CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

Public-Private Partnership (PPP) projects performed in Indonesia or in other countries have not yet conducted ex-post evaluation in terms of what has been delivered, mainly due to insufficient understanding of the framework of the evaluation process and the factors to be evaluated. Thus, this empirical study surveyed data for Indonesia to explore these aspects and factors. The data were analyzed using descriptive statistics, exploratory factor analysis (EFA), and two-dimension analysis to categorize and prioritize the aspects in evaluation process and also the factors to be evaluated in ex-post phase of PPP infrastructure projects.

Specifically, the descriptive statistics in the ex-post evaluation showed that the three most important aspects of the evaluation process were “review and acceptance of evaluation by appropriate parties”, “documentation of information used in preparing the evaluation”, and “purpose and intended use of evaluation” (mean values 4.18, 4.11 and 3.97, respectively). For the ex-post evaluation factor, the results revealed 24 factors in Indonesian PPP ex-post evaluation. Exploratory factor analysis was used to cluster the 24 factors to the following seven groups based on their importance: “risk”, “economic and operational performance”, “sustainability of O&M aspects”, “society and financial profitability”, “project cost and time management”, “environment”, and “policy”. For these factor groups, total variance explained was 79.170%, and the lowest eigenvalue was 2.084.

Two-dimension quadrant analysis was used to prioritize the factors based on level of agreement (MVA) and explanatory ability to the factor group (EFA). There are six factors (DIV2_FAC06, DIV2_FAC12, DIV2_FAC13, DIV02_FAC17, DIV2_FAC18, DIV2_FAC24,) in quadrant I that had high priority. In contrast, there are five factors (DIV2_FAC05, DIV2_FAC08, DIV2_FAC11, DIV2_FAC16, and DIV2_FAC26) in quadrant III that had low priority. The remaining factors are distributed as follow. Six factors (DIV2_FAC01, DIV2_FAC07, DIV2_FAC20, DIV2_FAC25, DIV2_FAC29, DIV2_FAC30) are in quadrant II (high agreement and low explanatory ability) and seven factors (DIV2_FAC02, DIV2_FAC10, DIV2_FAC21, DIV2_FAC22, DIV2_FAC23,
DIV2_FAC27, DIV2_FAC28) are in quadrant IV (low agreement and high explanatory ability), respectively.

Finally, the factor groups were further explained in three categories: “institutional framework”, “sustainable development: economy, society and environment” and “management of projects’ resources, time and cost”. Regarding the factors in Indonesia PPP ex-post evaluation, project managers can decide and arrange key points based on the develop evaluation framework. The sustainable framework reduces the time, cost, and resources required for the evaluation. Moreover, the evaluation still provides valuable information for further improvement in future projects.

6.2 Future works and recommendations

This study has several limitations that can be addressed in future works. First, the data used to develop the survey instrument were gathered in Java, which is the site of most PPP development in Indonesia. It is also difficult to find the respondents that have good knowledge both ex-post evaluation and PPP in Indonesia. Thus, further studies are needed by focusing on experts in both ex-post evaluation and PPP, and in other parts of Indonesia or another country so that a cross comparison can be performed.

Secondly, further studies are needed to focus on specific types of PPP or infrastructure projects. Thirdly, future studies can compare ex-post evaluations among different PPP sectors. Another suggestion for further studies is to consider additional factors in the ex-post evaluation of PPP. Fourthly, this study did not investigate the causal relationships amongst the factors. Hence, a path model is needed to establish and analyze the causal relationship amongst factors in the ex-post evaluation of PPP projects. Lastly, further study can investigate the measurements tools and application of the offered framework proposed in this study.