CHAPTER 6
CONCLUSION AND RECOMMENDATION

6.1 Conclusion

This research studied as a case study of colour paint factory. The objective is to reinventory management for make it optimal inventory level with limited area and minimize costs. A case study concerns the regular products of colour with the scope only in term of raw materials.

To achieve this objective, inventory control starts from historical data collection in two years, especially, data in demand usage. First of all, all raw materials are separated the important classification by using ABC analysis. It's classified into three categories: A, B, and C. A is the most important, B is normally, and C is less important.

Forecasting method use for forecast the demand usage in each raw material of each group. The demand forecasting process is done by using the time series decomposition in a method of multiplicative seasonal model and applied with casual model. All of Class A, B and C, it forecast in quarterly due to the limitation of data of expenditure construction.

To achieve optimal inventory level, inventory planning and managing materials are the main roles for implement it. It separated into two models that are fixed-order quantity for group A and B, and fixed-time period for group C. The results of fixed-order quantity model are the economic order quantity, reorder point, maximum stock, and safety stock level. And the results of fixed-time period model are the order quantity, safety stock level, and target stock level.

After receive the new planning for control raw materials in inventory, the problem from the limited storage area should be checked. It can check by the comparison between the whole area of storage space and the sum of raw materials area in each raw material type. The result is the sum of raw materials area is less than the whole storage area so it identities the storage space enough to overall of order quantities.

The evaluation is the last analysis to identify the performance measurement. In this study, total stocking costs are the main factors to measurement the performance. It is found that the stock level in inventory is decrease with cost saving reduce 41.40 percent of all raw materials.

Moreover, from a new management, the policies are set up with the appropriate for each group of raw materials. An organisation will order raw materials when raw materials level falls to reorder point and order in a fixed quantity in each time. For the rest of raw materials, an organisation will order raw materials when the time is reach, it means an organisation define the fixed range of time between orders.

When an organisation achieve the objective, the main advantage is the optimal level in inventory with the minimize cost. Moreover it can improve the knowledge of workers, and eliminate raw materials shortage and delivery delay. But, in the other hand, the disadvantage has to take a time to implement in term of workers.

6.1.1 Limitation

The limitations to implement this study are:

1. *Time:* It has a short time to collect the right data. Moreover, the exact results solution will occur when implement in a real time, it may take a few year to solve it.
2. *Data Collecting:* Due to an industry manage like a family, the data is not enough and difficult to find it out. From this reason, the inexact data may be occurred. Moreover, due to the data of construction expenditure shows in quarterly, an organisation has also to forecast in quarterly.

6.2 Recommendation for Future Study

The recommendations for future study are following:

1. Training course schedules should be set up in order to improve the efficiency of workers.
2. Job design and work method should be applied by put the right man into the right job in order to increase the standard of worker and receive the highest performance in each job.
3. Redesign the inventory layout to appropriate for the quantities of raw materials and easy to move in/out.

4. The material requirements planning (MRP) should be applied to reduce the time for calculation and the increase the performance to control the inventory system.