants. Regarding the country of origin, the largest group of respondents hails from the Philippines, constituting 47.0% of the sample. Hungary is the second most represented nationality, with 33.6%, and Indonesia accounts for 19.4% of the respondents. This diversity in nationalities suggests a broad and multi-cultural sample. Marital status information indicates that 38.5% of respondents are single, 54.6% are married, and 6.9% are divorced.

4. Measures

4.1 Cultural Intelligence (CQ)

The current study used 30 items to measure CQ using 20 items from Ang et al. (2007) and 10 more items from David C Thomas et al (2015). The CQS comprises metacognitive (7 items), cognitive CQ (8 items), motivational CQ (10 items) and behavioral CQ (5 items). All items are evaluated on a seven-point Likert scale. The choices range from 1 (strongly disagree) to 7 (strongly agree). For instance, the item to measure metacognitive CQ is “I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.” For Cognitive CQ is “I know the rules for expressing non-verbal behavior in other cultures.”. For Motivational CQ is “I enjoy talking with people from different cultures”. For Behavioral CQ is “I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it”.

4.2 Leader-Member Exchange (LMX)

LMX was measured using 6 items from the scale developed by Robert C. Liden et al. (1993). All items are evaluated on a seven-point Likert scale. The choices range from 1 (strongly disagree) to 7 (strongly agree). A sample item from the scale that measures LMX from the subordinate’s perspective is “Regardless of the amount of formal authority your leader has, what are the chances that he/she would ‘bail you out’ at his/her expense?”

4.3 Job performance

Job performance is operationalized by the scale of (Koopmans, 2015), which has 7 items. All items are evaluated on a seven-point Likert scale. The choices range from 1 (strongly disagree) to 7 (strongly agree). Sample items include: “I manage to plan my work so that I finish in time.”

Table 2.

PCA- KMO and Bartlett's Test	KMO	Chi-Square	df	Sig
Cognitive	0.952	2721.339	28	<.001
Metacognitive	0.935	3017.840	21	<.001
Motivational	0.966	4062.098	36	<.001
Behavioral	0.916	1730.358	10	<.001
Leader-Member Exchange	0.919	1350.526	15	<.001
Job Performance	0.952	3235.737	21	<.001
Job Commitment	0.953	3223.041	36	<.001
Job Satisfaction	0.901	984.186	15	<.001

4.4. Job commitment

Job commitment was measured with the scale developed by (Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). All items are evaluated on a seven-point Likert scale. The choices range from 1 (strongly disagree) to 7 (strongly agree). Sample items include: "I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful."

4.5. Job satisfaction

Job satisfaction was measured with the scale developed by Jones et al. (2004) All items are evaluated on a three-point Likert scale. The choices range from 1 (Very dissatisfied) to 3 (Very satisfied). Sample items include: "How satisfied are you with the sense of achievement you get from work?"

5. Data analysis and results

5.1 Reliability

The internal consistency of the constructs was measured using Cronbach's alpha for the scales. The measurement scales demonstrated internal consistency, with scores ranging from 0,892 to 0,981.

To assess convergent validity, confirmatory factor analysis was used to analyze the factor structure and test the construct validity. As suggested by Bagozzi et al. (1991), confirmatory factor analysis has several advantages, such as offering accurate measures of both convergent and discriminant validity and the model's overall degree of fit. KMO and Bartlett test were conducted with the PCA in order to measure correlation among the variables. Table 3 contains the listed data. Items of the measurement scale can be found in Appendix 1.

5.2 Results

5.2.1 Job commitment

To test the formulated hypotheses, a regression model was constructed, wherein each of the independent variables, including Cultural Intelligence, Job-related factors, and Mediating variables (specifically nationality and gender), were individually examined for their relationship with the dependent variable, which was Job commitment. Subsequently, a comprehensive analysis was performed by testing all of the independent variables collectively against the dependent variable. The relevant statistical data and results for this analysis are presented in Table 3.

Table 3.

Job commitment.

Items	Model 1	Model 2	Model 3	Model 4	Hypothesis	Decision
<u>Cultural intelligence</u>						
Cognitive CQ	.132*			.094	H2a	reject
Metacognitive CQ	.252**			-.087	H2b	reject
Motivational CQ	.387***			.126	H2c	reject
Behavioral CQ	.162*			.143*	H2d	accept
<u>Job related factors</u>						
LMX		.130***		.069*	H2e	accept
Job performance		.631***		.485***	H2f	accept
Job satisfaction		.226***		.191***	H2g	accept
<u>Mediator</u>						
Nationality					H2h	reject
Philippines			.601***	.053		
Hungary			-.271***	.085*		
Indonesia			-.420***	.059		
Gender			-.083	-.132**	H2i	accept
<u>Adjust R2</u>	.819	.869	.622	.891		

* The value is significant at the $p < 0.05$ level.

