

CHAPTER 6

CONCLUSION AND PERSPECTIVES

The ultimate goal of this research was to help foreign investors or manufacturers make the right decision on their businesses by providing a tool that helps them validate their decision. In this context three main requirements are important: 1) supply chain and infrastructure, 2) financial situation and 3) human skill and performance, which have to be considered on FDIs' investment. Along the supply chain network on FDIs' investment, there are also some partners which can be considered as key success factors in making sustainable businesses. Therefore, the study was organized into five chapters. Each chapter focused on different point of views in the study. The explicit results from each chapter are described as follows:

The **first chapter** aims at analyzing the business crises context and the need of FDIs for funding and implementing technology in developing countries. It was found that, especially in the electronics manufacturing sector, businesses depend on foreign investors to support both funding and resources. However, effectiveness in the supply chain and logistics is tremendous for this sector, as the structure of the electronics product network is international, and most electronics products are directly exported to the parent companies or their subsidiaries. Intensive labor is one of the main characteristics required by electronics companies. Moreover, in order to help them make a decision on FDIs' investment, discovering the potential factors affecting business crises was conducted. The literature review related to the influencing factors on FDIs and the survey by using questionnaires also confirms the three previous main requirements. However, it was also found that among the three potential factors, meeting stakeholders' standard plays a major role in creating and improving competitive advantage. The responding stakeholders are firstly the government and private sector of the Industrial Estate Authority of Thailand, secondly, foreign investors and, thirdly, manufacturers.

The **second chapter** concentrated on the relevant theories based on three main requirements affecting FDI (supply chain and infrastructure, financial situation,

human skill and performance). It was found that there are several benefits from those three requirements. Thus the specific aspects of each theory based only on those relevant theories cannot answer the research problem. No research work produces any evidence of each benefit in each specific theory concerning business in crises. Besides, many influencing factors have been studied in the context of FDI. For this reason, an integrated methodology to solve the problem was proposed.

To help foreign investors and manufacturers to make the right decision on FDIs' investment, the **third chapter** proposed an integrated framework with the appropriate methodology. The methodology comprised of three main components which constructed the research framework. These components were split into the three questions: "Who", "What" and "How". "Who" refers to the relevant stakeholders for FDIs. "What" refers to the relevant stakeholders' needs from FDI's investment, and "How" refers to measuring their performance and capability for FDIs' investment. Afterwards, all components were represented as a guideline to construct the research framework. The proposed framework was presented according to the discovered components. However, the strategies to be analyzed in the research framework were categorized into static and dynamic analyses. In terms of static analysis, a Risk Knowledge Matrix decision represents the knowledge based system used evaluate the occurrence of existing risks. Regarding dynamic analysis, the modeling of the supply chain simulation is constructed according to the Supply Chain Operations Reference (SCOR) model.

The **fourth chapter** shows the implementation and obtained results from the research framework. The application of the Knowledge Based Decision Support System (KBDSS) was mainly developed by integrating functions of the risk evaluation (static analysis) and the supply chain simulation (dynamic analysis) according to the proposed methodology. To demonstrate the implementation of the system, the sample scenarios were applied to represent the obtained results. The results of the evaluation were suggested among three scenarios of relocation, transfer or divestment of plants. Furthermore results from supply chain simulation were represented as the outcomes which were used to estimate future investment costs for foreign investors. Thus the KBDSS helped to provide a supporting tool for

manufacturers or investors in decision making on investments. Results from the KBDSS can help decision makers who are facing business crises, making the right decision on investing plants by suggesting the possible scenario of the existing situation of plants and estimating the supply chain cost of investment.

The **fifth chapter** concentrated on applying the KBDSS to a case study of a manufacturer the in Lumphun Industrial estate area, Thailand. It aimed at validating the proposed framework on the real case study. The outcome from evaluating risks and supply chain cost simulation were conducted among two site locations of Thailand and Vietnam. The advantages of this knowledge based system were provided as the supporting tools for manufacturers or investors in making decision of investments.

From our perspective, Although this study showed the ability of the KBDSS to support the decision making of FDIs, it can be improved in two aspects: methodological aspect and technical aspect. The methodological improvement concerns the use of knowledge. As the proposed knowledge base of the Risk Knowledge Matrix decision, the knowledge helps decision makers evaluating their existing risks in business. Thus this knowledge can be represented in depth in terms of ontology. It is in order to clarify the relationship between causes and effects (the occurrence of “a” leads to “b”), or discover the cause of the problem leading to business crises among the situation of relocation and divestment of plants. In this case, if the users found the unwelcome circumstances leading to business crises, then they could prevent them before then occur. Thus, this represents an ontology that will help to represent the knowledge and its relationship factors on decision making of FDIs.

Further, from the technical point of view, the supply chain simulation which was developed based on the ARENA software, has been defined with the limitation of variables used due to the limit of the “evaluation mode” version of the software (intended for academic proposes). Thus, creating an animation to illustrate the system helps decision makers to understand the processes and characteristics of supply chain and logistics networks.