

## ABSTRAK

CV Griya Grafika merupakan perusahaan yang memproduksi stopmap plastik di Kota Semarang. Dalam proses produksi stopmap terdapat ketidaksesuaian di rantai produksi yang dikarenakan kecacatan produk. Maka, perlu dilakukan penelitian untuk mengidentifikasi faktor-faktor penyebab kecacatan dari produksi stopmap di CV Griya Grafika untuk mengurangi jumlah kecacatan produk stopmap di CV Griya Grafika. Dalam penelitian ini pendekatan yang digunakan adalah *Fault Tree Analysis* (FTA), *Failure Mode and Effect Anlysis* (FMEA), dan Diagram Ishikawa.

Sebelum memulai penelitian dilakukan perhitungan data historis perusahaan tahun 2022, didapatkan hasil perhitungan proporsi rata-rata produk cacat sebesar 12,7%. Dimana kecacatan tersebut melebihi toleransi kecacatan perusahaan yang bernilai 10%. Dilanjutkan dengan pendekatan FTA didapatkan hasil akar permasalahan/penyebab kecacatan di rantai produksi. Kemudian setelah didapatkan penyebab kecacatan tersebut, maka dilanjutkan dengan metode FMEA untuk mendapatkan ranking prioritas kecacatan. Terdapat 12 ranking dengan RPN tertinggi senilai 150 dan RPN terendah senilai 8. Dari urutan ranking prioritas tersebut dilanjutkan dengan pembuatan diagram Ishikawa untuk menentukan usulan perbaikan yang diterapkan di CV Griya Grafika. Setelah perbaikan yang dilakukan, didapatkan hasil produksi berjumlah 920 dengan kecacatan sejumlah 86.

Data produksi setelah perbaikan kemudian dianalisis/dilakukan hitungan proporsi rata-rata produk cacat. Didapatkan hasil perhitungan data terbaru dengan hasil kecacatan selama satu bulan (bulan Mei 2023) sebesar 9,3% . Jadi, bisa dikatakan bahwa usulan perbaikan yang diberikan kepada CV Griya Grafika berhasil untuk mengatasi ketidaksesuaian di rantai produksi stopmap. Hal ini dibuktikan dengan jumlah penurunan persentase kecacatan sebesar 3,4%.

**Kata kunci:** Cacat, *Fault Tree Analysis*, *Failure Mode and Effect Anlysis*, Diagram Ishikawa.

**Proposed Improvement Of Stopmap Product Quality  
In Order To Reduce Defect Products  
(Case Study on CV Griya Grafika)**

**ABSTRACT**

*CV Griya Graphic is a company that produces plastic stop maps in the city of Semarang. In the stopmap production process there are discrepancies on the production floor due to product defects. So, it is necessary to do research to identify the factors that cause defects in the production of stopmaps at CV Griya Graphic to reduce the number of defects in the stopmap products at CV Griya Graphic. In this research, the approach used is Fault Tree Analysis (FTA), Failure Mode and Effect Analysis (FMEA), and Ishikawa Diagrams.*

*Before starting the research, a calculation of the company's historical data for 2022 was carried out, the results of which calculated the average proportion of defective products was 12.7%. Where the disability exceeds the company's disability tolerance which is worth 10%. Followed by the FTA approach, the results of the root causes/causes of defects were obtained on the production floor. Then after obtaining the cause of the disability, then proceed with the FMEA method to get a priority ranking of the disability. There are 12 rankings with the highest RPN worth 150 and the lowest RPN worth 8. From the order of priority rankings, it is followed by making an Ishikawa diagram to determine proposed improvements to be implemented at CV Griya Graphic. After the repairs were carried out, the production results were 920 with 86 defects.*

*Production data after repairs are then analyzed/counted for the average proportion of defective products. The latest data calculation results obtained with a disability for one month (May 2023) of 9.3%. So, it can be said that the proposed improvements given to CV Griya Graphic were successful in overcoming discrepancies on the stopmap production floor. This is evidenced by the total reduction in the percentage of disability of 3.4%.*

**Keywords:** *Defects, Fault Tree Analysis, Failure Mode and Effect Analysis, Ishikawa Diagram.*