** The value is significant at the $p < 0.01$ level.

*** The value is significant at the $p < 0.001$ level.

Source: Own edition based on survey data.

Cultural Intelligence: Among the various dimensions of cultural intelligence, only Behavioral CQ exhibited a statistically significant positive relationship with job commitment. Cognitive CQ, Metacognitive CQ, and Behavioral CQ did not show a significant association with job commitment.

Job-related Factors: Leader-Member Exchange (LMX), Job Performance, and Job Satisfaction were found to be positively and significantly related to job commitment. Mediating Variables: Nationality did not mediate the relationship between the independent variables and job commitment. On the other hand, Gender was found to be a significant mediating factor, negatively impacting job commitment.

In conclusion, this model indicates that Behavioral CQ, Leader-Member Exchange, Job Performance, and Job Satisfaction play crucial roles in predicting job commitment. Moreover, Gender was identified as a mediating variable affecting the relationship between the independent variables and job commitment.

5.2.2 Job performance

Building upon the previous analysis, a regression model was employed to rigorously test our hypotheses. Within this model, each of the independent variables—namely, Cultural Intelligence, Job-related factors, and the Mediating variables (specifically nationality and gender)—were subjected to individual examination, evaluating their specific contributions to the dependent variable, which was Job performance.

Subsequently, a more comprehensive assessment was conducted by collectively considering the influence of all independent variables on the dependent variable. The comprehensive set of data, including regression coefficients, significance levels, and other relevant statistical indicators, is presented in Table 4.

Table 4.

Job performance.

Items	Model 1	Model 2	Model 3	Model 4	Hypothesis	Decision
<u>Cultural intelligence</u>						
Cognitive CQ	.009			-.017	H1a	reject
Metacognitive CQ	.526***			.244***	H1b	accept
Motivational CQ	.414***			.188**	H1c	accept
Behavioral CQ	-.015			-.061	H1d	reject
<u>Job related factors</u>						
LMX		.090*		.016	H1e	reject
Job commitment		.649***		.395***	H1f	accept
Job satisfaction		.239***		.079*	H1g	accept
<u>Mediator</u>						
Nationality					H1h	accept
Philippines			.531***	.037		
Hungary			-.413***	-.124***		
Indonesia			-.551***	-.200***		
Gender			.075	.159***	H1i	accept
<u>Adjust R2</u>	.843	.865	.710	.911		

* The value is significant at the $p < 0.05$ level.** The value is significant at the $p < 0.01$ level.*** The value is significant at the $p < 0.001$ level.

Source: Own edition based on survey data

In this model, the dependent variable being analyzed is Job Performance. The independent variables are categorized into three groups: Cultural Intelligence, Job-related Factors, and Mediating Variables. Four different regression models (Model 1, Model 2, Model 3, and Model 4) are used to examine the relationships between these variables. Each model tests various combinations of independent variables.

The Hypothesis column outlines the specific hypotheses tested for each independent variable. For instance, H1a examines the impact of Cognitive CQ (Cultural Intelligence) on job performance. The Decision column presents the results and decisions made based on statistical analysis, particularly focusing on the p-values associated with the coefficients of the independent variables. In terms of Cultural Intelligence, only Metacognitive CQ and

Motivational CQ exhibit a statistically significant positive relationship with job performance. Cognitive CQ and Behavioral CQ do not demonstrate significant associations.

When it comes to Job-related Factors, Leader-Member Exchange (LMX) is found to have a significant positive relationship with job performance. Additionally, Job Commitment is positively associated with job performance, while Job Satisfaction has a somewhat less significant positive impact.

The study identifies Nationality as a mediating variable with a significant relationship with job performance. The nationalities of the Philippines, Hungary, and Indonesia each have varying impacts on job performance. Gender is also a significant mediating factor, positively influencing job performance. In summary, the research findings reveal that Metacognitive CQ and Motivational CQ, along with Leader-Member Exchange, Job Commitment, and Gender, are significant factors that influence job performance. Additionally, the nationality of respondents plays a role as a mediating variable affecting job performance. These results provide valuable insights into the factors impacting job performance in diverse settings and have practical implications for improving employee performance and job satisfaction.

