The Impact of Cross Cultural Competence on Employee Performance Mediated by Global Mindset in Overseas Construction Projects

(Lessons from a Large Construction Company in Indonesia)

Ahmad Amiriansjah Pabittei*, Risa Bhinekawati
Sekolah Tinggi Manajemen IPMI
Jakarta, Indonesia
*ahmad.pabittei@ipmi.ac.id, risa.bhinekawati@ipmi.ac.id

Abstract—The international construction industry is one of the most strategic sector driving the global economy. To make construction industry organizations, groups and project teams more efficient and effective, it is imperative to understand the role that culture plays within them. Hence, this study aims to investigate the impact of cross cultural competence on employee performance, mediated by global mindset, in overseas construction projects. This study applied a quantitative approach and used primary data sources obtained directly from respondents, which involves 100 employees of PT Wijaya Karya (Persero) Tbk, who have work experience in overseas projects dominantly located in the regions of Southeast Asia, the Middle East and Africa as well as projects in Algeria, Saudi Arabia, United Arab Emirates, Myanmar, Malaysia, Philippines, Timor Leste, Niger and Taiwan, as respondents. Dissemination and the data collection are carried out from July 8, 2019 to July 12, 2019. The analysis technique used in this study is Partial Least Square (PLS) Structural Equation Modeling (SEM), with the help of SmartPLS program. The findings indicated that cross cultural competence has positive impacts to both global mindset and employee performance. Global mindset also has positive impact on employee performance in overseas construction projects. The direct relation between cross cultural competence and employee performance is stronger when it is compared to indirect relation between the two through global mindset. This study provides empirical evidence on the roles of cross cultural competence and global mindset on the employee performance over overseas construction projects.

Keywords: cross cultural competence, global mindset, employee performance, overseas construction projects, state-owned enterprise

I. INTRODUCTION

The globalization era has opened doors and erased boundaries among nations in the context of business transactions and trade. This momentum is also impacted the construction industry, which has given opportunities for construction players to introduce their services to cross-nation markets [1]. However, exporting construction services to foreign markets needs many considerations in connection with political, cultural and financial economics, as well as legal aspects and environmental issues. Besides developing Cross Cultural Competence on employees, an organization working on the internationalization strategy should also consider other things, including abilities to interpret the global social and economic environment around them [2]. Global mindset is a set of individual attributes that enable the global executives to succeed in influencing those from different parts of the world to work together to achieve corporate objectives [3]. A global mindset has become increasingly important for managers to manage and compete effectively in global markets. In fact, research has recently shown that having a global mindset is necessary for successful internationalization [3]. Global Mindset is more limited to what is in the mind and is not manifested in actual behavior, while Cross Cultural Competence focuses on and incorporates behavioral manifestations [4]. PT Wijaya Karya [5] states that performance is the quality and quantity achieved by an employee to perform tasks in accordance with the responsibilities given to them. Employee performance is important to measure how far employees can carry out the tasks assigned to them. Furthermore, despite the potential growth of construction services exports, the study on cross cultural competence, global mindset and employee performance is very limited [6].

To fill in this research gaps, this research aims to analyze the impact of cross cultural competence, on employee performance, mediated by global mindset, in overseas construction projects. The research is conducted at one of Indonesia’s largest construction company, PT Wijaya Karya (Persero) Tbk (WIKA), which was established in 1960. Based on WIKA Annual Report 2018 [7], WIKA’s revenue from foreign market segment has increased by 43.29%, with the growth of current year net profit by 70.98% in the past five years. WIKA’s overseas projects dominantly located in the regions of Southeast Asia, the Middle East and Africa.

To achieve the research objectives, this research answers three questions: 1) whether cross cultural competence has
positive impact on global mindset; 2) whether cross cultural competence has positive impact on employee performance; and 3) whether global mindset has positive impact on employee performance.

