

## ABSTRACT

PT. XYZ is a company engaged in the field of Demineralized Bottled Water (AMDK-DM), a problem currently being faced by PT. XYZ at this time is the existence of defective and damaged products which result in complaints from consumers. In manufacturing companies such as PT. XYZ in this study the theme of the problem is in the production of 220 ml bottled drinking water, the problems that are often encountered include product defects including cup defects, lid defects, volume defects, machine defects which result in losses for the company. In this study the authors used the method used for quality control, namely Six Sigma. According to Gygi, six sigma aims to minimize defects and maximize the added value of a product.

The purpose of research at PT. XYZ is to identify production problems of PT. XYZ and find out the main factors causing failure (reject) in the production process of 220ml bottled bottled water products at PT. XYZ, analyzing the level of defects and the sigma level of the production of 220ml bottled drinking water and knowing several causal factors for the occurrence of a 220ml cup bottled defect product. From the results of the analysis using the six sigma method, the attribute defects with the DPMO sigma reach 5263.2. Meanwhile, the sigma level reached 0.69.

**Keywords: Disability, Six Sigma, Cup 220ml**

## ABSTRAK

PT. XYZ merupakan perusahaan yang bergerak di bidang Air Minum Dalam Kemasan Demineralisasi (AMDK-DM), masalah yang saat ini dihadapi oleh PT. XYZ saat ini adalah adanya produk cacat dan rusak yang mengakibatkan komplain dari konsumen. Didalam perusahaan manufaktur seperti PT.XYZ di penelitian ini tema permasalahannya di produksi AMDK cup 220ml, masalah yang sering dihadapi diantaranya kecacatan produk meliputi cacat cup, cacat lid, cacat volume, cacat mesin yang mengakibatkan kerugian bagi perusahaan. Di penelitian ini penulis menggunakan metode yang digunakan untuk pengendalian kualitas yaitu *Six Sigma*. Menurut Gygi, *six sigma* bertujuan meminimasi cacat dan memaksimalkan nilai tambah dari suatu produk.

Tujuan dari penelitian di PT. XYZ adalah mengidentifikasi masalah produksi PT. XYZ dan mengetahui faktor utama penyebab kegagalan (*reject*) dalam proses produksi produk AMDK cup 220ml di PT. XYZ, menganalisa tingkat cacat dan tingkat *level sigma* produksi AMDK cup 220ml dan Mengetahui beberapa faktor sebab akibat terjadinya produk *defact* AMDK cup 220ml. Dari Hasil analisa dengan metode six sigma cacat atribut dengan DPMO sigmanya mencapai 5263,2. Sedangkan level sigma mencapai 0,69.

**Kata Kunci : Cacat, Six Sigma, Cup 220ml**