



UNIVERSITI
TEKNOLOGI
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(MAB 2404) MASTER'S CAPSTONE PROJECT
MASTER OF PROJECT MANAGEMENT (MAZ07)

EFFECTIVENESS OF CURRENT PMO IMPLEMENTATION IN PWD

PREPARED BY: AZARUL AZLAN BIN MOHD RADHI
(MA111251)

SUPERVISOR: PROF. DR. MUHD ZAIMI B. ABD. MAJID

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PRESENTATION OUTLINE

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- The objectives of this study is to investigate issues related to performance of PMO and to established the improvement method/process of PMO in PWD.
- Method of this study is done by doing a questionnaire survey among the PWD staff and data taken will be analysing by using SPSS software. There will be primary and secondary data collection to be done. After that an analysis with method of frequency, relative importance index, reliability, normality and Spearman & Kendall's correlation analysis will use.
- From the analysis of questionnaire survey among 120 JKR staffs, the top issue that led to the poor performance of PMO were (1) weakness of allocation for resources across multiple projects. Classify projects using methodologies Acquisition Categorization (ACAT) for projects, (2) contractor performance, (3) project management skill level, (4) pressure related to social responsibilities, ethics and others, (5) monitor and control project performance, including the development of Project Information Systems and reporting function.
- (1) Learned from others failure (Lesson Learned), (2) training, certification, consulting, mentoring, and competence development for the managers, (3) create an expert on subject matter, (4) provides project management consulting periodically as required are the most ranked for improvement method/process to PMO.

INTRODUCTION

- PMO has been established due to low achievement for project performance in 9th Malaysia Plan (refer Table 1.1).

Table 1.1: Ninth Malaysia Plan Project under PWD

Total 9th MP Project	6,126	100.00%
Planned Completed	4,808	78.49%
Actual Completed	4,688	76.53%
Project Cancelled	207	3.38%
Project Continued to 10th MP	1,231	20.09%

Source: PWD Jan. 2014

- Normally, the poor performance of PWD will cause dissatisfaction to all parties involved and the main role of PMO is to ensure that the projects are completed and delivered to the customer within the budgeted cost, time and meet client's objectives.
- Not only to deliver project, PMO also have to planned, provide tools and give a continuous knowledge/education to make sure all staff's are competent and always in high performance and high capability to run the project.

PROBLEM STATEMENT

- After two and half years of the establishment of the Project Management Office (PMO) since end of 2010, they still facing project failure in Public Work Department (PWD) even in state and federal level. Although there is a programme that has been established by the Project Management Office (PMO) to the staff, the vision and mission of Project Management Office (PMO) still not achieve.

Table 1.2: Project Delivery Performance

Years	2011	2012	2013
Total Project Nos.	380	655	630
Pre-Construction	38	251	285
Under Construction	342	404	345
Project Delivery (%)	97%	90%	92%

