

## Chapter 6

### Conclusion and recommendations

This thesis develops a common feasibility model package for investment in manufacturing facility project that involves the analysis of marketing, manufacturing, and financial implications. Such project feasibility is considered as an indicative information based upon historical data and expectation that aids the decision-maker to address the result. China project was brought as an example of showing how feasibility model package has been taken.

Its profile can be basically used in other sort of business (e.g. automotive industry, consumer product industry). Concisely, feasibility profile consists of marketing opportunity analysis, manufacturing analysis, and cost / financial analysis.

**1. Market** Market opportunity analysis covers significant market implications dealing with business environment in both macro and micro views, SWOT and TOWS matrix analysis, market STP (segmentation, targeting, and positioning), marketing plan (4P), and demand / sale forecast.

**2. Manufacturing** Manufacturing analysis involves manufacturing technology considerations, capacity analysis, organization structure, plant / location, and material technology / application.

**3. Cost / financial shape** Project cost and finance are to be figured out through its software program that mostly works on Microsoft Excel. This program is composed of eighteen files whose variables are input, output, and their sensitivity. Typically, three models that characterize the program are manufacturing model, financial model, and marketing model. For better understanding, IDEFO is used to schematically structure the software configuration.

#### **4. China project summary** ( First investment phase )

Extrusion process : Davis standard\_\_\_\_\_ 1 machine.  
Thermoforming process : DP450B\_\_\_\_\_ 2 machines.  
F470 \_\_\_\_\_ 1 machine.

OMV F-30 \_\_\_\_\_ 2 machines.

Printing process : Vandam 658C \_\_\_\_\_ 1 machine.

**NPV : 13,770,704 RMB.**

**Sensitivity : Sale revenue > Currency exchange > Raw material price >  
Long term interest rate**

From financial results in Appendix A, NPV dictates relatively low profitability but project sensitivity demonstrates low business risks with reference to +/- 20% of defined fluctuated variables (e.g. sale revenue, raw material price, currency exchange, long term interest). In some other respects, China has a considerably high potential country of the world due to its 1200-million population. Much more development reflecting business opportunities are to be done in this country.

With reference to the company strategic policy that is "Geographic diversification", it is noted that China project is recognized as a pilot project that leads the company to settle the other businesses in the future. China project should then be decided to kick-off as soon as possible.

## **5. Comments on literature review and practical aspects**

In literature review, many relevant aspects have been conceptually mentioned to picture the overview of project feasibility analysis. Besides, it proposes the detailed concepts in each aspect that suppose to be the guidance for taking action. It must be nonetheless noted that several businesses have both differences and similarities by their natures. This is for instance, petro-chemical business, consumer industry business, and so on. This subsequently reflects that several project feasibility analyses are often different in detail but similar to their profiles (e.g., market, finance, manufacturing, and management)

China project feasibility analysis correspondingly uses the project profile that has been proposed by literature review but the detail has been modified as appropriate, for example, financial statement format, selective financial variables., etc. It is founded that such profile provides very thorough thought in doing such analysis.

Besides, the other comment regarding financial feasibility software is process-modeling technique. Literature review recommended using IDEFO as a tool to picture the software configuration. After using such technique, it can be said that

IDEFO is fairly easy and effective techniques. Also, this enables the reader to easily understand by its graphical presentation.

## **6. Benefits of study**

According to the expected benefits in the preface section, first is to facilitate economic decision-making and second is to provide the guideline in implementing the projects. It can be concluded that both of them are accomplished. Such China project feasibility analysis indicates the project status that significantly support the decision-makers. Once, such project has been approved, the proposed plans that readily mentioned in the paper can be immediately brought into implementation, such as, marketing plan, manufacturing plan, expansion plan ,etc.

## **7. Recommendations for further study**

From an academic viewpoint, this project feasibility study is mostly based upon numerical analysis, which is fairly easy to figure out. But, in reality, there some other significant aspects that also contribute to the project survival. Such aspects require non numerical analysis analysis, for instance, politic, economic, ethnic, and so on. Such numerical and non numerical analysis cause the difficulty in decision making. It is then suggested that further study should go toward incorporating such two analyses that may bring about better decision making.

The other recommendation for further development is to apply database to financial feasibility software. This is because Microsoft Excel is not good at handling database management. This could be done through incorporating database software package, like Microsoft Access, or Visual Fox-pro, and spread sheet software program, like Microsoft Excel. Such recommendation will bring about better software performance due to some part of software, like product information and their list.