

# CHAPTER VIII

## CONCLUSIONS AND SUGGESTIONS

### 8.1 CONCLUSIONS

To establish quality cost system in the catering manufacturing process, there are various steps. By starting up with quality control system, the existing manufacturing did not provide any quality monitoring and control, as a result they did not understand the real cause of problems and some problems did not be solved. The problems occur again and again. As well as, most of action is corrective and came from top management, not bottom-up direction.

Establishing quality control, there were 11 questions for asking developer as shown in chapter V. That questions used for identifying performed operation, which has 7 inspection areas: Cutting, Layout/CNC, Bending, Assembly, Polishing and technical assembly as well as final inspection. Then, the customer specification and current condition were discussed and resulting the specification of product and processes were explored.

To develop the quality cost, quality control helps to understand problem indicators such as reject and repairs, and some performance indicators. Then, quality cost system could be analyzed.

Analyzing of quality cost system, there are major 4 stages:

- 1) Stage 1: Poor costing system of manufacturing activities: Activity analysis
- 2) Stage 2: Activity based cost setting up
- 3) Stage 3: Setting standard cost of product
- 4) Stage 4: Implementation

In stage 1, there are 4 minor steps, which each step explained how to use IDEF0 model to analyze manufacturing activity. The manufacturing process could be segregated into 6 activities: Front-line operation, Polishing, Technical assembly, Final operation and Mange rejects. These activities helped to settle up cost collection form and financial report.

In stage 2, there were 2 steps, which composed of how to identify cost accounting area and found out cost categories and element as well as cost driven analysis. The purpose of this stage was to set up cost collection form and report, which followed the accounting concepts, such as accounting number. In this stage, the rates of direct labor and overhead cost were allocated to section for counting the cost of activity.

The form, which had to change from current form, was Direct Cost Form, DCF and material requisition form, since they involve the cost of products. In addition, the cost of rejects was collected by using corrective action and preventive action form and their report.

For stage 3, standard cost of product was considered to find out problem areas such hidden cost, which was a major part of quality cost referred by ASQ. Finally, it is stage 4. The stage explains a bit about training program, which was required for implementation.

Surprisingly, the implementation in short term showed that the cost of quality system helps to find out large profits to the company by reducing cost of poor quality. Especially, the employees had pay attention about their work, as a result the top management had much more time for other management. The following were the example benefits that the company got from quality cost system.

- 1) Helps to clarify all of gray areas within the company.
- 2) The cost of quality is a tool to employee involvement.
- 3) Helps to improve systematically for quality
- 4) It is a tool for personal management and organization management

In short, implementing the quality cost system, the company could be managed the problems and important activities in catering manufacturing process with efficiency and effectively. Consequently, the quality improvement results showed that the quality cost was reduced by 12%, and return on investment is just a half of month, and IRR is around 142.95% a year.

## **8.2 SUGGESTIONS**

Nowadays, the quality cost is becoming an essential tool for many companies, since cost is the best performance measurement for several decade, through a plenty of quality cost studies from many researches. Especially, the quality costs was

determined referring to ISO: 10014 and BS6143. On the other hand, they did not mention in detail much, since their system was directly dependent on various manufacturing processes.

With the concept of quality cost, the system can be applied not only to manufacturing processes but also in purchasing, production planning, service and all departments. By using the cost concepts, their costs would change from traditional methods to activity-based costing leaning on the concepts of cost centers.

Identifying the cost of quality, there can be grouped into macro and micro costs of quality. Macro quality cost means analysis of overall company activity, while the micro quality cost that was similar to this paper means analysis of activity in department level. Micro quality cost is very useful for the company, which wants to improve their process efficiency and effectively. By using IDEF0, it is mostly used for this activity analysis of micro quality cost.

The example shows the application of quality cost.

- 1) Identifying the optimum level of investment, so called economics of quality.
- 2) Identifying the optimum specification for statistical control chart
- 3) Defining the pricing of product with highest profits
- 4) Reducing the cost of product through cost reduction
- 5) Re-organization of process to achieve optimum activity.
- 6) And etc.

However, like any quality improvement program, the most important thing of establishing a quality cost system was management responsibility and employee empowerment including employee involvement. Lacking of this proportion, the quality could not exist in the company.