PROBLEM STATEMENT

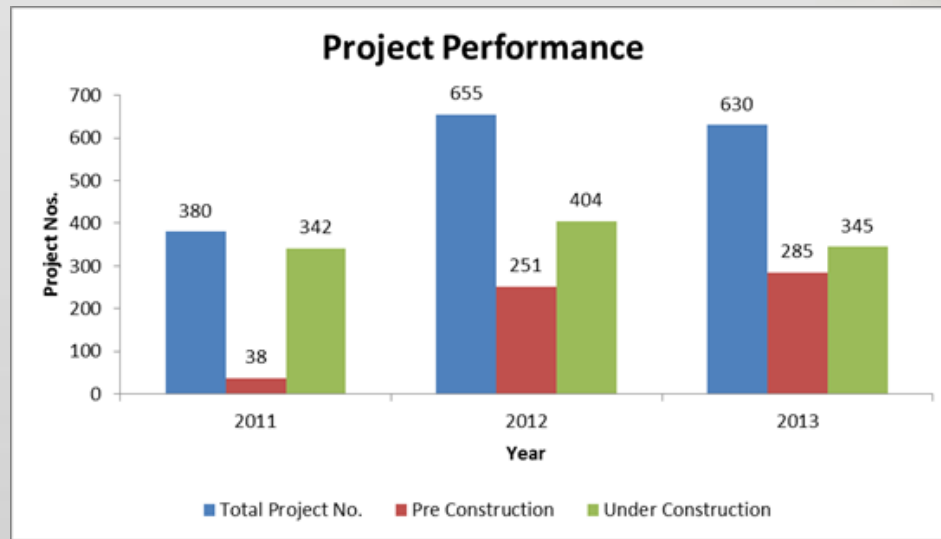


Figure 1.6: Summary of Project Performance

Source: PWD

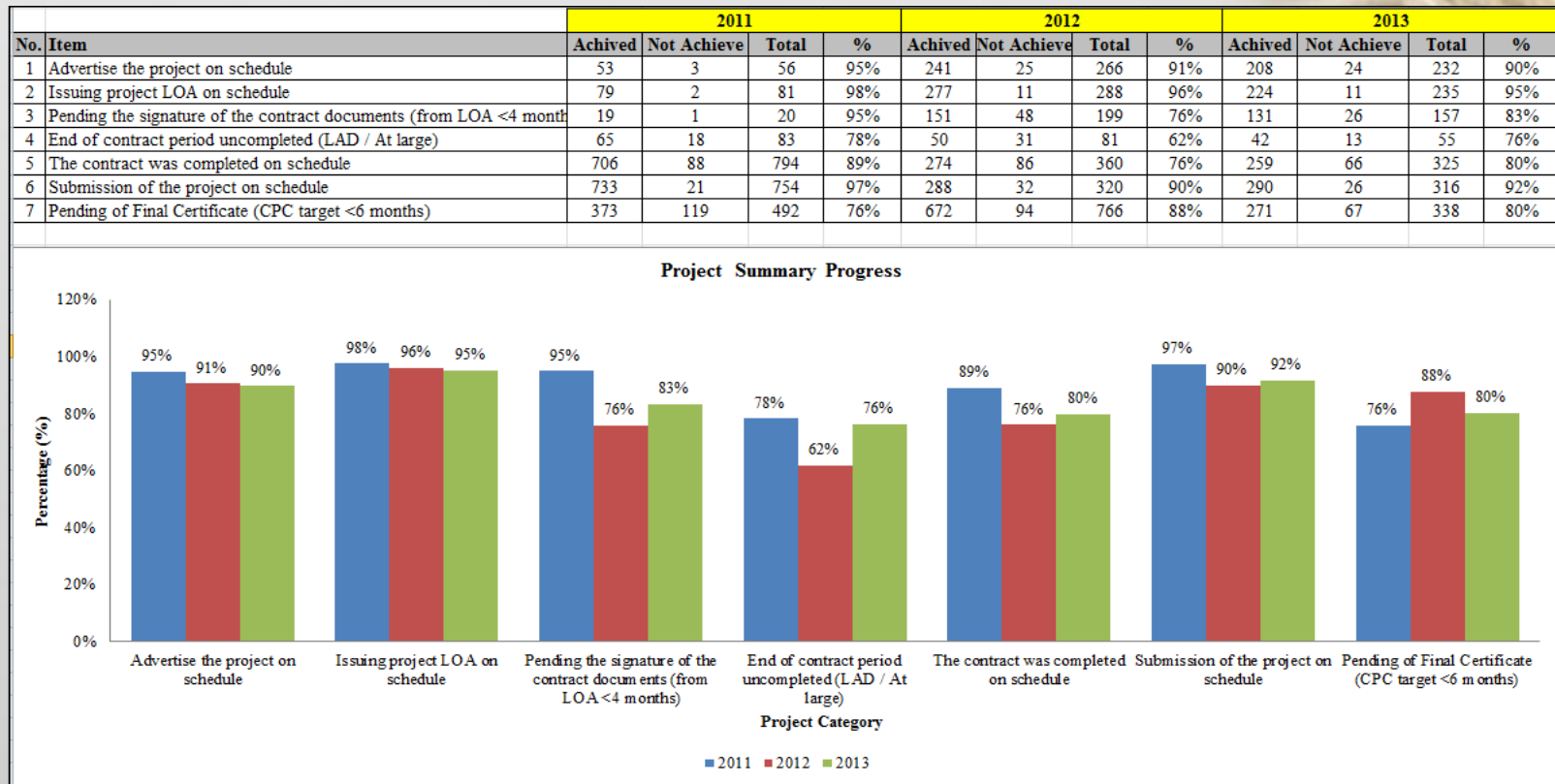


Figure 1.7: Project Summary Progress

AIM & OBJECTIVES

The aim of this study is to determine effectiveness of current Project Management Office (PMO) since its implementation for three (3) years in Public Work Department (PWD). If the effectiveness is still low, then what improvements can be made to achieve department mission and vision. In order to achieve the aim, the objectives of this study are outlined as follows;

- To investigate issues related to performance of PMO; and
- To identify and establish the improvement method/process of PMO in PWD.