5.2.3 Differences among nationalities

Table 5. Differences among nationalities.

Cultural intelligence and other job-related factors	Nationalities: Group means ^a			Univariate F-value ^b	Scheffe multiple comparison ^c
	Indonesia (n=59)	Hungary (n=102)	Philippines (n=143)		
Cognitive CQ	-1.34	-0.30	1.64	172.96	P>H; P>I
Metacognitive CQ	-1.61	-0.13	1.74	336.17	P>H>I
Motivational CQ	-1.42	-0.28	1.70	218.02	P>H; P>I
Behavioral CQ	-1.33	-0.32	1.64	171.45	P>H>I
LMX	-0.96	-0.57	1.53	93.91	P>H; P>I
Job performance	-1.47	-0.49	1.96	364.49	P>H; P>I
Job commitment	-1.35	-0.51	1.86	251.27	P>H; P>I
Job satisfaction	-1.43	-0.42	1.85	277.03	P>H; P>I

^aNormalized scale (Mean = 0; $\sigma = 1$)

^bF-value is significant where $p \leq 0.001$ in all cases.

^cPost-hoc analysis of differences ($p \leq 0.05$) demonstrating the extent to which nationalities differ in cultural intelligence and other job-related factors where: P = Philippines; H = Hungary; and, I = Indonesia.

Table 5 investigates variations among different nationalities in terms of cultural intelligence and its effects on various job-related factors. The table provides three key components: group means for Indonesia, Hungary, and the Philippines, univariate F-values, and Scheffe multiple comparisons. These components collectively offer insights into how individuals from these countries differ in relation to the variables of interest.

The "Nationalities: Group Means" section in the table displays the means for the variables under consideration for each of the three national groups. These means are accompanied by the respective sample sizes (n), indicating the number of participants from each country.

The "Univariate F-value" is a crucial statistical measure. In this context, it signifies the outcomes of an analysis of variance (ANOVA) testing whether substantial differences exist among nationalities regarding the variables being studied. Notably, in all cases, the F-values are highly significant, with p-values less than or equal to 0.001. This suggests that significant disparities indeed exist among the national groups with respect to these variables.

The "Scheffe Multiple Comparison" section conducts post-hoc analyses to pinpoint the specific distinctions between nationalities concerning cultural intelligence and other job-related factors. The labels "P" (Philippines), "H" (Hungary), and "I" (Indonesia) are used to represent each of the three national groups. The results of these comparisons indicate whether significant differences are present among these groups.

In summary, the table's analysis highlights the substantial role of nationalities in shaping cultural intelligence and its influence on various job-related factors. The statistically significant F-values emphasize the existence of notable distinctions among these national groups.

Furthermore, the Scheffe multiple comparisons unveil specific differences, particularly between the Philippines and both Hungary and Indonesia, indicating that individuals from the Philippines significantly differ from those in the other two countries concerning cultural intelligence and its consequences for job-related factors. Additionally, differences between Hungary and Indonesia are observed for some variables. These findings underscore the significance of considering cultural and national differences when exploring outcomes within the workplace, with potential implications for cross-cultural management and international human resources practices.

6. Discussions and conclusions

6.1 Theoretical contributions

The aim of this study was to examine the impact of CQ (cognitive, metacognitive, motivational and behavioral) on job related factors such as Leader-Member Exchange, job performance, job commitment and job satisfaction among Filipino, Indonesian expatriate workers and Hungarian employees. The study yielded 5 significant findings. One of the key findings is the noticeable differences between Filipino and Indonesian workers. Unlike the Global Research Performance data, which showed only minor variations, this study highlights a clear preference for Filipinos. This underscores the need for further research into how individuals from different nationalities perform as expatriates in global work settings, offering a promising direction for future studies. Secondly, the research uncovers the moderating role of gender and nationality in the relationship between cultural intelligence and job-related factors, particularly job commitment and job performance. Interestingly, the findings reveal that males tend to outperform females in terms of job performance, while females exhibit higher levels of job commitment which is contrary to research done by Mohd Suki, N., & Mohd Suki, N. (2011).

