

## **CHAPTER V**

### **CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Conclusion**

This research has been conducted and written in relation to the implementation of Kobetsu Kaizen in Semiconductor Back-End Process. Throughout the duration of this case study, there is a lot of valuable knowledge and information from various aspects has been gained. Some of them are very useful and essential in order to improve the productivity and at the same time to reduce the defective rate of the product. In Malaysia, assembly processes are very common in manufacturing industry. The experiences from this case study will provide additional knowledge in term of managing and handling the assembly systems in future time.

From the case study the main aims are to reduce discrepancy of the product due to improper recording and operator negligence of the drop product. This study shows that this discrepancy issue cannot be taken easy. It has to be solved by using appropriate means. By using Kobetsu Kaizen method, source of the discrepancy have been identified

and also the long term counter measure have been introduced. Furthermore, a lot of other related factors can be benefit from this improvement tools technique.

Above all, this study has achieved its objective where the discrepancy rate has shown an improvement from as much as 3.00% just by reducing 0.65% by using discrepancy elimination techniques. There will be no doubt the effectiveness of Kobetsu Kaizen techniques. Therefore, manufactures should be more pay attention on this issue in order to bring their company ahead in this competitive world industry.

## **5.2 Recommendations**

The following recommendations are forwarded to the industry and related Semiconductor Manufacturing industries that are facing the same issue and looking forward to better yield productivity improvement in their day-to-day activity. There are many method and solutions can be recommended for this study in order to improving the productivity of a semiconductor assembly line.

A study of quality management and quality control should be recommended because product quality is always a key to achieve high productivity. The example of the concept is Total Quality Management. This concept will helps to improve the productivity, production process, production process and the important one is the quality of the product that produce.

Empowering the technicians and operators through training should be given due attention and conducted in sustainable manner to maximize the awareness of the productivity in eliminating the operators' mistake and improper recording. Especially, the operator should be trained to pinpoint small signs of troubles when ever anything out of the ordinary occurs and to be able to operate in the proper way.

Recommended that further research into the production problems and the others IE (Industrial Engineering) tools will helps to provide manufacturers with better opportunities to improve their productivity level.

The industries need to introduce Kaizen theme – the concept of continuous improvement. In this concept the major losses are identified and the plan is accomplished to eliminate them at the source.

The industries should implement the Overall Equipment Effectiveness as a performance indicator to track the efficiency of equipment in order to achieve higher target.

It is foreseeable to standardize the diverse maintenance activities from routine maintenance and inspection to repair which cannot be performed effectively if individuals are left to carry out in any way they like. It is indispensable for the industry to have comprehensive maintenance standards and manuals which concentrate and unify the past experience and technology of the industry.

Through implementing the Total Productive Maintenance the whole industry can be integrated together to one target for higher competitiveness in the dynamic environment. Hence, the industries should benefit from the concept of TPM to bring the employee toward the objectives of the industry. Implementing TPM in the various levels would help the industry to completely change the culture of its employee. Executing the TPM implementation in these industries should be given attention to be competitive in the global market.

Finally, this is another one recommendation for the industry sectors in Malaysia. The companies or factories should have cooperation with universities or other institutions in order to let the student do their studies or researches in the companies or factory. This will introduce the real environment and provide valuable experiences for the students. In fact, this is a chance for industry to be introduced with new techniques, software and technologies.