SCOPE OF THE STUDY

- The scope of the study involved professional in various unit in PWD includes from headquarters (portfolio office), PWD branches (programme office) and PWD States (project office). Each of the above sections will be involved and how they implementing their knowledge on project management will be determine. The issues that contributing to the project failure will be evaluated.
- This study will be focussed on the current Project Management Office implementation since end of 2010 whether it has been achieved the vision and mission in order to make Public Work Department (PWD) is a well-known technical department in Malaysia.
- This study is just to evaluate performance after the establishment of Project Management Office (PMO) to see whether the Project Management Office is functioning to the Public Work Department (PWD) or not.
- Data will be collected by doing a descriptive survey and distributing questionnaires to the respective office in order to collect a data directly or indirectly from the Public Work Department staff.

LITERATURE REVIEW

PMO can be defining as an entity in the organizational body that has been assigned to a various responsibilities in order to centralised and coordinated management of any projects. It can be range from providing project management advisory to being responsible direct to the project that has been assigned to the team (PMI, 2008, p.11). From the previous study, it has been identified that a range of activities which is undertaken by the PMOs have not been examined by the researcher on the impact of PMO in the project management success and management satisfaction (Desouza and Evaristo, 2006; Hobbs and Aubry, 2007). There is a survey done by Hobbs and Aubry (2007) finds that the number of new PMOs is growing while the existing PMOs are also shutting down (Aubry et al., 2010a, b). Aubry et al. also find that the external influence such as politics also give an impact to the dissatisfaction with the performance and effectiveness of the PMO.

LITERATURE REVIEW

Activities of PMOs

It has been identified that any activities done by the PMOs was focussing on activities that energising the project in the previous study (Desouza and Evaristo, 2006; Hobbs and Aubry, 2007; Pemsel and Wiewiora, 2013). The activity has been identified and has been adopted in JKR by the Table 2 below:

Level of influence	Activity
Strategic (Portfolio Office)	<ul style="list-style-type: none"> - To ensure the projects are aligned with the client objectives and contribute to the strategic growth of the organisation. - The efficient and effective knowledge of management for improving the policies, practices and methodology of project management in the organisation.
Tactical (Program Office)	<ul style="list-style-type: none"> - To ensure close integration between and within the ongoing projects. - To ensure the quality consistency and services in each projects. - Lesson learned and knowledge sharing across ongoing projects.
Operational (Project Office)	<ul style="list-style-type: none"> - To provide regular status reports to the top management and coordinating the projects. - To ensure that information is available to make a project decisions. - To be a central source of information of the project. - Conducting routine project evaluations.

Effectiveness of PMOs

PMOs has been established to improve project performance and to reduce project failure. A multi-dimensional competing value of framework has been suggested by Aubry and Hobbs (2011) to evaluate the performance of the PMO. But Desouza and Evaristo (2006) suggested that PMO performance can be measured by the project efficiency. It is found that programme management did not lead to improve project outcomes when standard methodologies in the organization has been introduces O'Leary and Williams (2008).

Issues of Implementing PMO

Singh et al. (2009) present the top challenges and some series of action that can be taken to consideration before and while implementing a PMO;

- 1) Failure to manage the organizational resistance to change and rigid corporate structure.
- 2) Project managers with lack of experienced and PMO leadership.
- 3) Lack of appropriate change management strategy.

Issues Related to PMO

There is a reason why PMO not perform well in the organizations. It is possibly because they don't have good strategy in place. With refer to Stanleigh (2006), there are four (4) key factors that will immediately make a difference for PMO specifically and organization generally. They are:

- 1) Ensure that all strategically aligned by:
- 2) Create a culture that supports a project management environment.
- 3) Implement strategic project management best practices.
- 4) Create a strategic project measurement system.