Additional findings reveal an interdependent relationship between job commitment and job performance, consistent with the results of prior research (Bakan et al., 2014). This implies that high job performance is linked to high job commitment, and vice versa. Motivational CQ and Metacognitive CQ have been found to exert a positive influence on job performance, aligning with previous research findings (e.g., Nafei, 2013). However, it is noteworthy that, in this study, all four dimensions were investigated individually, a relatively rare approach, as most studies typically examine all four dimensions collectively. As a consequence, the subsequent discovery is particularly exceptional: Behavioral CQ demonstrates a positive impact on job commitment, thus representing a unique finding.

6.2 Managerial implications

In the early stages, it is advisable to be selective when choosing expatriates who demonstrate a high degree of cultural intelligence, especially in metacognitive, motivational, and behavioral dimensions. Making such a discerning choice has the potential to enhance job performance and cultivate a deeper commitment to the organization. These crucial competencies can be systematically evaluated during the recruitment process using surveys and expert-conducted interviews. By implementing these measures, potential conflicts can be proactively addressed, and the integration of expatriates into the company can be made more seamless. On a more balanced note, it is feasible to improve one's cultural intelligence through training programs, potentially resulting in enhanced overall performance and a higher level of commitment. However, it's important to recognize that not all aspects of cultural intelligence are equally amenable to change. While cognitive and metacognitive dimensions can be significantly enhanced through training and education, motivational and behavioral aspects may be more resistant to change. Furthermore, it's noteworthy that gender distinctions have been observed. Findings from this study suggest that female expatriates tend to display a greater level of commitment, while male expatriates tend to exhibit higher performance. It's important to emphasize that the level of commitment may hold somewhat diminished significance, especially in the context of fixed-term contracts, typically lasting 2 to 3 years. Nevertheless, if a company values experience and knowledge within its operational framework, the recruitment of female employees becomes a prudent consideration. Simultaneously, recruiting female employees may not only benefit male well-being but also facilitate their integration into the company culture.

7. References

- Afsar, B., & Umrani, W. A. (2019). Transformational leadership and innovative work behavior: The role of motivation to learn, task complexity and innovation climate. *European Journal of Innovation Management*, 23(3), 433-452. doi: 10.1108/EJIM-12-2018-0257
- Allen, N.J. and Meyer, J.P. (1991) A Three-Component Conceptualization of Organizational Commitment. *Human Resource Management Review*, 1, 61-89.[http://dx.doi.org/10.1016/1053-4822\(91\)90011-Z](http://dx.doi.org/10.1016/1053-4822(91)90011-Z)
- Ang, S., & Van Dyne, L. (2008). *Handbook of cultural intelligence: Theory, measurement, and application*. Armonk, NY: M.E. Sharpe, Inc. ISBN: 9780765622624.
- Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., & Chandrasekar, N. A. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. *Management and Organization Review*, 3(3), 335–371. <https://doi.org/10.1111/j.1740-8784.2007.00082.x>.
- Avolio, B. J., & Bass, B. M. (1995). Individual consideration viewed at multiple levels of analysis: A multi-level framework for examining the diffusion of transformational leadership. *The Leadership Quarterly*, 6(2), 199–218. [https://doi.org/10.1016/1048-9843\(95\)90035-7](https://doi.org/10.1016/1048-9843(95)90035-7)
- Bagozzi, Richard P., et al. “Assessing Construct Validity in Organizational Research.” *Administrative Science Quarterly*, vol. 36, no. 3, 1991, pp. 421–58. JSTOR, <https://doi.org/10.2307/2393203>
- Bakan, I., Buyukbese, T., Erşahan, B., & Sezer, B. (2014). Effects of Job Satisfaction on Job Performance and Occupational Commitment.
- Bernerth, J. B., Armenakis, A. A., Feild, H. S., Giles, W. F., & Walker, H. J. (2007). Leader-member social exchange (LMSX): Development and validation of a scale. *Journal of Organizational Behavior*, 28(8), 979-1003. doi: 10.1002/job.443
- Black, J. S., Mendenhall, M., & Oddou, G. (1991). Toward a comprehensive model of international adjustment: An integration of multiple theoretical perspectives. *Academy of Management Review*, 16(2), 291-317 <https://doi.org/10.2307/258863>
- Blau, G. J., & Boal, K. B. (1987). Conceptualizing how job involvement and organizational commitment affect turnover and absenteeism. *The Academy of Management Review*, 12(2), 288–300. <https://doi.org/10.2307/258536>

