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Project Management Performance in ICT and Construction Project: The Influence of Project Management Staff

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Abstract
One of the factors that can influence the project management performance of construction project is the project management staff. Recognition of the role of project management related processes can positively increase capability of Project Management Staff. Therefore, this study attempted to examine the relationship of project management staff on project management performance of the ICT and construction companies. The respondent for this study was 156 project managers from ICT companies and 346 project managers from construction companies in Klang Valley, Malaysia. One dimension namely project management staff from PMPA model developed by Qureshi et al. (2009) served as the conceptual framework. The findings indicated that project management staff has moderate correlation on project management performance. It was found that project management staff received the correlation value of 0.475 with project management performance.

Keywords
Project Management Performance, PMPA Model, Project Management, PM Staff.

1. Introduction

Organizations have invested millions of ringgit in projects such as new product development and upgrading the infrastructures. Information, Communication and Technology (ICT) and construction projects are examples of the projects that are important for the growth of country's economy. Munns and Bjeirmi (1996) stated that the factors of success in project management include commitment to complete the project, appointment of a skilled project manager, adequate definition of the project, correctly planning the activities in the project, adequate information flow, accommodation of frequent changes, rewarding employees and being open to innovations.

Previous research proven that many of the projects which has failed is because the project do not meet time and budget goals, or fail to satisfy customer and company expectation (Humaidi et al., 2010). Some of the factors that also contribute to the project's failure are such as weaknesses in project mission and planning, lack of project knowledge, communications breakdown, lack of resources, political issues, control issues, lack of top management support and lack of technical expertise (Sauser & Eigbe, 2009). In addition, IS researchers and practitioners indicated that insufficient IS personal knowledge resources is a primary reason for the failure of ICT projects (Byrd & Turner, 2001).

At the moment, project management has become a key activity in most modern organization (Belout & Gaureau, 2004). To ensure the success of a project, every organization needs to adopt good project management practices. Qureshi et al. (2009) viewed project performance as an intangible thing, especially in case of management performance, so choosing tools for assessing the performance is also a hard job.

Performance measurements is the heart of ceaseless improvement and the aims of project management performance is offering managers and members of staff of all ranks the ability to develop direction, traction, and speed of their organization. Adopting good approach in managing project can improve project managers' effectiveness and efficiency of products and processes. As project management is becoming an important task to an organization, it is worthwhile to explore the factors that can enhance project management competencies.

Therefore, this study was conducted with the aim to determine the relationship between project management staff (PM Staff) and project management performance in ICT and construction companies in Klang Valley, Malaysia.

2. Background of hyphothesis

To develop conceptual framework, several studies regarding PM Staff and factors influencing the project management performance (PMP) have been reviewed. Based on the finding, researchers have decided to adapt PMPA Model but focusing on PM Staff as an independent variable in this study. Meanwhile, project management performance is the dependent variable.

2.1. Project Management Staff

In the PMPA model, the criterion of "staff" becomes "PM Staff". The PMPA Model focuses specifically on the planning, management and rewards relating to "PM Staff". Bryde (2003) indicated that the planning and managing of PM Staff can be viewed from two perspectives. First, from the perspective of the individual, current project, which has a relatively short-term, narrow view. The second perspective focuses on how the organization plans and manages its PM Staff, including using training and career development, increasing its PM capabilities, not only for the management of a current project but also for the management of future projects. Developing capability, through the use of methods for developing staff is a key to maximising the potential of project-related human resources (Riss & Neergard, 1994). The PMPA model focuses on the extent to which the management of PM Staff incorporates methods for rewarding performance in project management.

Bryde (2003) summarized the different characteristics of PMP against PM Staff as: (1) level of recognition of the role of project management related processes in increasing capability of PM Staff; and (2) existence and operation of processes for developing and evaluating PM Staff.

Qureshi et al. (2009) further explained that PM Staff is about (1) planning in project management for the staff of project; (2) managing human resource; and (3) providing reward and recognition; especially how organizations plan and manage its PM Staff.

