CHAPTER 4

CONCLUSION AND RECOMMENDATIONS

4.1 Summary and Conclusion

This study has developed a decision support system to help executives of small businesses using IS as a competitive weapon to gain their competitive advantage. As mentioned earlier in chapter 2, in planning strategic information systems, executives must realize the needs of the business from a competitive viewpoint, not only the IT technical requirements. However, in many cases, identifying IS depends on those experts who have many innovative ideas and vast knowledge of technology but often lack business awareness. The executives who know what it takes to succeed in the business are only rarely involved in formal strategic planning sessions..

The essence of this study is therefore to get executives of the business involved with the strategic information systems development. Consequently, business needs derived from them can be related to possible IS applications so that they can effectively create competitive advantage for the business, as expected. Equally important is to create the business environment awareness to the company of how IS can be used not only to reasonably respond to opportunities and threats confronting the business, but also to effectively exploit the strengths and reduce the weaknesses of the company.

4.4.1 Research chronology

The following items are the research chronology concluded from this thesis:

1. **Information Collection and Case Investigation:** During this stage, information related to this study has been collected, including literature review, business environment, company environment, industry environment, and expected requirements of the software from the case company. This information is also used as a support data for decision-making during the application stage.

2. **The Development of the ESS:** The development of the ESS begins by creating a conceptual model to be used as a foundation of the software. After the model is completed, the software is written using Microsoft FrontPage 2000 and running on Internet Explorer. During the development stage and after the ESS is finished, there are also several design verification and validation methods conducted to ensure that design output meets design input requirements for both users and creator.

3. **An Application of the Software to the Case Study:** In this research, a case study of one company has demonstrated some crucial steps in developing strategic information systems from the conceptual model in this study by the Web-based software called the ESS (Executive Support System). From the case study, even though there are some difficulties during the use of this ESS, the final results are quite satisfactory. There are a clear relationship that the IS applications identified can be related to business goals and strategies, thus assuring that they are properly derived to be strategic, high potential, key functional, or support systems to achieve the business goals, if implemented and managed correctly. The subject case company has decided to consider using these IS applications to create competitive edge for its business.

4. **Suggested Improvement:** The ESS itself also has some drawbacks that need to be improved. Helping systems and information support are considered inadequate in this version, especially for users with no experience in strategy formulation or SIS planning. Users demand systems like expert systems to perform an analysis for them. With further improvements suggested by the subject case company, the ESS can be much better in terms of executive support systems.

In conclusion, the ESS offers another option to develop strategic information systems for small company or business. It organizes users' idea to systematically analyze and reasonably make a decision based on their given situation. It can serve as a tool for other study relating to strategy formulation and information systems development as well.

4.2 Suggestions for the Case Company

Following this study, some suggestions for the company are as follows:

1. It is vital to get involvement and commitment from important members of the company throughout the IS strategic planning. Only then, all the development process can be conducted effectively.

2. All members have to be informed and agreed in terms and conditions of planning procedures. After that, the SIS development can be made under an understanding of everyone. This can significantly accelerate the speed of the SIS development.

3. It is important to reach consensus or the majority agreement as much as possible in each step of planning. Otherwise, problems or arguments may occur during the implementation stage.

4. In this rapidly changing environment, the application portfolio should be regularly reviewed and, if necessary, revised according to current situation. Established plans or strategies may not be valid anymore if changes occur and shape the competition in the industry. Monitoring situation and adapting plans properly can lead to major success of the company.

5. An understanding of the importance of business contribution of each IS application is crucial to the success of the IS implementation. Therefore, it is equally important to pay attention on the application portfolio management in order to effectively benefit from these IS as the portfolio evolves over time.

4.3 <u>Recommendations for Future Research</u>

Based on this study, there are other areas that should be further investigated in order to increase its benefits. The followings are some of the important areas recommended for further study.

♦ The identification of information technology to support the selected IS applications.

♦ An expert system or knowledge-based systems that can help identify strategic information systems for the company based on the given information.

♦ A study of information systems management in the company.

♦ An industry-wide study on the impacts of IS as a strategic weapon for competitive advantage.

♦ A study to test the differences between business-driven IS and technology-driven IS of similar companies in the same industry.

♦ A study on the validity of the strategic information systems formulated in this paper by implementing the strategy through the development of action plans, budgets, and procedures. In addition, the evaluation and control of the implemented strategy should also be conducted.

♦ A study of how to measure the benefits obtained from strategic IS applications in the industry.