CHAPTER 6
SUMMARY AND CONCLUSIONS

6.1 INTRODUCTION

'Capital budgeting is the process of evaluating and selecting long term investment consistent with the goal of owner wealth maximisation' - (L.J. Gitman, 1985). Hence, capital budgeting decisions are significant decisions to be made by a firm. They involve a large commitment of a company's resources and are instrumental in shaping its future.

This final chapter summarises findings of the investigation and offers possible reasons, rationales and justifications for the disparities between actual capital budgeting practices of TNB to that advocated by finance theory. The chapter ends by suggesting proposals to further improve the present capital budgeting techniques of TNB such that the aim of capital budgeting could be achieved. Last, but not least, the chapter highlights limitations of the investigation and recommends areas worthwhile of further research.

6.2 SUMMARY OF CAPITAL BUDGETING PRACTICES IN TNB

The study indicates that there are no standardised capital budgeting practice in the four SBU's/Division of TNB. Procedures and guidelines as to how to obtain approval and budgets to implement projects do exist, and there are already working committees at various levels to decide and approve projects of different costs.
There is also a system by which additional funds could be sought after for ongoing projects and a system to obtain budgets for any unforeseen projects. However, there are no standard criteria or policy by which projects could be evaluated for approval and implementation.

The generation of most project proposals in TNB are all initiated by the needs and requests from potential consumers rather than TNB’s own desire to increase its shareholders wealth. In generating project proposals to fulfil the requests and needs, except for the Generation SBU, alternatives put forward by other SBU’s are not exhaustive and there seems to be a lack of effort in exploring other options to fulfil these requests.

In the evaluation process, there are no standard procedure to follow and capital budgeting tools employed to evaluate projects differ between SBU’s and also between projects in the same SBU. We find that SBU’s which undertook projects with huge capital outlays, such as the Generation SBU, carries out a more elaborate evaluation process than other SBU’s which undertook smaller projects.

Techniques such as NPV, IRR and Benefit/Cost ratio are currently being used, but their usage are not universal and there are no guidelines or policies as to the preferred technique to be use.
In our investigation, we find that there are no standard basis for selecting the preferred option. Financial and economic evaluation are being carried out by some SBU’s, but they are by no means the only criteria by which projects were selected. They were used more as a guide rather than as an ultimate criterion to select projects. For some cases, projects were selected and approved for implementation irrespective of their economic and financial returns.

Nevertheless, our investigation reveals that projects generally must satisfy the following standards for them to be acceptable:

i. B/C ratio must exceed one

ii. IRR (or EIRR) must exceed 10%

iii. NPV must be positive

However, the above standards need not be satisfied for projects which are urgent, mandatory, imposed by the Government and implemented for social reasons.

Sensitivity analyses are carried out in some projects in the Generation SBU but not in others. Risks are not sufficiently addressed and so are the other crucial capital budgeting issues such as, inflation, cost of capital and hurdle rates. These analyses are not a requirement or standard practice in capital budgeting in TNB.

In our investigation, we also find that investment and financing decisions are always treated separately. Projects are approved for implementation irrespective of how it is to be finance.
There is certainly a lack of investigation into the optimum capital structure of projects prior to approval and implementation. Currently, there is no definite policy on the financial mix of projects. Financing of projects is purely based on availability of funds. For projects with low capital outlay, internal funds are used, otherwise external funding is sought after.

During implementation, project costs are monitored by the Finance Unit of the Corporate Division through the submission of various Interim Completion Certificates by the implementing SBU. Any differences between actual and original costs needs to be explained and justified by the implementing SBU and approved by the relevant authority. Our investigation does not reveal any financial re-evaluation being carried out on projects where there are escalation in costs.

Post-auditing or review of projects after completion is minimal. Nevertheless, records of performance for certain projects are available. These records could be retrieved, either directly or indirectly, and used if any post auditing is required.

6.3 RATIONALE AND REASONS FOR DIFFERENCES BETWEEN THEORY AND PRACTICE OF CAPITAL BUDGETING IN TNB

Our investigation reveals that there are disparities between the current capital budgeting practices of TNB to those put forward by financial theory. The rationale and possible reasons for the disparities could be due to:
a. TNB was established and operates under The Electricity Supply Act (1990). By the Act, TNB has certain duties and obligations to supply electricity wherever necessary. As such, most distribution and transmission projects are approved for implementation without an elaborate evaluation process and irrespective of its financial returns. Investment into these projects are mandatory rather than discretionary. The evaluation process is more to select the best option rather than to see whether the project contributes towards increasing the shareholders wealth.

b. Supply of electricity is being regarded as a social obligation and TNB is required to perform it at whatever cost. Electricity is an essential need for development and projects need to be implemented for the generation, transmission and distribution of electricity. TNB therefore needs to implement these projects though some may not be financially viable.

c. TNB was privatised in 1990 and although it is a public listed company, TNB is still 75% owned by the Government. It is therefore more socially rather than financially inclined. Though projects with good financial returns are always sought after, financial returns have not been the ultimate criterion in selecting projects.

d. TNB supplies 97% of the electricity needs of Peninsular Malaysia, and enjoys a monopoly in terms of electricity supply.
Currently, there is no competition to TNB. This leads to complacency and the lack of assertion on the part of TNB's management to employ sophisticated capital budgeting techniques in implementing projects.

e. TNB is in an electric utility industry which is a unique industry. The uniqueness of the industry is that electric utilities are intertwined with the community and the utility must serve the needs of the area. It cannot move to another location and there exists a permanent link between the utility and the user. TNB is recognised as a natural monopoly which requires Government regulations. Government regulations is required to safeguard public interest. TNB can impose tariff for its services but tariff needs to be approved by the Government. This could be another reason for the lack of effort by TNB to use techniques which would contribute towards increasing the shareholders wealth.