LITERATURE REVIEW

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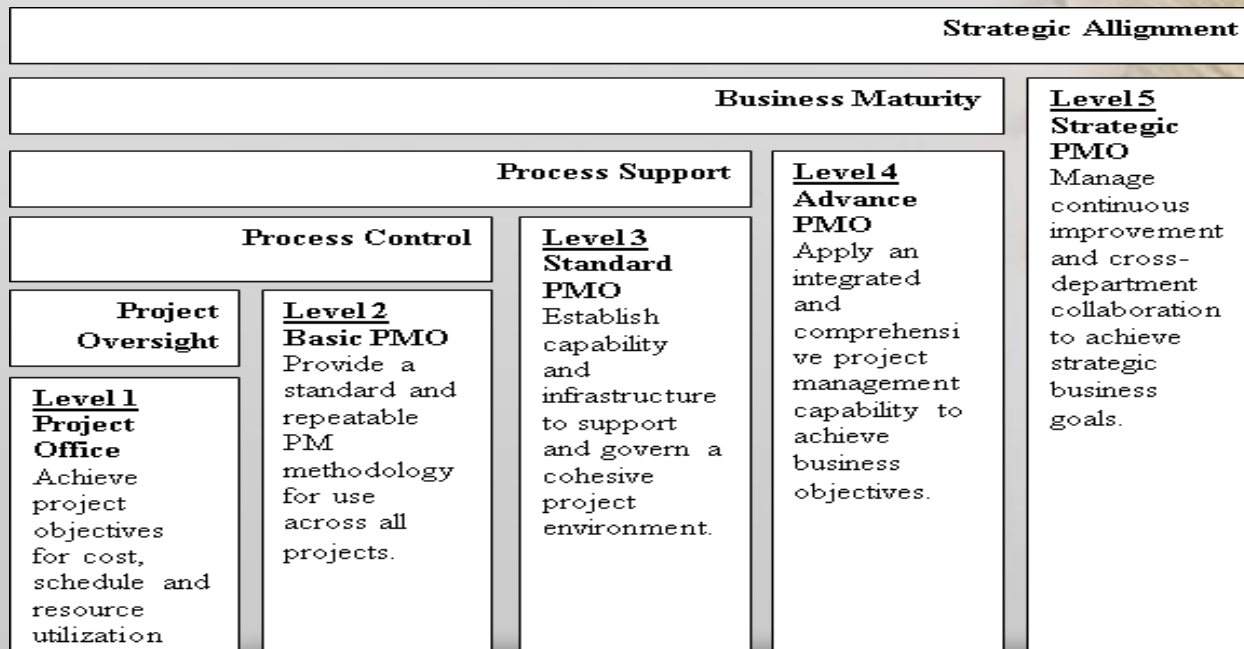
Table 2.1: Activities Commonly Undertaken by PMOs

Level of influence	Activity
Strategic (Portfolio Office)	<ul style="list-style-type: none"> - To ensure the projects are aligned with the client objectives and contribute to the strategic growth of the organisation. - The efficient and effective knowledge of management for improving the policies, practices and methodology of project management in the organisation.
Tactical (Program Office)	<ul style="list-style-type: none"> - To ensure close integration between and within the ongoing projects. - To ensure the quality consistency and services in each projects. - Lesson learned and knowledge sharing across on-going projects.
Operational (Project Office)	<ul style="list-style-type: none"> - To provide regular status reports to the top management and coordinating the projects. - To ensure that information is available to make a project decisions. - To be a central source of information of the project. - Conducting routine project evaluations.

LITERATURE REVIEW

Improvement of PMOs Capability

PMOs are not created equally within the organisations. “Although almost any forms of PMO will jumpstart incremental process improvement in organisation that has nothing in place, PMOs are inceptioned at different levels and with different capabilities” (Crawford 2002, p. 67). The evolutionary continuum has been conceptualised in the same way as the project management maturity model (OPM3) (PMI 2004). Therefore, PMOs can be described in a few levels shown at Figure 2.



RESEARCH METHODOLOGY

- The framework of study for this study called research methodology is to guide the researcher on how to conduct the study. The process of the study is known as data collection, analysing, interpretation and observation. The research will be carried out in three phases to execute the different tasks as shown in Figure 1.8 below. Phase 1 is the determination of objectives and scope of the study and literature review. Phase 2 involves the studies of current Project Management Office (PMO), designing and conducting questionnaires and also data analysis. Then Phase 3 is the findings of the data analysis and recommendations (refer Figure 1.8).
- The data collection for this study was obtained through questionnaires and literature review. The design of questionnaire was based on the objectives identified earlier in this study. The question survey was carried out in order to obtain response data from the respondent as much as researcher can. The respondent data will be analysed by using statistical analysis such as frequency, relative importance index, reliability, normality and Spearman & Kendall's correlation analysis to derive the findings and conclusion for this study.