- Brislin, R. W., Worthley, R., & MacNab, B. (2006). Cultural intelligence: Understanding behaviors that serve people's goals. *Group & Organization Management*, 31(1), 40-55.
- Chen, G., Kirkman, B. L., Kim, K., & Farh, C. I. C. (2010). When does cross-cultural motivation enhance expatriate effectiveness? A multi-level investigation of the moderating roles of subsidiary support and cultural distance. *Academy of Management Journal*, 53(5), 1110–1130. <https://doi.org/10.5465/amj.2010.54533217>.
- Chen, G., Sharma, P. N., Edinger, S. K., Shapiro, D. L., & Farh, J. L. (2011). Motivating and demotivating forces in teams: Cross-level influences of empowering leadership and relationship conflict. *Journal of Applied Psychology*, 96(3), 541.
- Chua, R. Y. J., Morris, M. W., & Mor, S. (2012). Collaborating across cultures: Cultural metacognition and affect-based trust in creative collaboration. *Organizational Behavior and Human Decision Processes*, March, 118(2), 116-131. DOI: 10.1016/j.obhdp.2012.01.005
- Danish, R., Munir, Y., & Saif-ur-Rehman. (2012). The impact of motivation on employee's commitment: Evidence from public and private sector of Pakistan. *Business Review*, 7(1), 83-93.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. Berlin: Springer Science & Business Media. <https://doi.org/10.1007/978-1-4899-2271-7>
- Denison, D. R. (1990). *Corporate culture and organizational effectiveness*. John Wiley & Sons.
- Ducharme, L. J., & Martin, J. K. (2000). Unrewarding work, coworker support, and job satisfaction: A test of the buffering hypothesis. *Work and Occupations*, 27(2), 223–243. <https://doi.org/10.1177/0730888400027002005>
- Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L., & Ferris, G. R. (2012). A meta-analysis of antecedents and consequences of leader-member exchange: Integrating the past with an eye toward the future. *Journal of Management*, 38(6), 1715–1759. <https://doi.org/10.1177/0149206311415280>
- Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Stanford University Press.
- Earley, P. C., & Mosakowski, E. (2004). Cultural intelligence. *Harvard Business Review*, 82(10), 139-146.

- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500–507. <https://doi.org/10.1037/0021-9010.71.3.500>
- Epitropaki, O., & Martin, R. (1999). The impact of relational demography on the quality of leader–member exchanges and employees' work attitudes and well-being. *Journal of Occupational and Organizational Psychology*, 72(2), 237–240. <https://doi.org/10.1348/096317999166635>
- Erdogan, B. and Liden, R.C. (2002) Social Exchanges in the Workplace: A Review of Recent Developments and Future Research Directions in Leader-Member Exchange Theory. In: Neider, L.L. and Schriesheim, C.A., Eds., *Leadership*, Information Age, Greenwich, 65-114.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly*, 6(2), 219–247. [https://doi.org/10.1016/1048-9843\(95\)90036-5](https://doi.org/10.1016/1048-9843(95)90036-5)
- Greenhaus, J. H., & Allen, T. D. (2011). Work–family balance: A review and extension of the literature. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (pp. 165–183). American Psychological Association.
- Gudykunst, W. B., & Ting-Toomey, S. (1988). Culture and affective communication. *American Behavioral Scientist*, 31(3), 384-400. doi: 10.1177/0002764880310030.
- Hackman, J. R. (1980). Work redesign and motivation. *Professional Psychology*, 11(3), 445–455. <https://doi.org/10.1037/0735-7028.11.3.445>
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior & Human Performance*, 16(2), 250–279. [https://doi.org/10.1016/0030-5073\(76\)90016-7](https://doi.org/10.1016/0030-5073(76)90016-7)
- Heskett, J. L., & Sasser, W. E. (2010). The Service Profit Chain. In D. Dimitrov (Ed.), *Handbook of Service Science* (pp. 19-29). Springer. https://doi.org/10.1007/978-1-4419-1628-0_3
- Hirschfeld, R. R., & Bernerth, J. B. (2008). Mental efficacy and physical efficacy at the team level: Inputs and outcomes among newly formed action teams. *Journal of Applied Psychology*, 93(6), 1429–1437. <https://doi.org/10.1037/a0012574>

