CHAPTER 5

CONCLUSION AND SUGGESTION

This research focused on plant location selection in the case of plastic industry and concrete industry. The plant location has effect on the plant layout manufacturing operation, cost and capital investment of both industries. The plant location selection is the most important decision made by company management. A good location helps company to gain competitive advantage at high profits in production and operation process.

The problem of plant location selection is a critical concern with the company's profitability and productivity in the future. It is main task of manager or business owner to find suitable location for a new plant. There are several factors that influence for users in making plant location selection decision such as market location, transportation facilities, utilities facilities, raw material accessibility, location cost, plant construction cost, BOI promotion location and so on. The location factors are the key that helps users in making decision in the right way for new plant location.

In this research, we use the decision support system helps users to focus an ideas directly and easily to decision making process in plant locations selection by analyze information from factors and information related in select plant location. The method that used in plant location selection includes the Location Factor Rating Evaluation.

After, we studied factors that influence for both of l plastic industry and concrete industry. We found each industry has considered in differ factors in making plant location selection decision such as, market location, labour supply, raw materials location, transportation facilities, utilities facilities, construction cost, location cost, BOI investment promote location.

In the questionnaire, we asked the question to the business owners, managers or someone related in position. According to questionnaire, the result of questionnaire show the sources of raw materials and market location for both industrial, plastic industrial and concrete industrial that help us to know information about the location of raw materials and market place for both industrial in Thailand.

Sources of raw materials of plastic industrial are located at Bangkok, Rayong, Samutsakhom, Samutprakran, Suphanburi. And Sources of raw materials of concrete industrial are located at Rayong, Saraburi, Chachoengsao, Kranjanaburi and Phetburi

Sources of neamess or accessibility to the market factor of plastic industrial are located at Bangkok, Saraburi, Samutsakhom, Samutprakran. And Sources of raw materials of concrete industrial are located at Saraburi, Chachoengsao, Kranjanaburi, Nakhomprathom, and Chonburi

In questionnaire result shows that there are differ relative priority important in each factor between plastic industry and concrete industry. Plastic industry consider in BOI promote location and utilities facilities to receive tax privileges (reduce about 20% for import raw material) and facilities in electricities, water supply and communication to support them in manufacturing operation. For concrete industry consider in transportation facilities, neamess or accessibility to the source of raw material and neamess or accessibility to the market. Because of concrete industry is heavy manufacturing. A transportation facility has more important for them to transport goods to customers and raw material into factory.

To develop the database system for plant location selection;

Database, we collected provinces information related to plant location selection such as, province name, province description, and income per head, utilities facilities, the amount of

employment, the minimum wage rate per day and BOI investment promotion zone in each province. It enables us to collect province information requirement, change data, insert new data easily and quickly because it is the center of data.

- Database helps to increase capability to manage the information, evaluate and access to the information through the database.

5.1 Recommendation

For plant location selection, it shows users or investors has more power in making decision for plant location selection especially business owners. Before using the system, users have to understand the concept of factors that setting in the system. Otherwise the final result of this system will provide the wrong province alternatives result. Because of each user has different experience and knowledge so it may make a mistake to assign the value into each factor that relative priorities of important for factors (most important, important, neutral, poor and very poor) influencing his/her choice in making decision for plant location selection.

- This system cannot instead of human, it used as a guideline that provide information related for investors in making plant location decision before setting up a new plant under a number of factors that affect business operations.
- This system does not support all period of time if industry factor had changed. Because of this system has to develop to support users requirement in making decision for plant location selection base on questionnaires and theories in currently. However, main idea of this research and system can be applied to other systems with the similar nature. It also allows person to study and edit some part of this system to meet user's requirement in the future.

- In questionnaire design, it should be explain for each question that allows user to collect the right answer. It helps users to get the right answer and benefit for us to use this information to develop a decision support system for plant location selection
- In future, users should add more province information into the database that help investors or business owners to find the suitable new plant location selection because of this research is cover about 18 provinces. However, adding new province location does not make mistake for the system because of we were collected any information in form of database.

That user can increase information in the future effective and efficiency. We assigned each score of each factor in a common scale for all location factors to all location alternatives (each province) about 0 to 100 scores. It is a standard scores to assign score of each factor for all location factors show in table 7.1

Table 7.1: Standards that use to be assign score (out of 100)

Score	Meaning
90-100	Excellent compare to other location alternative.
80-89	Almost excellent compare to other location alternative
70-79	Very good compare to other location alternative
51-69	Good compare to other location alternative
41-50	Satisfactory compare to other location alternative
30-40	Poor compare to other location alternative
0-29	Very poor compare to other location alternative