2.2. Project Management Performance

Research done by Qureshi et al. (2009) had examined the level of impact on project management factors over the project management performance in Pakistani listed organization using Project Management Performance Assessment (PMPA) model. According to Qureshi et al. (2009), PMPA model have a potential use as framework to assess the project management performance. Results of the study have shown that the deployment of project management performance assessment (PMPA) model has positive

and significant impact over project management performance. All the factors in PMPA model have strong positive correlation with project management performance. The factors in PMPA include leadership, staff, policy and strategy, partnership and resources, project life cycle (PLC) and key performance indicator (KPI).

In addition, research done by Humaidi et al. (2010) indicates that all the variables proposed in PMPA model have positive significant relationship with project management performance. Humaidi et al. (2010) in their research found that the strongest impact to project management performance is PM Leadership; then followed by PM Staff, PM KPIs, PM Project Life Cycle, PM Partnership and resources; and PM Policy and Strategy

3. Conceptual Framework

In the process of developing a conceptual framework for determining the relationship between PMPA dimensions and PMP which is adapted by Qureshi et al. (2009), this study posits one dimension that is Project Management Staff. The conceptual framework served as a parameter to the variables involved in the study as follow:

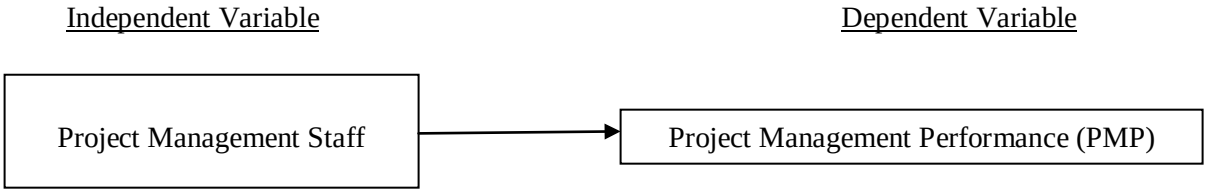

Figure 1: Conceptual Framework on Project Management Performance in ICT and Construction Project: The influence of Project Management Staff

The independent variable was one dimension of PMPA Model adapted by Qureshi et al. (2009), namely, Project Management Staff. This study was to find out whether there exists relationship among PM Staff on PMP. PMP was treated as the dependent variable of the study.

3.1 Hypothesis

Qureshi et al. (2009) study found a significant relationship between PM Staff and project management performance. Following his model, the researchers proposed the following hypothesis:

H_1 There is a significant relationship between Project Management Staff and Project management Performance.

4. Methodology

4.1 Contexts and Participants

The participants of this study were 156 project managers from ICT companies and 346 project managers from construction companies in Klang Valley, Malaysia. A total of 550 questionnaires were distributed through postage and email. However, only 502 questionnaires were obtained and valid. This is equivalent to 83.7% of the response rate and according to Babbie (1992), if the response rate is 70% and above, it is very good. The respondents were asked to describe themselves in reference to a 5-point Likert-type scale with the value of: 1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree.

4.2 Instruments

A questionnaire was developed for examining the relationship between PMPA dimension (PM Staff) and PMP. In doing so, 17 items of questionnaire was developed and adapted from previous research with response options ranging from 1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree and 4 items for demographic details. The questionnaire was based on the questionnaire developed by Qureshi et al. (2009). However, the questionnaire was slightly been modified based on the suitability and necessity of the study.

The instruments used in this study were tested for validity and reliability to ensure a high-quality measure.

Cronbach Alpha was used for the purpose of reliability measurement. Cronbach Alpha coefficients of all the variables were well over 0.70 which indicated that the internal reliability of the individual constructs was quite high. The internal reliability of overall model was also found to be 0.90 which an excellent result. This value indicated that the questionnaire was suitable for the purpose of study as value of 0.9 is considered as excellent (Sekaran, 2007). Table 4.1 is the summary of development of instrument used in this study.

The study used both descriptive and inferential statistics. The descriptive statistic included mean, frequency, standard deviation, variance, range, min and max. The presentation of the descriptive statistics is in the form of tables. Statistical tool used was SPSS version 17.0 and the data have been analyzed using The Pearson Moment Correlation Coefficient and multiple regression.