- Jones, M. K., Jones, R. J., Latreille, P. L., & Sloane, P. J. (2009). Training, job satisfaction, and workplace performance in Britain: Evidence from WERS 2004. *Labour*, 23(s1), 139-175. <https://doi.org/10.1111/j.1467-9914.2008.00434.x>
- KSH. (2024). A Magyarországon tartózkodó külföldi állampolgárok a tartózkodás célja szerint, január 1. https://www.ksh.hu/stadat_files/nep/hu/nep0025.html
- Lee, L. Y., Veasna, S., & Sukoco, B. M. (2014). The antecedents of cultural effectiveness of expatriation: Moderating effects of psychological contracts. *Asia Pacific Journal of Human Resources*, 52(2), 215–233. <https://doi.org/10.1111/j.1744-7941.2013.00055.x>.
- Liden, R. C., Wayne, S. J., & Stilwell, D. (1993). A longitudinal study on the early development of leader-member exchanges. *Journal of Applied Psychology*, 78(4), 662–674. <https://doi.org/10.1037/0021-9010.78.4.662>
- Lin, Y. C., Chen, A. S. Y., & Song, Y. C. (2012). Does your intelligence help to survive in a foreign jungle? The effects of cultural intelligence and emotional intelligence on cross-cultural adjustment. *International Journal of Intercultural Relations*, 36(4), 541–552. <https://doi.org/10.1016/j.ijintrel.2012.03.001>.
- Locke, E. A. (1978). "Job satisfaction reconsidered": Reconsidered. *American Psychologist*, 33(9), 854–855. <https://doi.org/10.1037/0003-066X.33.9.854>
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57(9), 705–717. <https://doi.org/10.1037/0003-066X.57.9.705>
- Lumley, E.J., Coetzee, M., Tladinyane, R. and Ferreira, N. (2011) Exploring the Job Satisfaction and Organizational Commitment of Employees in the Information Technology Environment. *Southern African Business Review*, 15, 100-118.
- Martin, R., Guillaume, Y., Thomas, G., Lee, A., & Epitropaki, O. (2015). Leader-member exchange (LMX) and performance: A meta-analytic review. *Personnel Psychology*, 68(3), 557–591. doi: 10.1111/peps.12100.
- Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, 108(2), 171–194. <https://doi.org/10.1037/0033-2909.108.2.171>

- Michaels, C. E., & Spector, P. E. (1982). Causes of employee turnover: A test of the Mobley, Griffeth, Hand, and Meglino model. *Journal of Applied Psychology*, 67(1), 53–59. <https://doi.org/10.1037/0021-9010.67.1.53>
- Mohd Suki, N., & Mohd Suki, N. (2011). Job satisfaction and organisational commitment: The effect of gender. <https://eprints.ums.edu.my/id/eprint/2826/1/ar0000000048.pdf>
- Mor, S., Morris, M. W., & Joh, J. (2013). Identifying and training adaptive cross-cultural management skills: The crucial role of cultural metacognition. *Academy of Management Learning & Education*, 12(3), 453-475. DOI:10.5465/amle.2012.0202
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14(2), 224-247. [https://doi.org/10.1016/0001-8791\(79\)90072-1](https://doi.org/10.1016/0001-8791(79)90072-1).
- Ott, D. L., & Michailova, S. (2016). Cultural intelligence: A review and new research avenues. *International Journal of Management Reviews*, 18(2), 151-171. doi: 10.1111/ijmr.12118.
- Palthe, J. (2004). The relative importance of antecedents to cross-cultural adjustment: Implications for managing a global workforce. *International Journal of Intercultural Relations*, 28(1), 37–59. <https://doi.org/10.1016/j.ijintrel.2003.12.004>.
- Peterson, C., & Smith, D. B. (2015). Expatriate selection: A review and critique. *International Journal of Management Reviews*, 17(4), 413-435
- Presbitero, A., & Quita, C. (2017). Expatriate career intentions: Links to career adaptability and cultural intelligence. *Journal of Vocational Behavior*, 98, 118–126. <https://doi.org/10.1016/j.jvb.2016.11.001>.
- Portfolio. (2023, June 12). Kiderült, honnan jönnek a külföldiek Magyarországra. <https://www.portfolio.hu/gazdasag/20230612/kiderult-honnan-jonnek-a-kulfoldiek-magyarorszag-618598>
- Ramos-Villagrasa, P. J., Barrada, J. R., Fernández-del-Río, E., & Koopmans, L. (2019). Assessing job performance using brief self-report scales: The case of the Individual Work Performance Questionnaire. *Journal of Work and Organizational Psychology*, 35(3), 195–205. <https://doi.org/10.5093/jwop2019a21>
- Rockstuhl, T., & Van Dyne, L. (2018). A bi-factor theory of the four-factor model of cultural intelligence: Meta-analysis and theoretical extensions. *Organizational Behavior and Human Decision Processes*, 148, 124–144. DOI: 10.1016/j.obhdp.2018.07.005

