ABSTRAK

PT. XYZ merupakan perusahaan yang bergerak dalam bidang industri manufaktur rumah lampu. Perusahaan ini mempunyai 3 tipe produksi diantaranya *Make to Stock, Make to Order* dan *Engineering to Order.* Jumlah variasi produk yang dihasilkan perusahaan ini terbilang cukup banyak, seperti, Garden Light Lta 30, dan LT Bollard E27 untuk penerangan taman, Street Light 250 dan Flood Lightt FL E40 untuk penerangan jalan, Down Light E27, TKO Lamp, BT T8 dan Down Light Gimbal E40 produk yang digunakan untuk penerangan rumah, perkantoran, restroan, dept.Store, pabrik dan apartemen. Berdasarkan survey yang telah dilakukan di departemen produksi PT. XYZ, Produk Rumah Lampu Down Light E27 merupakan produk yang paling banyak dipesan oleh customer dan paling banyak mengalami cacat pada produksinya, dari hasil survey didapat beberapa jenis cacat diantaranya cacat body reflector penyok, rangka body terlepas, sambungan kabel krustin terputus dan cacat gelembung atau hasil dari pengecatan *powder coating* yang kurang sempurna. Dari data cacat periode Maret 2019 – Oktober 2019 dapat diketahui cacat rangka body terlepas sebesar 51.0% merupakan cacat yang paling besar yang terjadi pada produk Down Light E27. Dari hasil perhitungan kapabilitas proses perusahaan selama bulan Maret - Oktober 2019 dapat diketahui nilai Cp = 1,25, Cpk = 0,75 dan level sigmanya = 3,75 dengan DPMO sebesar 12010. Diagram *fishbone* dapat diidentidikasi faktor-faktor penyebab yang menjadi penyebab cacat pada produk dan dari diagram CTQ dapat diketahui ada 5 faktor terbesar/ faktor penyebab cacat paling dominan. Dengan menggunakan metode FMEA dapat diperoleh faktor penyebab yang memiliki nilai RPN terbesar, sehingga dapat diusulkan rekomendasi aksi yang dapat dilakukan untuk mengeliminasi faktor dominan penyebab cacat rangka body terlepas pada produk Rumah Lampu Down Light E27.

Kata kunci: Cacat Produk, Down Light, Kualitas, *Six Sigma*, FMEA

ABSTRACT

PT. XYZ is a company that is engaged in the lamp housing manufacturing industry. This company has 3 types of production including Make to Stock, Make to Order and Engineering to Order. The number of product variations produced by this company is quite large, such as, Garden Light Lta 30, and LT Bollard E27 for garden lighting, Street Light 250 and Flood Lightt FL E40 for street lighting, Down Light E27, TKO Lamp, BT T8 and Down Light. Gimbal E40 products used for lighting homes, offices, restaurants, department stores, factories and apartments. Based on a survey that has been conducted in the production department of PT. XYZ, Down Light E27 Home Product is the most ordered product by customers and has the most defects in its production, from the survey results obtained several types of defects including defective body reflector dents, loose body frames, broken crustine cable connections and bubble defects or results. from painting powder coating that is less than perfect. From the defect data for the period March 2019 - October 2019, it can be seen that 51.0% of the defects in the body frame were the biggest defect that occurred in Down Light E27 products. From the results of the calculation of the company's process capability during March - October 2019, it can be seen that the value of Cp = 1.25, Cpk = 0.75 and the sigm level = 3.75 with a DPMO of 12010.The fishbone diagram can identify the factors causing the defect on the product and from the CTQ diagram it can be seen that there are 5 biggest factors / the most dominant cause of defects. By using the FMEA method, the causative factors that have the largest RPN value can be obtained, so that it can be proposed recommendations for actions that can be taken to eliminate the dominant factors causing body frame defects apart from the E27 Down Light Lamp House product.

Keywords: Product Defects, Down Light, Quality, Six Sigma, FMEA