RESEARCH METHODOLOGY

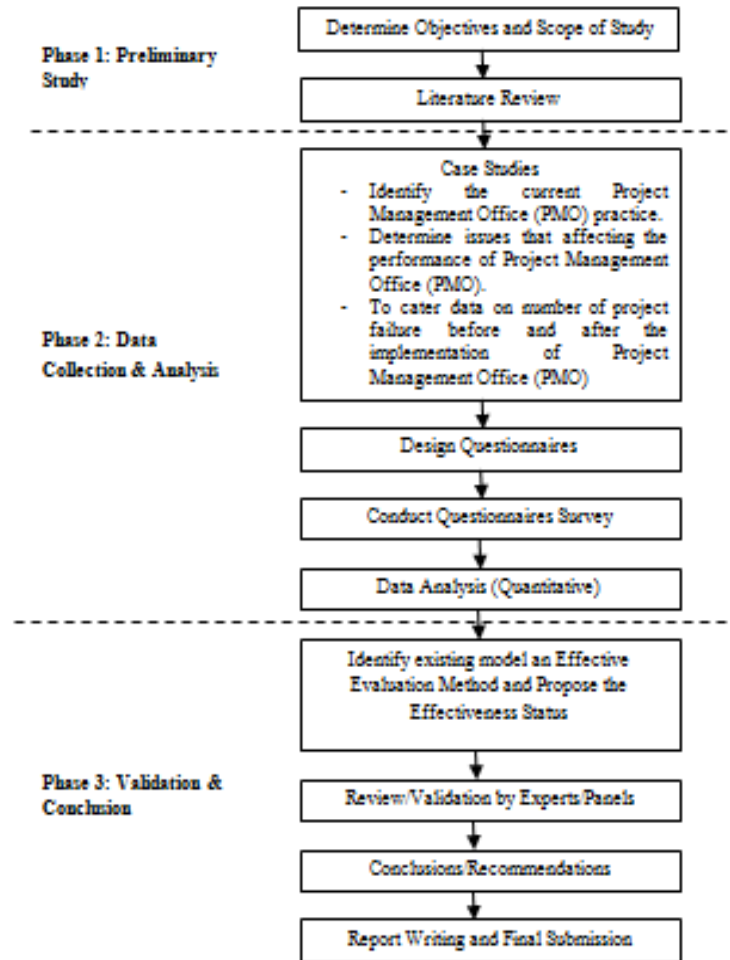


Figure 1.8: Research Methodology

Demographic characteristic of the respondents (120 PWD's staffs) are given in the Table 3

Table 3

DEMOGRAPHIC CHARACTERISTIC	FREQUENCY	PERCENT (%)
Gender		
Male	87	72.5
Female	33	27.5
Age		
≤ 30 years	6	5.0
31 – 40 years	73	60.8
41 – 50 years	33	27.5
≥ 51 years	8	6.7

Demographic characteristic of the respondents (120 PWD's staffs) are given in the Table 3

DEMOGRAPHIC CHARACTERISTIC	FREQUENCY	PERCENT (%)
Years of service		
≤ 10 years	24	20.0
11 – 20 years	55	45.8
21 – 30 years	37	30.8
≥ 31 years	4	3.3
Years of experience		
≤ 10 years	13	10.8
11 – 20 years	64	53.3
21 – 30 years	37	30.8
≥ 31 years	6	5.0

Demographic characteristic of the respondents (120 PWD's staffs) are given in the Table 3

DEMOGRAPHIC CHARACTERISTIC	FREQUENCY	PERCENT (%)
Department		
PMO	9	7.5
HODT	35	29.2
HOPT	47	39.2
State	17	14.2
District	7	5.8
Project site	4	3.3
KADER	1	0.8

Demographic characteristic of the respondents (120 PWD's staffs) are given in the Table 3

DEMOGRAPHIC CHARACTERISTIC	FREQUENCY	PERCENT (%)
Profession		
Engineer	115	95.8
Architect	4	3.3
Quantity surveyor	1	0.8
Management/Administrator	0	0.0
Land surveyor	0	0.0
Others	0	0.0

Table 4.8: Relative Importance Index (RII) for the Issues of PMO (Section B)