II. LITERATURE REVIEW

A. Cross Cultural Competence and Global Mindset

Cross Cultural Competence is defined as the ability to interact appropriately and effectively and with other cultures [8]. Thus, to be able to function effectively, it has become important for professionals involved in international projects with participants from different cultural backgrounds to comprehend other’s expectations and beliefs [9]. One area where cross-cultural research has flourished is the area of business psychology. Here, the need for employees who are able to function effectively across different cultures has brought a great deal of inquiry into which factors enable expatriate adjustment e.g., [10,11]. Among them, the concepts of cross cultural competence and global mindset has been seen as key success factors for organizations going international. Here, Levy et al. define global mindset as “an individual’s stock of knowledge, cognitive, and psychological attributes that enable him/her to influence individuals, groups and organizations from diverse sociocultural system” [12]. As for the concept of cross cultural competence, Chan and Tse defines it as the ability of individuals in working effectively in different cultures [8].

Indeed, there are overlaps between the concepts of cross cultural competence and global mindset. Thomson [13] concept of cross cultural competence also is in line with Javidan and Bowen [14] concept of global mindset, relating to the interaction and the way someone dealing with other people. Accordingly, leaders with a global mindset, possessing high levels of cultural intelligence and high levels of global business orientation, are optimally equipped to lead both the business and people in global settings. Leaders with high global mindset present higher capacity to develop good relationships with followers in the global environment, while assuring they are committed to the organization. These leaders are also capable of changing and adapting to any environment to assure the strategic success of the organization. Hence, both cross cultural competence and global mindset relates to the individual effectiveness in dealing with others. Accordingly, the first hypothesis can be proposed as follows.

H1: Cross-Cultural Competence has a positive impact on Global Mindset.

B. Cross Cultural Competence and Employee Performance

Human resource management according to Hasibuan is the science and art of managing relationships and the role of manpower in order to effectively and efficiently help realize company goals, employees and society [15]. Similarly, Mondy defines human resources as the utilization of a number of individuals to achieve organizational goals. One of the factors that influence the success of a company is individual employee performance [16]. Performance is the result of certain activities in a specified period of time or the production of a specific job [17]. Performance is also said as a systematic evaluation of the work carried out by employees and a potential to be developed [18]. Other researchers said performance is a universal concept of measuring the operational effectiveness of a company, or certain parts of the company and predetermined employee operational standards [19]. Mondy states performance is the quality and quantity achieved by an employee to perform tasks in accordance with the responsibilities given [6]. Employee performance is important to measure how far employees can carry out the tasks assigned to him and because of that, we need to have clear and measurable criteria as a reference [6]. One of the performance measures used to measure employee performance is the intellectual ability supported by ability to manage themselves and the ability to build relationships with others [20].

Individuals and organizations in a project have different values, beliefs, and norms [21,22] and among project participants, this cultural diversity can impact knowledge transfer [23,24], and relationships in a contract [8,24]. A number of studies have scrutinized cultural diversity and its impact on a project. For example, Kivrak studied the effect of cultural diversity on construction management practices to the success of a project by interviewing senior managers in the United Kingdom [25]. However, a consensus has yet to be reached on whether cultural diversity impacts project performance positively or not. Barkema claimed that cultural diversity decreases project performance [26]. This claim is supported by Mahalingam and Levitt who argued that cultural diversity leads to increased transaction costs both in monetary and efficiency terms [27]. Comu also observed cultural diversity to have a negative impact on initial performance. However, projects with cultural and linguistic diversity achieved better adaptation performance on average [28]. Miller et al. [24] contended that, in the long term, the benefits of cultural diversity can be achieved due to greater creativity, better problem solving ability, and a more comprehensive approach to problem solving. Based on the literature above, the second hypothesis is proposed:

H2: Cross-Cultural Competence has a positive impact on Employee Performance.

C. Global Mindset and Employee Performance

Taylor argued that top managers with a global orientation, are culturally sensitive [29]; welcoming to the challenges of globalization; and are effective in dealing with the complexity of the environment. They proposed that employees would have the confidence and trust in the leader to be capable of leading the organization to success. They also proposed that because of their global mindset, employees would feel more committed to the organizational success. Rockstuhl and Ng stated that trust between members with dissimilar cultures is hard to achieve; however, it is extremely important for the success of a global organization [30]. They reported that culturally intelligent individuals are able to foster trust with other members of the organization when they are from different cultures. Flaherty similarly reported that cultural intelligence had a positive significant relationship with team member acceptance and integration [31]. Culturally intelligent individuals are able to develop high-quality relationships with those who are different...
from themselves. Based on the literature above, the third hypothesis is proposed:

**H3:** Global Mindset has a positive impact on Employee Performance

Based on the above theories and hypothesis development, the conceptual framework on the relationship among variable can be depicted as Figure 1 below.

