# CHAPTER 1

INTRODUCTION

1.1 Rationale

Nowadays, there is little disagreement on the potential uses of information technology as a competitive weapon in today's business. Companies have realized many opportunities for improving their business performance through the development and use of information systems. It is now almost impossible to operate any businesses without assistance from computer whether they are large or small companies.

In many large or medium companies where resources are readily available, information systems are considered as a necessity to remain competitive. They usually have their own IS managers or otherwise they hire the consult companies to design or develop the effective systems for them. On the other hand, many small companies can not afford to do that. They usually have limited personnel and time to allocate for this matter. Many of them also have little or no experience about strategic information systems planning. The development of information systems is then usually lack of sufficient analysis or consideration for their particular competitive environment. The results are inefficient systems that provide little or no benefit to their companies.

There are a variety of strategic planning frameworks written in many books. However, still so many owners or managers of these small business have neither time nor opportunity to understand and evaluate many of the proposed frameworks that have been conducted to help identify strategic opportunities for information systems. Therefore, the development of a decision support tool that can help them to understand how these frameworks or analysis tools can be best used for their particular competitive environment is necessary.

1.2 Statement of Problem

This thesis is a case study of a newly established company formed by approximately 4 persons at this time. According to the owner's decision, this company is going to enter the PC business in the next year. It intends to sell hardware and personal computers to customers in domestic markets and the owners also have a plan to expand the business into other computer-related areas such as solution software, software education, computer service training, and Internet café. Currently, the company is in the registration process with the revenue department, employee recruitment, and location selection. It plans to have about 6 or 7 employees and one manager operating this business. The cash flow in the company is expected about 0.5-1 million baht per month.
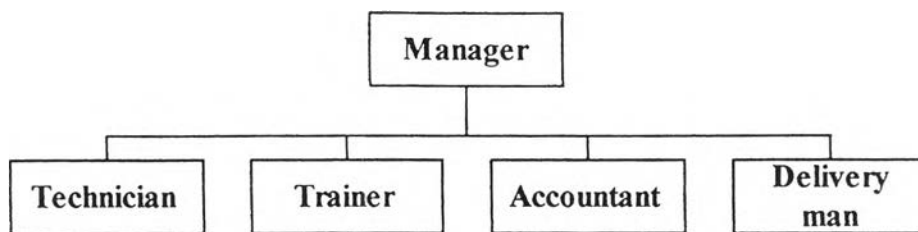
Figure 1-1 Expected Organization chart

Because of the fast increasing number of rival companies in PC business, the company is in a very competitive market. A challenging objective of the owners is to differentiate by providing more superior services to those competitors. The potential use of information technology as a competitive weapon is then considered by the owners.

However, most of the owners have little or no experience about strategic information systems planning. Due to limited time of each owner, there is no real considerations or analyses to understand the many different proposed methodologies or frameworks that have been constructed to help determine strategic opportunities for information systems. They also have little or no time to spend on reading vast literatures on strategic opportunities possible through information systems or strategic frameworks such as Porter's five force, value chain analysis, and critical success factors.

Unfortunately, planning strategic information systems requires experience and knowledge in both industry and management point of view, including systematic approaches from academic study. Moreover, the computer technology rapidly changes, thus making it much more difficult for the company to obtain its strategic goal if planning times are too long. If there is a tool to guide in generating of a strategic plan and articulate the appropriate link between business strategy and IS strategy, it will be very useful to the owners to better select appropriate strategies to meet the objective of the company. However, not enough analyses have been reported for small enterprises such as this one. Therefore, it is useful and essential to develop a systematic decision tool for guiding the owners in planning the strategic information systems in a more efficient and effective manner.

1.3 Objective of the research

The objective of this research is to design a decision support system to guide the executives of small enterprise in developing a strategic plan for using information systems in a computer business.

1.4 <u>Scope of the research</u>

The scope of this research will include the development of the company strategy since it is not been identified yet. The business and company environment will be analyzed and then the business strategy can be determined. The variety of frameworks and tools will be used for strategic information systems opportunities. The result is the potential information system applications for the company. All the processes will be concluded and then simplified into an executive support systems (ESS).

The designed ESS will provide the analysis of the three important perspectives of a competitive role for information systems in the business: the business environment, the enterprise environment, and the use of information systems. The specific details in each one can be summarized as follows:

♦ **The business environment**

➢ Analysis of the external environment (Competitive five forces, PEST analysis)
➢ Analysis of pressure groups and stakeholders (customer, competitors, stakeholders)

♦ **The company environment.**

➢ Analysis of the internal environment of the company (SWOT analysis)
➢ Development of the business vision, objectives/goals, and strategies.

♦ **The use of information systems**

➢ Analysis of the critical success factors (CFSs) for business success.
➢ The use of frameworks such as strategic thrusts and strategic option generator for strategic information systems opportunities.
➢ Identification of possible information system strategy.
➢ Suggestion of criteria for strategy selection.

Given the time constraint, this research does not include the development of information technology required to support the IS applications.

1.5 Methodology

This research will be carried out by the following steps:

◆ Study literature in strategic information system areas.
◆ Investigate a case study company.
◆ Investigate the business environment.
◆ Identify the use of IS in the business.
◆ Design an executive support system that can be used to help in the identification and selection of appropriate strategic information systems.
◆ Evaluate the designed ESS by interview and questionnaire responses from the owners/managers.
◆ Conclusions and suggestions.

1.6 Expected results

The expected outcome of this research is an executive support system tool for guiding the generation of strategic information systems and IT planning using application software such as spreadsheet or Microsoft Excel. A tool will help the owners understand how tools or frameworks can be used for their particular competitive environment. A tool will include:

◆ Guideline of business and company analysis.
◆ Guideline of the development of business strategy.
◆ Guideline of the use of SIS frameworks.
◆ Suggested criteria for IS strategy selection.

Since it is the case study on one company, the outcome of this research and recommendation may not appropriate for the whole industry.