

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

This chapter will present the conclusion of the development of KPIs for the Squid Snack Factory. In addition, some problems in implementing KPIs and recommendations are proposed for suggestion of the method in developing KPIs.

6.1 Conclusions

This thesis aims to develop the appropriate KPIs for production concerned with production planning, production, engineering, quality control and maintenance in the squid snacks factory. Due to the lack of system to control and monitor its production performance, it leads to the main problem as mis-planned production and ineffective management of production resource utilization.

Initially, the working team is set to enable the various inputs from cross-functional employees in the factory which potentially lead to the appropriate KPIs selection. The tasks for this team start with perform internal analysis to identify strengths and weaknesses of the factory and set objectives corresponding to strengths and weaknesses. Then, identify critical success factors corresponding to objectives. Next, all PIs that relate in production have been collected and functions in the factory have been identified. After that, the collected PIs will be selected in corresponding to the functions in the factory and the CSFs accordingly. These selected PIs are KPIs of the factory.

After the working team selected the appropriate KPIs for this factory, the team will calculate the performance value of each KPIs. Due to this factory did not collect some requirement data, set new report system must be performed. The new report systems that KPIs team set are:

1. Pre-raw material report
2. Daily production report

3. Quality control report
4. Machine activity report
5. Product transfer
6. Customer complained report
7. Delayed lot report

After setting the report system, the working team will collect data in the factory in order to calculate the value of each KPIs to be able to evaluate the performance of the company. The team agreed to calculate the performance value every 15 working days.

Once the performance values are calculated, a meeting is set amongst the working team to agree on the result. Then the result of the meeting is submitted to the management for approval.

Additionally, according to time constraint in this study, inventory turnover should not be analyzed in this stage due to there are too few data. Anyhow, inventory turnover is one of the critical KPIs and should be recorded for future analysis.

To verify each performance value that the team set, test for equal variances (F-test) have been performed. The purpose of the test is to compare the difference between data before implementing KPIs and after implementing KPIs. Consequently, collected data after implementing KPIs will be determined.

After perform test for equal variances, it is found that the performance value of all KPIs that the team set is stable except Value of product uncompleted on time and Number of delayed lot. Once stable KPIs are identified, the working team finds the target value of each KPIs. These target values are used as the standard for measuring and controlling performance in further.

6.2 Problems in Implementing KPIs

After the factory implementing KPIs, it faces with many problems as present bellows.

1. Problem with management

Due to the factory does not have the standard system before, it is difficult to change in management and difficult to make the factory manager understand the benefit when the factory has KPIs. The researcher has to take more time to make him understand and co-operate with this thesis.

2. Problem with staff

In the first step of implementing KPIs, staffs in shop floor think that it is not important to collect data and it is additional work that they do not have benefit from it. Top management is interested in improvement but he is accustomed with old operation. Therefore, the factory manager has to make them understand clearly about the benefit when the factory has KPIs and spend much more time to habituate with the coordination and communication systems that proposed.

Moreover, low educated workers are the important problem to implementing KPIs. Most of workers as operators in production line get primary school education degree. The leader and supervisor are promoted from operator level. Thus, they learn quite slowly about what the KPIs is but most of them pay attention to learn.

3. Problem with incorrect data

The factory does not operate collecting data system, therefore it make workers confuse to record data though check sheets were simply designed. Therefore, when the KPIs team calculates value of production factor, it is incorrect and unreliable. Thus, the team took time to develop the appropriate collecting data system and was collaborating with workers to make them understand the system.

6.3 Recommendations

The factory uses KPIs as a system of measurement for production performance. The results or target value of each KPIs can be used for benchmarking against competitors. More importantly they can also be used to set improvement targets and as a means of driving continual improvement. However, this factory should review the target value and set the better suitable target periodically under the situation fluctuated in the future.

According to unstable KPIs, the factory should track the causes in order to know why these KPIs are unstable and set the quality standard to control these KPIs in order to keep it stable.

In addition, the KPIs must be monitored on an ongoing basis. In conjunction with ongoing process, this factory should review the target value and set the better suitable target periodically under the situation fluctuated in the future.

The ongoing monitoring of performance in the factory should be carried out by the shop floor who is responsible for the control and measure of the performance of the factory.

According to the developing of KPIs, it is noticed that the working team decided developing only the potential KPIs that critical for the factory as it is an initial stage. After the KPIs are useful for the factory, the new KPIs should be developed to measure and control all aspect of performance in the production.

The value of each KPIs can be used as a tool for control and evaluation of past accomplishment as well as a tool to aid in planning future activities. Therefore, the factory should set KPIs as an important policy to make employees concern and understand what the benefit of KPIs is in their factory.