![Fig. 1. Theoretical framework.](image)

**III. METHODS**

The quantitative approach is selected for this research. According to Silalahi [32], a quantitative approach is a phenomenon by collecting quantitative or numerical data that are analyzed using mathematically based methods such as statistics. The type of this research is causal research, which examines the causal relationship between two or more variables to explain the effect of changes in the variation of values in one or more variables [33].

This study uses primary data sources obtained directly from respondents. According to Maholtra [33] and Babbie [34], primary data is data obtained directly by the original researcher who has a specific purpose and is designed in such a way as to obtain the data desired by the researcher. The primary data of this research are collected through an online survey where respondents answer demographic questions as well as multiple-choice questions with 5-point Likert Scale.

The survey of this research is made up of two sections, in which the first section is demographic questions, and the second section is multiple-choice questions with a 5-point Likert scale. The demographic questions are: gender, age, years of experience on WIKA overseas construction project, and country of the projects located. The multiple-choice questions in the second section use a 5-point Likert scale to measure the perspective of the respondents towards the statements in the survey that represents the variables of this research.

According to Maholtra [33], the process of specifying populations and sampling is important because it aims to determine what criteria will be used as research sample criteria. To select the sampling homogeneity, some criteria are determined. First, the sample should be employees of WIKA. Second, the respondents should have an experience working in WIKA’s overseas construction project.

Furthermore, Babbie [35] suggest that the number of respondents could use maximum likelihood estimation method, the minimum number of samples used must total five times the number of indicator questions used in the study. In this study there were 16 questions, thus it requires at least 80 respondents.

For data analysis, this research apply [35], Structural Equation Modeling (SEM) to analyze the effect model between the selected variables, independent variable and the dependent variable, the SEM_PLS method was chosen in this case study. The analysis of this study include reliability evaluation, data validity evaluation, path coefficient & coefficient of determination test, and also bootstrapping method to investigate t-statistics value, which will be used to test the hypothesis.

**IV. RESULTS AND DISCUSSION**

From 100 respondents of this study, the demographic data of the respondents are shown in Table I, below:

| Profile                                | N  | Percentage |
|----------------------------------------|----|------------|
| Gender                                 |    |            |
| Male                                   | 89 | 89%        |
| Female                                 | 11 | 11%        |
| Age                                    |    |            |
| < 26 years old                         | 23 | 23%        |
| 26 – 35 years old                     | 42 | 42%        |
| ≥ 36 – 45 years old                   | 25 | 25%        |
| ≥ 45 years old                        | 10 | 10%        |
| Years of Experience in Overseas Project |    |            |
| ≤ 1 year                              | 20 | 20%        |
| 1 – 3 years                           | 28 | 28%        |
| 3 – 5 years                           | 29 | 29%        |
| ≥ 5 years                             | 23 | 23%        |

From the Table 1, it can be identified that majority of the respondents are male, and it takes up to 89%. The majority age of the respondents is between 26 – 35 years old in which the percentage are 42%, and the lowest percentage of the respondents age are above 45 years old for only 10%. The length of experience in overseas construction project distributed almost even in between 1 – 5 years of experience, in the number of 57%.

**A. Quantitative Approach Result**

As mentioned previously that reliability and validity test should be evaluated for this study. Permissible loading factor for convergent validity is 0.5. If the loading factor value >0.5 then the convergent validity is fulfilled, if the loading factor value <0.5 then the construct must be excluded from the analysis [35]. The result revealed that all loading factors of each indicator show a number above 0.5 which means it is above the prerequisite loading factor. It can be concluded that the entire data collected meets the convergent validity test criteria.

Criteria related to validity and reliability can also be seen from the reliability value of a construct [35]. The reliability of a construct needs to be tested in a study. Reliability test are the measurement of how consistent the respondents answering the questions in the questionnaire. Within this study, all of the Cronbach’s alpha value results are more than 0.70. The second measurement of reliability are shown in the composite reliability score, which all of the constructs have results above 0.70. The rho A, is the alternative measurement of reliability, also shows results above 0.70. From the three results of the reliability test, it can be concluded that the research instruments are reliable.
Construct validity means that a set of indicators represents one latent variable and which underlies the latent variable. The construct considered as a good construct if the Average Variance Extracted (AVE) value is above 0.5 [35].

