

CHAPTER 7

CONCLUSION AND RECOMMENDATIONS

The aim of this exploratory research is to study current project management practices in the Malaysian construction industry, especially how management processes, theories and principles can be applied to explain current industry practices and to address the managerial problems.

The study also defined areas for future research and development which is explained in Sub-Section 7.2.2.

7.1 CONCLUSION

First, it is concluded from this exploratory research that management processes and tools could be used to explain current practices of project management in the Malaysian construction industry. These management processes and tools are applicable in all projects immaterial of their size, type, or location.

The nine (9) steps in the Formal Planning Process are applied by project managers throughout the project life-cycle. In the project visualisation period project managers apply the steps of goal formation and identification of current strategies and objectives. In the project design phase, environmental analysis, resource analysis, identification of strategic opportunities and threats, determination of extent of strategic change required, and strategic decision making are applied. In the project implementation phase measurement and control of progress are applied. Similarly, in the project commissioning and hand over phases measurement and control of progress are applied.

In organising a project team, Earnest Dale's five step process of listing the tasks, dividing the tasks, grouping the tasks, and then coordinating and monitoring the progress of work, is applied by project managers.

Planning tools and techniques such as the Program Evaluation and Review Technique (PERT) and Critical Path Method (CPM) are utilised in planning the project implementation programme.

Mockler's four steps in the control process, of establishing standards and methods of measurement, measuring performance, comparing performance to standards, and finally taking corrective action, are applied when measuring and controlling the project in the implementation, commissioning and hand over phases.

Management theories and principles may also be applied to address the problems of project management in the Malaysian construction industry. Project organisations need be flexible to allow group action and open communication in order to meet the requirements of the turbulent or changing project environment. The environmental approach in organisational design, may be applied to create such flexible project organisation structures.

Project managers in the Malaysian construction industry need to play an active role in motivating members of the project team. Failure to motivate members has resulted in the problem of high turnover of project team members. In order to address the high turnover of resources, the expectancy and equity theories of motivation may be applied because they are the best predictors of turnover.

Situational variables of project team members result in leadership problems in a project organisation. In leading a project team effectively, project managers may apply Hersey & Blanchard's Situational approach to leadership, because they isolate the situational variables among the project team members and suggest the best leadership style for each situation.

It is also concluded that change in project management is inevitable and change should be managed rather than let to happen. In order to manage change project managers must be able to identify change and the resistance to change before implementing the change by managing the resistance.

Finally, it is concluded that in order to develop project management in the Malaysian construction industry for the next millennium, several changes in the management approach should be considered. These changes should also improve the effectiveness and efficiency of project management in the Malaysian construction industry. The proposed changes are recommended in Section 7.2.1.

7.2 RECOMMENDATIONS

The recommendations in this sub-section are divided into two parts: managerial recommendations, and recommendations for further research and development.

7.2.1 Managerial Recommendations

It is recommended that project managers in the Malaysian construction industry should consider the following changes for implementation.

First the role of the project manager should change in the following sense. The project manager of the next millennium should;

- develop the ability to envision and see the greater picture (helicopter view)
- apply divergent thinking to develop more than one alternative then apply convergent thinking to select the best alternative.
- understand the needs of clients, and develop their trust in order to influence their decisions effectively.
- practise suitable leadership styles based situational variables.
- proactively motivate project team members.
- maintain equal and fair treatment of members in the project team.
- encourage suitable and healthy interaction among project members.
- encourage the understanding and tolerance of individual differences among project members.
- actively practise participative decision making in projects.
- identify change early and manage the implementation of change efficiently and effectively.

Secondly, the application of managerial approaches should change as follows;

- the application of the Formal Planning Process should be more flexible. For example, environmental and resource analysis may be carried out before identifying the current objectives, and likewise for other processes, if the situation warrants.

- project organisational design should create team or group setting rather than a functional or a matrix structure, and team members should be evaluated and rewarded based on group performance.
- companies in the construction industry should network with one another to source project personnel.
- companies should change their attitude towards building people skills and emphasise on developing the skills of project team members.

7.2.2 Recommendations For Further Research

The following are recommendations of areas worthy of further research and development. These areas of further research and development have been defined from the findings of this exploratory study.

Further research should be carried out on the role of project managers in determining how changes be recommended for consideration and be implemented in the next millennium. This is important because, as concluded in this study, the identification and implementation of change must be managed in a proactive manner to reap the best benefits.

Further research is on organisational design of project organisations should be undertaken. The recommendation to adopt team or group type organisations instead of the traditional structures should be studied to reach conclusive findings.

Research should also be carried out on the possibility of forming a network of construction companies to source and mobilise construction personnel within short notice. This should be an exhaustive study of implications, advantages, disadvantages and limitations.

Motivating the project team is also an area worthy of further research. Although it was concluded in this study that the expectancy and equity theories of motivation may be applied to address the current problems of high turnover among project team members, it may be prudent to identify other motivation methods to keep the project team members motivated at all times.

It was highlighted that leadership approaches in project organisations should relate to situational variables. However, further research to identify the leadership traits of project managers, and the requirements of a project leader, should be carried out to draw further conclusions on suitable leadership approaches in project management.

7.3 IMPLICATIONS OF THIS STUDY

The main implications of this study are applicable to project managers in the Malaysian construction industry, especially those who have been practising project management without realising the importance of management processes, theories, and principles in project management. This exploratory research highlights that project management processes are related to management approaches. Management theories may be used to explain problems identified in project management.

The study also indicates that the management theories and approaches are applicable even in technical industries such as the construction industry.

Apart from the above this study gives recommendations for change in project management for the next millennium and defines areas worthy of future research and development in this field that experts, researchers, and students of management can undertake to assist in developing project management in the Malaysian construction industry.