CHAPTER VI

CONCLUSION AND RECOMMENDATION

6.1 Conclusion

In order to maximize profits in any businesses, time-to-market is one of the most important factors that firm have to concern. Generally, production time is an important factor to effectively serve the customer demands, especially in machine spare part business. In this business, production time and quality are normally the most significant factors for most customers to decide on purchasing or doing business with the company. Therefore, competent manufacturer who are capable to launch product quicker and better will have high competitive advantages in the market.

To control and manage production time of a product, production planning control has to be concerned. To establish a production plans, manufacturer has to determine standard time of product first. To determine standard time, numerous data and information of product has to be controlled and managed efficiently. Therefore, product data management then becomes the most important issue that should be considered before companies can start growing up in the market.

Classification and coding system is one important subject in product data management. Products having similar attributes that will be determined standard time should be classified and grouped together since it will provide many advantages to classifier. Therefore, firm should do both classification and data management together.

In order to done both above subjects, this study has done many steps shown as follows:

1. In the first period, the study put emphasis on collecting significant data related to the system such as the objectives of the study, company structure, business environment, problems circumstances, user's requirement, product characteristics,

and others. Then all information has been gathered and analyzed in order to create concept of the system. Consequently, researcher decided to establish two significant system, which are classification and coding system, and product data management.

2. In the second period of the study, the principle idea of literatures have been collected and analyzed whether they could be applied with the case situation or not. Consequently, group technology, cataloguing, product data management were selected to be the base ideas of the establishment.

3. In the third period, the researcher applied the concepts of literatures to the case situation in order to establish the system. The methodologies of this section have following details.

To develop classification and coding system, analysis step and system development step are presented. At analysis step, manufacturers should begin from setting the objective of the system. They have to analyze the reason of establishing the system and expected benefits of the system. Next, they have to know who the users and what they require are. Then the suitable organization structure has to be determined. After that, they have to consider their resources and their existing system. Finally, product characteristic have to be analyzed. At development steps, company will used previous analysis to develop the system.

To develop product data management, the study uses a company, who is participating in spare part manufacturing business in Thailand, to be the case study. In the case company, standard time of a product can be determined by using past manufacturing data in manufacturing sheet call "Work Order Sheet". It is used to record all production information such as product drawing, production time, material information, and cost. WOS is currently kept in documents, which are usually lost and damaged. Therefore, the study introduces computer database system in order to enhance the security and reduce searching time.

4. In this period, products of the case company were firstly classified and coded. However, the researcher has to adapt the system constantly in order to find the better system that suitable for the product characteristics. As a result, the standard code

structure has been concluded and implemented. Then the company could group products having similar attributes and standard time together and also determine the standard of them by using the developed classification and coding system.

5. In this period, computer system, a tool of both classification and coding system and product data management, was developed. It provides 9 advantage sections that are

- Product Classification and Coding section
- Code Structure section
- Product Structure section
- Product Search section
- Product Edit and Delete section
- WOS Search section
- WOS Add section
- WOS Edit and Delete section
- Security section

5. Once the system has been developed, it was applied in the case company. The result shows that the case company could determine the average production time of a product. Moreover the product data was safely kept in the database system which can be searched quickly and correctly. However, at the beginning of the implementation, searching time of some users did not decrease. This happens because the users still do not familiar with the system and forget some steps of the system operations. Therefore, the researcher decided to explain the system operation repeatedly when they are free from their general works. Finally, the searching time continuously decrease in the next few weeks.

6.2 Recommendation

6.2.1 Classification and coding system

- From the study, we found that no matter how good a system can be developed, it is useless if it cannot support the user's requirement. System that is appropriate for a company has to be derived from the user's needs and company's objectives.

Therefore, in order to establish a system that can directly solve the problem, company has to select the suitable person to be the system user. The person who can classify and code product should be the one who deeply understand characteristics of product.

- The evaluation principle that was presented is an only one example that derived from the requirement of the case company. It is used to give an idea to other classification and coding developers. Although the developed system can provide advantages to the case company and any companies having similar circumstances, it may not suitable for those having different conditions. Every company should realize that there is universal system that can be used to solve any problems immediately. They have to adapt one of many systems into their own system depending on their own objectives and circumstances.

6.2.2 Product data management

- The developed computer system is a system that is established for only the case company. It is a base system that used to increase efficiency data management for the company. It does not directly concern standard time calculation but it is used to supply past product information to a person who needs it quickly and safely. Therefore in order to determine standard time of a product, the system has to be edited, added, or expanded in the future.