As shown in Table 2, all values obtained from each variable are more than 0.50. It means that the model developed in the study are aligned with the construct of the theory being hypothesized.

### Table II. Reliability and Validity Results

| Variable                      | Cronbach's Alpha | Composite Reliability | Ave Var Extracted (AVE) |
|-------------------------------|------------------|-----------------------|-------------------------|
| Global Mindset                | 0.826            | 0.896                 | 0.741                   |
| Cross-Cultural Competence     | 0.850            | 0.900                 | 0.694                   |
| Employee Performance          | 0.853            | 0.901                 | 0.696                   |

Discriminant validity is the extent to which a construct is truly distinct from other construct by empirical standards. Thus, establishing discriminant validity implies that a construct is unique and captures phenomena not represented by other constructs in the model. The cross-loading value of each indicator included in one variable must have a greater value than the value of the cross-loading indicator in the other latent variable. If this condition is fulfilled, it means that each latent variable has good discriminant validity [35].

### Table III. Discriminant Validity Results

| Variable                      | Cross Culture Competence | Global Mindset | Employee Performance |
|-------------------------------|--------------------------|----------------|----------------------|
| CC1                           | 0.865                    | 0.674          | 0.733                |
| CC2                           | 0.809                    | 0.657          | 0.646                |
| CC3                           | 0.893                    | 0.671          | 0.668                |
| CC4                           | 0.688                    | 0.498          | 0.473                |
| GM1 – GHC                     | 0.594                    | 0.863          | 0.631                |
| GM2 – GPC                     | 0.705                    | 0.845          | 0.646                |
| GM3 – GSC                     | 0.649                    | 0.875          | 0.664                |
| EP1                           | 0.618                    | 0.561          | 0.774                |
| EP2                           | 0.622                    | 0.622          | 0.811                |
| EP3                           | 0.625                    | 0.606          | 0.852                |
| EP4                           | 0.688                    | 0.710          | 0.895                |

As shown in Table 3, all indicators in one variable have greater value compared with cross loading indicators in the other latent variable, thus the condition is fulfilled and categorized each latent variable has good discriminant validity.

Evaluation of the inner model uses the parameter R square value (R2) which is used to calculate the level of variation of the transition of independent variables to the dependent variable. Ghozali proposed a rule of thumb for acceptable (R2) with 0.75, 0.50, and 0.25 are described as substantial, moderate and weak respectively [36]. A high R square (R2) value indicates that the proposed prediction model is good [35].

From the data shown in Table IV, Employee Performance produces determination of coefficient value at 65.6% which is considered as moderate. Such value shows that 65.6% of the variation in employee performance can be explained by global mindset and cross culture competence, while the remaining 34.4% can be explained by other variables outside this study. On the variable of global mindset, coefficient of determination produces a value of 57.2% which consider also moderate. Such value shows that 57.2% of the variation in global mindset can be explained by cross culture competence, while the remaining 42.8% of the variation is explained by other variable outside this study.

### Table IV. R Square (R²) Results

| Variable                  | R square (R²) | In Percent (%) | Adjusted (R²) | In Percent (%) |
|---------------------------|---------------|----------------|---------------|----------------|
| Employee Performance      | 0.656         | 65.6%          | 0.649         | 64.9%          |
| Global Mindset            | 0.572         | 57.2%          | 0.568         | 57.2%          |

**B. Hypothesis Result**

Table V below shows the hypothesis results. The path coefficient is used to measure the significance of the constructs in the structural equation model determined by the t-statistic value which is expected to be greater than the t-table value. The path coefficient estimations are evaluated on t-statistics values. For the one-way tail test which is used in this study, the measurement items used can be said to be significant if the t-statistic is above 1.65 at an error margin of 5% (0.05) [37]. The first hypothesis shows the results of the analysis for the value of t-value owned by the cross culture competence to global mindset is 13.070 > 1.65 and the p-value of 0.000 < 0.05. Hence, the first hypothesis is supported.