Table 4.1: Development of Instruments

Section of Questionnaire	Scale	Author
Section A		
Demographic background	Nominal and Ordinal 4 items	
Section B		
PMP	Interval (5-point Likert's Scale) 8 items	Qureshi et al. (2009)
Section C		
PM Staff	Interval (5-point Likert's Scale) 9 items	Qureshi et al. (2009)
Total	21 items	

5. Findings

The Pearson Moment Correlation Coefficient was used for conducting relationship test of the structural model. Mean score for PM Staff is (3.96), whereas standard deviation is (0.54). Table 4.2 shows the descriptive statistics, mean and standard deviation of this study. Hypotheses 1 proposed that PM Staff (r = 0.475) was moderately influencing the project management performance. Consistent with much of the prior research, PM Staff had significant effect on PMP with moderate relationship based on the analysis result as shows in table 4.3. Thus, hypotheses 1 was supported as indicated in figure 2.

Table 4.2: Descriptive statistics, mean and standard deviation

Variable	Mean	SD	Variance	Range	Min	Max	Count
PMP	4.23	0.55	.299	7.88	1.38	9.25	502
PM Staff	3.96	0.54	.286	6.67	1.78	8.44	502

Table 4.3: Correlation

		PMP
PM Staff	Pearson Correlation	.475**
	Sig. (2-tailed)	.000
	N	502

Regression analysis also reveals that factor of PM Staff was significant with the value of (t=2.202, p-value<0.05) as stated in table 4.4 below. Thus, hypothesis 1 was accepted.

Table 4.4: Hypothesis Results

Hypothesis	Result			
	Beta	t	Sig.	Result
H1	.119	2.202	.028	Accept

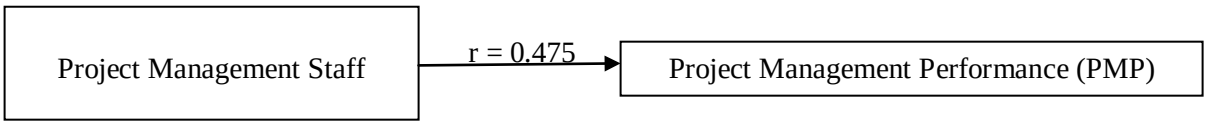

Figure 2: Result of analysis

6. Discussion

Cronbach alpha value which was used to measure the reliability was found to be highly satisfactory. The hypothesis set in the study that there is a relationship between PM Staff and Project Management Performance is therefore verified by the findings.

The correlation value between PM Staff and PMP is 0.475. Most of the respondents agree that KPIs give an impact to PMP (mean = 3.96). According to Guilford (1956), the correlation value between 0.40 to 0.70 shows there is a moderate correlation; substantial relationship between the items. Thus, this study shows that PM Staff has moderate relationship with PMP.

Result analysis done by Qureshi et al. (2009) also reveals that PM Staff has an impact on project management performance (r = 0.55) with mean score of 4.12. Therefore, the results of this study confirm the findings of Qureshi et al. (2009) model.

7. Conclusion

The relationship between PM Staff and Project Management Performance was investigated in this study. According to Qureshi et al. (2009), PM Staff is about planning in project management for the staff of project, managing human resource and providing reward and recognition; especially how organizations

plan and manage its PM Staff. It was hypothesized that there is a significant relationship between PM Staff and PMP. In order to test this hypothesis, a questionnaire was administered to 502 project managers from ICT and construction companies in Klang Valley, Malaysia. One dimension of PMPA model developed by Qureshi et al. (2009) was used to measure the items in this study. Cronbach alpha of all variables were well over the 0.70 min set by Nunally (1978), which indicated that the internal reliability of the individual constructs was quite high. The internal reliability of the overall model was also found to be 0.90 which is an excellent result. The correlation value between PM Staff and PMP is 0.475 which show that there exist significant relationship between the items studied. In addition, regression analysis also reveals that factor of PM Staff was significant with the value of ($t=2.202$, $p\text{-value}<0.05$). Organization should conduct a lot of training to enhance the project managers' skills. Project managers are often not trained enough to be able to take the responsibility of making decisions.

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