SUMMARY

YURI DALIAN. The Quality Analysis of Cap Stand Modification in PT Cakra Multi Sawit Mandiri. Supervised by ENDANG GUMBIRA SA’ID, MUHAMMAD FIRDAUS and ARIEF DARYANTO.

Based on the problems of palm oil cultivation and the technological development in Indonesia, each palm oil plantation in Indonesia compete to develop new technology, in order to gain optimum rate of production and meet the standard product quality, so that they can achieve sustainable business development.

PT Cakra Multi Sawit Mandiri is one of many palm oil plantation in Indonesia established in 2006. The company main operational activities are cultivation of palm oil such as nursery, planting, maintenance, harvesting, and research development. In the research and development division, the company specifically made innovation by modifying some tools for cultivating and harvesting, one of them is a tool used for castration known as cap stand (capit udang). PT Cakra Multi Sawit Mandiri plans to sell these cap stand to the market, but before that quality analysis is needed to support the sales.

Total Quality Management is one of the series analysis that can be used to determine the quality of a tool. Quality Function Deployment is one of the analysis that is used to measure the quality of a tool. The result of quality attribute will be processed using the house of quality matrix. House of quality is a series (matrix) that can describe and connect attributes that devided in two factors : Factor What’s and How. The processed data are obtained from 30 respondents, 2 experts, and 3 comparison companies which are PT London Sumatra Indonesia, PT Eastern Sumatra Indonesia and PT Socfin Indonesia.

Factor what’s is the factor that directly is related to customers wish and satisfaction. Factor what’s consists of attributes that are obtained through questionnaires. Author disseminated initial questionnaire and got 15 attributes from 30 respondents who work as a palm oil farmer. The 15 attributes are the tool price, production process, force output, technical life, ergonomics, power output, work time, tool availability, tool measurement, tool weight, ease of repairmen, applicable, manufacturing cost, tool durability and capacity. From that 15 attributes, Author conducted a validity test with SPSS Ver.16 to determine which attributes really identified as the most important attributes for consumers. The author using pearson product moment with 99% rate of significance in SPSS to identified the most important attributes for What’s factor between that 15 attributes. The result showed 8 most important attributes, they are technical life, ergonomics, power output, work time, applicable, ease of repairmen, tool durability and capacity.

From the study of what’s factor, PT Cakra Multi Sawit Mandiri Cap Stand Modification has an advantage in work time and capacity attributes. These attributes has a target value and ratio 5:1 from the three comparison companies. Ease of repairmen is an attribute that mostly chosen by the respondent and has high value from every companies.
How factor is a factor that is related to company needs. Experts gave 5 attributes as comparator, which are type of material, size, work mechanism, design, and additional component. In How factor, Cap Stand Modification has advantages from comparison company product, which type of material, size, design and work mechanism. While size attribute is the most chosen by every company. From all attributes, the design attribute is the most important. Matrix Correlation (House of Quality) showed that work time-design, power output-design, capacity-design, technical life-design, and tool durability-design had high correlation. This idea is based on fact that design attribute had high value, with a rate of importance of 265 and relativity rate value of 28.184. Correlation between attributes above is used to know what significantly correspond between attributes where the changes in one attribute value could affect another attribute value.

Company can compare the cap stand that has been used all this time with the modified cap stand by seeing the advantage provided. Thus the company will get the benefit from the quantity and quality of the product. In addition, the company can also know the strength and the weakness of competitor cap stand and use that information to determine the strategy to get into and survive in the market.

Company can also use the result above to develop modified cap stand that considered good enough to be sold in market. Some attributes with good value is expected to be maintained and developed by the company, while the attributes that is widely chosen by competitor is used as idea or input to develop a better product in the future.

Key words: Cap Stand, Castration, Palm Oil, Quality Function Deployment, House of Quality