CHAPTER 2

LITERATURE REVIEW

Several articles published in the professional magazines of the Project Management Institute present some thoughts and ideas on project management in the construction industry and the vision for the next millennium. Apart from that, some papers published by the Business Process Resource Centre at The University Of Warwick, United Kingdom, have provided some valuable information for this research. The published literature has been beneficial in guiding this research.

The review of literature that had significant relevance to this research paper is presented in the following sub-sections. The literature review has been carried out with the aim of linking the ideas and findings in the published literature to project management in the Malaysian construction industry.

2.1 HISTORY OF PROJECT MANAGEMENT

Before drawing conclusions to the lessons learnt over the years in project management, it would be beneficial to provide a brief overview on the history of project management and the problems and issues in projects management by approaching it according to the set phases in the management process (Winch 1996).

Historically, project management was perceived as essentially an organisational innovation, which became more widely associated with management tools such as organising, scheduling and cost control (Winch 1996). This perception is true even now in the Malaysian construction industry. For nearly 20 years after the heroic sixties era of project management, the importance of this discipline was neglected in the UK, because in the seventies it became more associated with project failures. However, in the late eighties there were clear signs of a renaissance of interest (Winch 1996). In Malaysia, however, formal project management was first introduced only in the late seventies and it became more widely used in the nineties.

2.2 PROJECT MISSION

The identification of a clear mission is essential for effective project management, yet it is difficult because, the cognitive horizon of strategic decision maker is usually shorter than the lead time of most projects; the complexity of the client organisations, their regulatory environments coupled with the absence of quantitative tools, result in highly politicised project missions (Winch 1996). This is a phenomenon found in the Malaysian context.

Winch believes that the compression of the project life-cycle provides competitive advantage in project management by reducing the uncertainties because the strategic horizon is brought closer. However, he has not envisioned the other project management problems such as the need for additional resources, increase in cost and so on which may result from compressing the project life-cycle.

Winch concludes that project management offers the most effective way of minimising waste and maximising the benefit of a project. It should be perceived as a discipline that adds value to a project if the mission of the project can be well defined to avoid latent surprises to the client.

2.3 PROJECT ORGANISATION

The essence of project management is the ability to manage the procurement and mobilisation of resources, the identification of tasks, and the organisation and motivation of resources towards the successful accomplishment of the project mission (Winch 1996).

Traditionally projects were organised functionally. However, in order to improve customer focus, organisation by process was deemed more suitable, but this led to compromise in the efficient use of resources. As a result, matrix organisation, which gives the best of functional and process organisation, becomes more widely accepted.

Projects are fluid because changes in client requirements, design, cost and organisation are inevitable. Members of project organisations are also bound by contractual obligations which may be affected by change, such as delays in activities with fixed contractual completion dates. There is a pervasive problem of adversarial relations among the various parties in a project organisation as they try to cope with the uncertainties of the project within the rigidities of the contract (Winch 1996). Since Malaysian project organisations consist of people who differ in knowledge, experience, culture, personality, etc., relationship problems will arise when they try to focus on achieving a common goal.

Another great challenge of project management is maintaining the resource base that is human and technical resources (Winch 1996). This is especially true in the Malaysian construction industry today, where the turnover of resources is high and striking a balance between immediate demands and long term viability is difficult. When there is a construction boom the industry's demand for resources escalates. Companies compete with each other to maintain a larger resource base in order to meet their requirements. This inevitably translates into high turnover because individuals are attracted to better offers by competing employers. However, when the construction industry experiences a slowdown, companies are faced with a burden of excess resources and thus maintaining a large resource base is not viable for the long term.

2.4 THE ROLE OF THE PROJECT MANAGER

A different economy is emerging. Peter Drucker and others have labelled this as a "knowledge society", where the education process never stops. New technology, changing business environments, new demands for partnering and teaming, and diversity in team environment are changing the way projects are managed (Darnall 1996). This is a phenomenon being realised in the construction industry in Malaysia today.

The development in information technology has enabled members of project organisations to communicate and access information easily through the internet. Business environments have become more competitive and at the same time more interdependent. There is a growing demand for partnering and grouping, for instance design and build projects where the designer needs to partner with the builder to carry out the project. And finally project teams are being filled with people from diverse backgrounds in terms of knowledge, experience, personalities, culture, etc..