Issues	RII
Project alignment with poor strategy	0.61
Availability of relevant information to decision makers not sufficient and accurate	0.57
No standardization of project management tools	0.55
Weakness of allocation for resources across multiple projects. Classify projects using methodologies Acquisition Categorization (ACAT) for projects	0.68
Low project management maturity	0.61
Project selection not thoroughly	0.54
Not fit between project management methods and project characteristics	0.58
Consultant performance	0.66
Contractor performance	0.70
Staff performance	0.59
Project management skill level	0.67
Work climate	0.60
Work family equilibrium	0.57
Change in industry or market	0.58
Change in global or local economy	0.57
Change in regulatory environment	0.58

Change in the national and local political environment	0.59
Pressure related to social responsibilities, ethics and others	0.61
Monitor and control project performance, including the development of Project Information Systems and reporting function	0.65
Develop and implement standards, including methodologies, processes and tools	0.62
Develop the competency of project personnel, including training and mentoring	0.64
Multi-project management, including participation in strategic planning and benefits management	0.62
Organizational learning, including the management of lesson learned, audits and mentoring of PMO performance	0.64
Management of customer interfaces	0.62
Execute specialized tasks for project managers, e.g. preparation of schedules	0.63

Table 4.9: Relative Importance Index (RII) for the Improvement of PMO (Section C)

Improvement	RII
Learned from others failure (Lesson Learned)	0.68
Create an expert on subject matters	0.67
Reviewing all the documentations to suite current conditions	0.62
Looking project as a lifecycle system	0.63
Centralized administration to improved communication among the branches	0.61
Conducting project audits	0.64
Promote project culture among the staffs	0.63
Provide a set of tools and templates for project management	0.66
Training, certification, consulting, mentoring, and competence development for the managers	0.68
Manage a risk database	0.63
Manage archives of project documentation	0.62
Provides project management consulting periodically as required	0.67
Develops, documents, and maintains project management best practices	0.65
Performs project reviews	0.63

Table 4: Ranking of Issue related to project management process. (TOP 5)

Issues that led to poor performance of PMO	RII	MEAN	RANK
Weakness of allocation for resources across multiple projects. Classify projects using methodologies Acquisition Categorization (ACAT) for projects	0.68	4.37	1
Low project management maturity	0.61	3.88	2
Project alignment with poor strategy	0.61	3.87	3
Not fit between project management methods and project characteristics	0.58	3.59	4
Availability of relevant information to decision makers not sufficient and accurate	0.57	3.58	5

- Weakness of allocation for resources is the most selected issue that will led to the poor performance of PMO. Especially at Project Management Office.
- Low project management maturity knowledge/understanding will give an impact to the project performance due to weaknesses of understanding of client needs.

Table 5: Ranking of Issue related to performance (TOP 3)

Issues that led to poor performance of PMO	RII	MEAN	RANK
Contractor performance	0.70	4.50	1
Consultant performance	0.66	4.26	2
Staff performance	0.59	3.80	3

- Poor performance of contractor will give direct impact to JKR generally and PMO especially because the nature of work for JKR today's is as project manager.
- Credibility and professionalism of consultant will give directly impact to the project because weaknesses in design will directly give an effect to the project time, cost and quality.

DATA ANALYSIS AND FINDINGS

Table 6: Ranking of Issue Related to Human Resource (TOP 3)

Issues that led to poor performance of PMO	RII	MEAN	RANK
Project management skill level	0.67	4.31	1
Work climate	0.60	3.83	2
Work family equilibrium	0.57	3.41	3

- Knowledge and skill in project management is the most important criteria for the PMO to lead a project or the organization.
- Work climate will indirectly give an impact to the staff to give a happiness mood in working climate or mood.

Table 7: Ranking of Issue Related to External Issue (TOP 5)

Issues that led to poor performance of PMO	RII	MEAN	RANK
Pressure related to social responsibilities, ethics and others	0.61	3.88	1
Change in the national and local political environment	0.59	3.61	2
Change in regulatory environment	0.58	3.56	3
Change in industry or market	0.58	3.54	4
Change in global or local economy	0.57	3.42	5

- Lot of pressure will give an impact to the staff emotional and will increase to the working stress of the staff.
- Change in political environment will interfere the normal work flow.