- Rockstuhl, T., Seiler, S., Ang, S., Van Dyne, L., & Annen, H. (2011). Beyond general intelligence (IQ) and emotional intelligence (EQ): The role of cultural intelligence (CQ) on cross-border leadership effectiveness in a globalized world. *Journal of Social Issues*, 67(4), 825-840. doi:10.1111/j.1540-4560.2011.01730.x
- Rose, R. C., Kumar, N., & Pak, O. G. (2009). The Effect of Organizational Learning on Organizational Commitment, Job Satisfaction And Work Performance. *Journal of Applied Business Research (JABR)*, 25(6). <https://doi.org/10.19030/jabr.v25i6.995>
- Setti, I., Sommovigo, V. & Argentero, P. Enhancing expatriates' assignments success: the relationships between cultural intelligence, cross-cultural adaptation and performance. *Curr Psychol* 41, 4291–4311 (2022). <https://doi.org/10.1007/s12144-020-00931-w>
- Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. Sage Publications, Inc.
- Templer, K. J., Tay, C., & Chandrasekar, N. A. (2006). Motivational Cultural Intelligence, Realistic Job Preview, Realistic Living Conditions Preview, and Cross-Cultural Adjustment. *Group & Organization Management*, 31(1), 154–173. <https://doi.org/10.1177/1059601105275293>
- Thomas, D. C., Liao, Y., Aycan, Z., & Cerdin, J.-L. (2015). Cultural Intelligence: A Theory-based, Short Form Measure. *Journal of International Business Studies*, 46(9), 1099-1118. <https://doi.org/10.1057/jibs.2014.67>
- Van Dyne, L. N. A., & Livermore, D. (2010). Cultural Intelligence: A Pathway for Leading in a Rapidly Globalizing World. *Journal of Business and Psychology*, 25(4), 617-630.
- Van Dyne, L., Ang, S., Ng, K. Y., Rockstuhl, T., Tan, M. L., & Koh, C. (2012). Sub-dimensions of the four-factor model of cultural intelligence: Expanding the conceptualization and measurement of cultural intelligence. *Social and Personality Psychology Compass*, 6(4), 295–313. <https://doi.org/10.1111/j.1751-9004.2012.00429.x>
- Waismel-Manor, R., Tziner, A., Berger, E., & Dikstein, E. (2010). Two of a kind? Leader-member exchange and organizational citizenship behaviors: The moderating role of leader-member similarity. *Journal of Applied Social Psychology*, 40(1), 167–181. <https://doi.org/10.1111/j.1559-1816.2009.00568.x>

Ward, C., Fischer, R., & Frey, L. M. (2015). The influence of cultural knowledge structure on perceptions of leadership behaviors and subordinate outcomes in multicultural work groups. *Journal of Cross-Cultural Psychology*, 46(5), 651-669. doi:10.1177/0022022115584792

Ward, J., Cody, F., Schaalje, G., McBride, R., & Blyth, D. (2015). The effects of music interventions on anxiety in the patient waiting area. *Journal of Music Therapy*, 52(4), 480-504. doi:10.1093/jmt/thv021

Wijaya, W. G., Sapta, I. K. S., Agung, A. A. P., & Sudja, I. N. (2019). Leadership Effect and Work Motivation to Employee's Performance with Work Satisfaction as a Mediation Variable (Study in the Denpasar City Regional Agency). *International Journal of Contemporary Research and Review*, 10(02), 21385-21394. <https://doi.org/10.15520/ijcrr.v10i02.667>

Wijaya, W. G., Sapta, I. K. S., Agung, A. P., & Sudja, I. N. (2019). Leadership Effect and Work Motivation to Employee's Performance with Work Satisfaction as a Mediation Variable (Study in the Denpasar City Regional Agency). *International Journal of Contemporary Research and Review*, 10(02), 21385-21394. doi:10.15520/ijcrr.v10i02.667

W.A. Nafei, The impact of cultural intelligence on employee job performance: An empirical study of King Abdel-Aziz Hospital in Al-Taif Governorate, Kingdom of Saudi Arabia. *International Journal of Business and Management*, Vol. 8, No. 1, 26-43, 2013.