Therefore it is essential to bridge the gap between the current level of skills and the skills needed to manage increasingly complex projects. Traditional project management concepts such as scope development, managing the change process, and accurate forecasting is not enough and the project management focus of today is people skills. The following are some challenges facing a project manager in a changing economy (Darnall 1996);

- the ability to map pathways from present to the future,
- the ability to envision the future of the project in words and drawings,
- the ability to apply divergent thinking by discovering more than one right answer,
- the ability to apply convergent thinking by focusing integration of data and prioritising choices,
- the ability to understand what motivates members of the project team,
- the ability to develop a high performance team that is innovative and self learning.

Project management literature strongly emphasises the role of leadership in project management. The range of leadership skills required cannot usually be contained in one person. Project leadership is a team effort, while the project manager leads the team (Winch 1996). This is true to a certain extent, but the project management leadership style should be adapted based on individual project situations.

In the research on project management in the Malaysian construction industry, the above demands are explored for ascertaining the changing expectations on the role of project managers, for the next millennium.

2.5 MANAGING CHANGE IN PROJECT MANAGEMENT

Change is inevitable and will happen in project management. Effecting this change as opposed to letting it happen is often the difference between success and failure. Success results from effecting change proactively and the way projects are managed, while failure often follows unsupervised change efforts (Pascal & Carland, 1997). In the context of the Malaysian construction industry, it is absolutely essential that change is recognised and managed in a proactive manner, because the environment is very fluid.

Change is depicted in a two tiered model (Pascal & Carland 1997). The first order of change is applying common sense, with a focus on solving the problem. Therefore, it is more concerned with the reasons behind the problem in order to achieve a sensible solution. On the other hand, the second order change is often counterintuitive and is seen as radical because it attempts to alter the solution. It focuses on what is wrong and not why it is wrong. Whichever order of change is required, project managers must ensure the following in effecting change;

- Change must start at the top, that is, the upper management must recognise, support and effect the change.
- Change needs to be mapped out and project managers must realise that proactive measures to influence change will determine its success.
- Change must be effected at the right time and project managers must be able to anticipate the change before it arises.
- Change must be appropriate because change that is inappropriate will not solve any problem.

Resistance to change is a common barrier experienced in the Malaysian construction industry. It is more often that change is allowed to happen and in such circumstances reactive measures are taken. Some of the main reasons for resisting change in the Malaysian construction industry are, the fear of the unknown, loss of status-quo, failure in the ability to identify the appropriate change and personal loss of power.

2.6 PROJECT MANAGEMENT IN THE NEXT CENTURY

Cabanis (1997), conducted some interviews with some great thinkers on the future of organisations. These people shared their vision of project management for the next century.

2.6.1 Project Organisation

Oren Harari, professor of management at the University of San Francisco, and author of books on managing change and moving into the future, concludes that as long as the world remains stable, predictable, routine, without technological or cultural change, it makes sense for projects to create organisations around that. However, this is not the reality of today or of the future. Projects are becoming businesses that comprise of fluid networks of unaffiliated organisations. Routine work can be outsourced or automated, and the real value of a project organisation will depend on how quickly people can come together to focus on problems, implement solutions, and then disband (Cabanis 1997).

Watts Wacker, a speaker at the Projects World Conference in Washington D.C., concludes that project organisation is moving from a metaphor of architecture to a metaphor of ecosystem where four relationships exist; competitive, predatory, symbiotic and parasitic. They co-exist and the players change their relationships with each other throughout the life-cycle or when environment changes (Cabanis 1997).

This research explores the organisation of projects in the Malaysian construction industry to identify the issues for the future and the above ideas could present possible solutions.

2.6.2 Building People Skills

Margaret Wheatley, president of the Berkana Institute, and a former professor of management at Brigham Young University, finds that the current thinking about project based work is that the organisation has no commitment to the individual other than employability, and focuses on instrumentality of people while ignoring the importance of relationships. This view has to change in order to keep people motivated and committed while developing people who know how to learn, think, and reflect (Cabanis 1997).

Jennifer James, a columnist for the Seattle Times, concludes that more people will move into creative work that uses the highest skills in what Maslow called self actualisation. In order to manage these people managers need to equip themselves with better motivation and communication skills. People should be motivated on how to think through education (Cabanis 1997).

The only change needed in project management is building people skills (Darnall 1996). This is explored in the context of the Malaysian construction industry, for this research paper.

2.6.3 Project Management as a Process Not as a Task

Michael Hammer, the originator of reengineering, concludes that project managers have to evolve into process owners rather that task owners. A process owner designs the process for a team to carry out. Hammer believes that all task implementers will have to see the big picture of the process to work as teams to achieve a client's needs (Cabanis 1997). Project management in the context of this research is very much process orientated