Table 8: Ranking of Issue Related to Internal issue (TOP 5)

Issues that led to poor performance of PMO	RII	MEAN	RANK
Monitor and control project performance, including the development of Project Information Systems and reporting function	0.65	4.24	1
Develop the competency of project personnel, including training and mentoring	0.64	4.15	2
Organizational learning, including the management of lesson learned, audits and mentoring of PMO performance	0.64	4.13	3
Execute specialized tasks for project managers, e.g. preparation of schedules	0.63	4.13	4
Develop and implement standards, including methodologies, processes and tools	0.62	4.05	5

- Monitor and control project performance is the most weaknesses of PMO although there is lot of tools were developed.
- Low participation in competency, training and mentoring module is why the performance of JKR was not improved.

Table 9: Ranking of Issue Improvement Method/Process to PMO (TOP 5)

To established the improvement method/process to PMO	RII	MEAN	RANK
Learned from others failure (Lesson Learned)	0.68	4.40	1
Provide a set of tools and templates for project management	0.68	4.40	2
Training, certification, consulting, mentoring, and competence development for the managers	0.68	4.40	3
Provides project management consulting periodically as required	0.67	4.34	4
Create an expert on subject matter	0.67	4.33	5

- Lesson learned from the other project is the most good actual lesson.
- PMO should provide a set of tools and templates for project management for all PMO units.

DISCUSSION FOCUS GROUP – SECTION B

CAUSES	DISCUSSION FOCUS GROUP's COMMENT
Project Management Process	PMO should be lead in the department and should some tool to collocation among the staff to update all the project
	Work program has to be resource loaded includes timelines from local authorities and suppliers. Manage the work program to achieve client's targets.
	PMO need to understand the project cycle and didn't look over all from initial stage begin until disposal of cycle life.
	To trim the role of PMO

DISCUSSION FOCUS GROUP – SECTION B

CAUSES	DISCUSSION FOCUS GROUP's COMMENT
Performance	The leadership of PMO at all level (portfolio, program and project) should be reviewed. Only those having high competency, good attitude & values, high leadership quality, highly strategic and have gut to execute the plan should lead PMO.
	Select Project Management skill of contractor.

DISCUSSION FOCUS GROUP – SECTION B

CAUSES	DISCUSSION FOCUS GROUP's COMMENT
Human Resource	Need to review the task and responsibilities of PMO. Allocation of staff to PMO must based on experience in project management.
	There are a lot of training has been given to the staff. The problem is that most training was held at Kuala Lumpur. The training unit should also do regular road tour to states and districts to ensure that no staff was left out.
	Train the project engineer refer to the PMBOK 9 knowledge areas in order to enhance their skill and competency level. The department should provide more specific training especially on resources. Nowadays, they are lacking on usage and managing the resources and consequently the poor project monitoring because they failed to make the recovery on some issues.

DATA ANALYSIS AND FINDINGS

DISCUSSION FOCUS GROUP – SECTION B

CAUSES	DISCUSSION FOCUS GROUP's COMMENT
Internal Issue	JKR has already implement several project management tools but without 100% commitment and support from JKR leaders(top management) and JKR staff, all those tool would never be effective.
	PMO must and always attend site meeting. Don't just keep asking the report without knowledge what is happened at the project site. Worked as a team.
	The most important thing in project management is the attitude of supervision team and contractor.

CONCLUSIONS AND RECOMMENDATIONS

Objective 1: To Identify the Issues that Led to the Poor Performance of PMO

The identification of issues that led to the poor performance of PMO was achieved. According to the analysis, the top five (5) issues that led to the performance of PMO is weakness of allocation for resources across multiple projects. Classify projects using methodology of Acquisition Categorization (ACAT) to projects, contractor performance, low project management skill level, pressure related to social responsibilities, ethics and others; monitor and control project performance; including the development of Project Information Systems; and reporting function.

Objective 2: To Identify and Established the Improvement Method of PMO

The second objectives of identifying the improvement method is to established some of the critical methods includes of learning from others failure; provide a guidelines for project management; training; certification; provides project management consulting periodically as required; mentoring; competency development for managers; and creating an expert knowledgeable on the subject matters.

CONCLUSIONS AND RECOMMENDATIONS

Recommendation for Future Study

It is suggested also that the study will be extended to PWD clients, contractor and consultant to have an opinion and feedback about PWD's PMO from the perspective of others.

Recommendation to PWD

It is recommended that PWD need to emphasize and expand the use of project management methods and tools that have been made available. Weaknesses in project management can be reduced if the use of project management methods and tools are widely used in the PWD. Application of these methods should be applied, and the understanding of each staffs should be enhanced to increase the performance of the PWD.



THANK YOU