

ABSTRACT

As human population grows, it was followed by the increasing in the need of food and it gave significant impact in demand and competition among food industries. From various kind of food that consumed by people, there are a view which was preferred considered from its price, benefit, and other kind of consideration. Thus, influence the rate of competition which has a higher demand. Eggs, especially egg which was called “telur ayam negeri” in Indonesia was chosen as one of the highest choice by Indonesian people. Factors supporting this fact are considered through its price, nutrition contained, and abundant stock which made chicken eggs as a wise choice.

PT Lanu Farm is one of many firm that chooses to do chicken egg farm business. It is categorized as a quite big firm since it's maximum capacity of chicken accomodized is up to 78.000 chickens. The defect rate of this firm is 1,308% slightly above the average. But, with that amount of production, little percentage would cost a lot. Thus, the necessity to surpress deffect rate are needed. Six sigma is one of any other tools which can be used to surpress defect rate product of a company, with 3,4 DPMO (Defect per Million Opportuniy) as a goal. It is a sure thing if Six sigma could be accomplished, it would cause great deal to the company. Decreasing defect rate using Six sigma method and DMAIC (Define, Measure, Analize, Improve, Control) as a tools.

The purpose of this research is to find out what is the rate of sales without defect product concluded and to find out what are the CTQ (Critical to Quality) factors as the main impact of defect product that ocure within the Six sigma method. After analysis and research was conducted, it is found that the amount of defect product within Lanu Farm is 3.265 level, with DPMO 30.684. DPMO and level of sigma was far from the six sigma target. Using fishbone diagram it was found that the main factors which affecting defect product was man, material, method, and environment.

Keywords : Six sigma, DMAIC (Define, Measure, Analyze, Improve, Control), DPMO (Defect per Million Opportunity), fishbone diagram.