However, our investigation also reveals that in recent years TNB is propelling itself into the right direction in terms of its capital budgeting practices and these include:

a. The increasing trend of using more elaborate techniques such as the DCF techniques (IRR and NPV) in the evaluation of projects which involves huge capital outlays.
b. TNB already has a set of procedures and guidelines and proper working committees to approve or reject proposed investment projects.

c. TNB is also in the process of educating and exposing its staff to these new and sophisticated methods of capital budgeting practices.

6.4 PROPOSALS AND SUGGESTIONS FOR FURTHER IMPROVEMENT

From the findings of our investigations, it is proposed that TNB adopts the following for the betterment of its future capital budgeting practices:

a. To ensure maximisation of wealth to the shareholders and to enhance the financial strength of TNB, the use of more elaborate techniques such as the DCF methods (IRR or NPV) must be adopted.

Capital should be expended only on investments which points towards the maximisation of shareholders wealth. However, this should not be carried out at the expense of neglecting TNB's social obligations and duties. A balance therefore needs to be attained, and in order to do that, it is proposed that TNB must first categorise between mandatory and discretionary projects.

Categorising projects would help in identifying financially viable projects and projects which are implemented as a social obligation. At the same time, TNB must set aside an allocation on a yearly basis on the quantum amount to finance these social obligation projects.
b. The generation of investment proposals should not only be based on the required electricity needs or applications for electricity. There should be projections and targets on what should be achieved. Strategies are to be work out on actions to be taken in order to achieve the target and to stimulate the market.

Currently, the situation is not critical as the country is still growing and demand for electricity is escalating. Hence, there's a ready market for electricity. TNB, now, only has the social obligation to service this market. The situation may however change with the saturation of the electricity market or existence of competitors.

Generation of investment proposals should not only be initiated by needs or requirements, investment proposals should also be generated from financial viability of projects. TNB should be proactive in its approach to investments.

c. There should be standardisation throughout the whole organisation and techniques and procedures used should be consistent. In order to do that TNB should:
   i. Estimate its cost of capital
   ii. Adopt the DCF methods especially the NPV as the standard methods of evaluation,
iii. Ensure a more reliable estimate on future cash flows.

v. Adopt risk and sensitivity analyses as standard analyses for project evaluation and selection. More sophisticated techniques like simulation and decision tree should be utilised whenever applicable.

d. Investment and financing decisions must be made together. During evaluation, project financing and the proposed financial mix of the projects must be taken into account. Related issues such as issue cost, interest and tax shields which arise due to different financial mix must be addressed as these affects the viability of projects.

e. A review or post-auditing is a must for all projects that has been completed. Deviations from estimated figures should be identified and investigations should be carried out to determine their reasons.

f. Finally, there must be a concerted effort from all relevant parties involved to practice these capital budgeting recommendations and there should be an elaborate programme on how they should be implemented. Relevant personnel should be more exposed to these techniques, and management needs to be educated on them.
6.5 LIMITATION AND PROPOSALS FOR FURTHER RESEARCH

Selecting only a single sample project from each SBU/Division and making judgment based on the single sample would not give a fair representation of the whole SBU/Division. Sampling, is therefore one of the main limitation of this investigation. The sampling may be good enough for the Generation SBU, where the number of projects implemented is small, but it is clearly insufficient for other SBU/Division where the number of projects implemented are large. However, the limitation was rectified to a certain extend by conducting informal interviews with relevant personnel in order to obtain a general overview of capital budgeting practices in each of the four SBU/Division.

For further research on the subject, it is proposed that a survey using a more structured form of questionnaire be conducted. This would help to reduce sample bias and would enable more meaningful statistical analysis on capital budgeting practices in TNB to be performed.

To further enrich the subject, a review of the financial performance of all the projects undertaken by TNB in all the four SBU’s/Division is also proposed.

Looking outwards, a similar investigation is proposed to be carried out on other utilities in Malaysia, like Syarikat Telekom Malaysia and Jabatan Bekalan Air. This would provide a comparative study on utilities and help to determine where TNB stands in relation to the other utility companies.
6.6 CONCLUSION

Capital investment is vital for growth and development of an organisation. Companies need good capital budgeting techniques to ensure that projects selected and implemented are good projects. These good projects could then reap in good returns for the company and this goes towards the maximisation of wealth for the shareholders.

The study reveals the lack of effective capital budgeting techniques that is currently being practised in TNB. There also has been a lack of effort in ensuring the adoption of these techniques. Due to its monopolistic situation, TNB has been complacent and has been implementing projects without proper evaluation and selection studies. Its social duties and responsibilities has always been used as an excuse for the lack of effort towards better capital budgeting practices.

However, now, as a privatised company, and with the emergence of competitors, TNB needs to ensure maximised returns for the shareholders. Projects implemented must be good projects which could reap in good returns. It is therefore proposed that proposals outlined in this study be adopted as part of a capital budgeting policy for Tenaga Nasional Berhad.