Zhang, J., Gao, Y., & Li, Y. (2018). The impact of trait emotional intelligence on intercultural communication: The mediating role of intercultural sensitivity. *Personality and Individual Differences*

Appendix

Items of measurements.

Demographic questions

What is your gender?

What is your age?

What is your marital status?

Which country are you from?

	Strongly disagree -> strongly agree						
Cultural Intelligence							
Metacognitive CQ	1	2	3	4	5	6	7
1. I am conscious of the cultural knowledge I use when I am interacting with people with different cultural backgrounds.							
2. I am conscious of the cultural knowledge I apply to cross-cultural interactions.							
3. I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.							
4. I check the accuracy of my cultural knowledge as I interact with people from different cultures.							
5. I am aware of the cultural knowledge I use when interacting with someone from another culture.							
6. I am aware that I need to plan my course of action when in different cultural situations and with culturally different people.							
7. I think a lot about the influence that culture has on my own behavior and that of others who are culturally different.							
Cognitive CQ							
1. I know the legal and economic systems of other cultures.							
2. I know the religious beliefs of other cultures.							
3. I know the marriage systems of other cultures.							

4. I know the arts and crafts of other cultures.
5. I know the rules (e.g., grammar) of other languages.
6. I know the rules for expressing nonverbal behavior in other cultures.
7. I know the ways in which cultures around the world are different.
8. I can give examples of cultural differences from my personal experience, reading, and so on.

Motivational CQ

1. I enjoy talking with people from different cultures.
2. I have the ability to accurately understand the feelings of people from other cultures.
3. I sometimes try to understand people from another culture by imagining how something looks from their perspective.
4. I can change my behavior suit different cultural situations and people.
5. I accept delays without becoming upset when in different cultural situations and with culturally different people.
6. I enjoy interacting with people from different cultures.
7. I enjoy living in cultures that are unfamiliar to me.
8. I am confident that I can socialize with locals in a culture that is unfamiliar to me.
9. I am confident that I can get accustomed to the shopping conditions in a different culture.
10. I am sure that I can deal with the stresses of adjusting to a culture that is new to me.

Behavioral CQ

1. I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.

2. I change my non-verbal behavior when a cross-cultural situation requires it.
3. I use pause and silence differently to suit different cross-cultural situations.
4. I vary the rate of my speaking when a cross-cultural situation requires it.
5. I alter my facial expressions when a cross-cultural interaction requires it.

	Strongly disagree -> strongly agree						
Leader-member exchange	1	2	3	4	5	6	7
1. Regardless of how much power he/she has built into his/her position, my supervisor would be personally inclined to use his/her power to help me solve problems in my work.							
2. I can count on my supervisor to "bail me out" even at his or her own expense, when I really need it.							
3. My supervisor understands my problems and needs							
4. My supervisor recognizes my protentional							
5. My supervisor has enough confidence in me that he/she would defend and justify my decision if I were not present to do so.							
6. I usually know where I stand with my supervisor.							

	Strongly disagree -> strongly agree						
Job performance	1	2	3	4	5	6	7
1. I manage to plan my work so that I finish in time							
2. I keep in mind to work result I needed to achieve.							
3. I'm able to set priorities.							
4. I'm able to carry out my work efficiently.							
5. I manage my time well.							

6. On my own initiative, I start new task when my old tasks are completed.

7. I work on keeping my work skills up-to-date.

Job commitment

1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.

2. I talk up this organization to my friends as a great organization to work for.

3. I feel very little loyalty to this organization.

4. I would accept almost any type of job assignment in order to keep working for this organization.

5. I find that my values and the organization's values are very similar.

6. I am proud to tell others that I am part of this organization.

7. I could just as well be working for a different organization as long as the type of work was similar.

8. This organization really inspires the very best in me in the way of job performance.

9. It would take very little change in my present circumstances to cause me to leave this organization.

10. I am extremely glad that I chose this organization to work for over others I was consider at the time I joined.

	Very dissatisfied-> very satisfied		
Job satisfaction	1	2	3
1. How satisfied are you with the sense of achievement you get from work?			
3. How satisfied are you with the scope for using your own initiative?			
4. How satisfied are you with your influence over the job?			
5. How satisfied are you with the training you received?			
6. How satisfied are you with the amount of pay you receive?			
7. How satisfied are you with the work itself?			