The second hypothesis shows the results of the analysis for the value of t-value owned by the cross culture competence to employee performance is 5.327 > 1.65 and the p-value of 0.000 < 0.05, it can be said that the variable cross culture competence has a positive and significant impact on employee performance. Accordingly, the second hypothesis is also supported.

The third hypothesis shows the results of the analysis for the value of t-value owned by the global mindset to employee performance is 4.319 > 1.65 and the p-value of 0.000 < 0.05, it can be said that the variable global mindset has a positive and significant impact on employee performance. Hence, Based on the explanation above, the third hypothesis is also supported.

The relationship of global mindset as the mediating variable between cross cultural competence and employee performance can be measured by comparing the direct effect of cross cultural competence on employee performance with the indirect effect from cross culture competence to employee performance through the global mindset variable. Result of the indirect effect shown in the score of 0.304. The score 0.304 are below the score of the direct correlation 0.461. By this comparison, it can be said that the independent variable is stronger on affecting the dependent variable directly, rather than through the mediation variable.
Global mindset has a positive effect on employee performance. Employee performance on WIKA employee who works at overseas construction project is formed when they developed good cross culture competence. The results of this study are in line with the findings of[29], that top managers with a global orientation, who are also culturally sensitive, welcome the challenges of globalization and are effective in dealing with the complexity of the environment. They proposed that because of their global mindset, employees would feel more committed to the organizational success. Rockstuhl and Ng also stated that trust between members with dissimilar cultures is hard to achieve; however, it is extremely important for the success of a global organization. They reported that culturally intelligent individuals are able to foster trust and to trust other members of the organization when they are from different cultures[30]. Flaherty [31] stated that cultural intelligence had a positive significant relationship with team member acceptance and integration. Culturally intelligent individuals are able to develop high-quality relationships with those who are different from themselves. In other words, employees who are able to function effectively across different cultures will have a good global business orientation and are adaptable to the local environment.

In the second hypothesis, it is said that cross cultural competence has a positive effect on employee performance. Employee performance on WIKA employee who works at overseas construction project is formed when they developed good cross culture competence. The results of this study are in line with the findings of Miller et al. [24], that the benefits of cultural diversity can be achieved due to greater creativity, better problem solving ability, and a more comprehensive approach to problem solving.

In the third hypothesis, it is found that global mindset has a positive effect on employee performance. Employee performance on WIKA employee who works at overseas construction project is formed when they developed their global mindset. The results of this study are in line with the findings that global roles may include managing uncertainty and ambiguity [38], leading diverse teams [39], using another language and working with people from other countries and cultures [40], coordinating people and processes in different locations [41], and working across national, organizational, and functional boundaries [42]. In other words, employees who have a good global business orientation and adaptable to the local environment will perform better result in quality and quantity on their duties in accordance with the responsibilities given to them.

V. Conclusion

This study has achieved its objectives. Firstly, in the context of WIKA’s overseas construction project, this study finds that cross cultural competence does have a positive and significant effect on global mindset. From this it can be deduced that WIKA employees working in overseas construction projects are more likely to have global mindset if they have a sense of cross cultural competence. Secondly, the study illuminates that cross cultural competence does have a positive effect on employee performance of WIKA employees in overseas construction project, and it was also found that the effect is significant. Thirdly, the study indicates that global mindset does have a positive effect on employee performance in the context of WIKA employees in overseas construction project, and it was also found that the effect is significant. Thus, it can be deduced that WIKA employees in overseas construction project who have global mindset are more likely to perform better in executing the construction projects. Finally, the study also finds direct effect and indirect effect between variables, it is found that cross cultural competence is stronger on affecting employee performance directly, rather than indirectly through global mindset.

Theoretically, the findings of this research expand previous research on cross cultural competence, global mindset and employee performance by providing empirical evidence on construction industry. Practically, the results of the study can be applied by construction companies to go international.

This research has limitations. Firstly, it only covers employees of one company. Secondly, it does not cover reverse effect of global mindset on cross cultural competence. Therefore, further studies can be done to enlarge the scope of the study and to test the reverse effect of the global mindset and cross cultural competence on employee performance.

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