

INTISARI

Komplain merupakan pertanda bahwa kualitas produk yang dibuat oleh perusahaan tidak sesuai dengan ekspektasi konsumen. Komplain yang muncul di PT Chandra Asri Petrochemical merupakan akibat dari kualitas produk tidak sesuai keinginan konsumen (*wrong quality of design*) meskipun kualitas produk sesuai dengan resep (*good conformance quality*).

Alat *Quality Function Deployment* (QFD) digunakan mengumpulkan informasi dari konsumen sehingga dihasilkan input untuk pengembangan produk, dimana proses pengembangan produk bisa ditingkatkan lagi performanya dengan mencegah segala potensi kegagalan di proses produksi dengan alat *Failure Mode and Effect Analysis* (FMEA) dikarenakan kegagalan yang muncul di proses produksi secara langsung akan mempengaruhi kualitas produk

Penelitian dilakukan melalui tinjauan pustaka, observasi catatan komplain, wawancara langsung kepada tim TSPD (yang bertugas mengunjungi konsumen) dan melakukan *Focus Group Discussion* (FGD) dengan *task force* di *manufacturing*.

Kesimpulan dari penelitian ini adalah ada 2 dari 7 karakteristik produk perlu diperbaiki yaitu warna produk kurang putih dan muncul *gel defect* saat produk diproses). Ada 6 dari 7 kebutuhan teknis yang menjadi input bagi FMEA yaitu sistem katalis, sistem transfer, sistem ekstruder, perubahan Quality Control (QC), adanya material asing, dan perbaikan performa antioksidan. 6 kebutuhan teknis selanjutnya dibagi menjadi 13 sub proses dimana lima potensi kegagalan tertinggi berasal dari standarisasi catalyst tube, metode QC tidak tepat, alat untuk QC tidak tepat, tipe AO tidak tepat, dan dosis AO belum optimal.

Kata kunci: QFD, FMEA, pengembangan produk, industri manufaktur

ABSTRACT

Complaint is a sign that product quality made by manufacturing industry does not comply with customr expectation. Customer complaints received by Chandra Asri Petrochemical are mostly due to wrong quality of design because returned good are still on spec (good conformance quality).

Quality Function Deployment (QFD) is used to compile and analyze information collected to customer regarding product characteristic so that input for product development are well received. Product development process has higher performance level by combining QFD with Failure Mode and Effect Analysis (FMEA). FMEA is used to analyze failure consequences by identification of potensial failure risk (severity, occurrence, and detection). Failure in process cause direct harm to product quality.

Research are conducted by literature study, observation of complaint history, expert interview with TSPD team (main job is handling customer) and conduct Focus Group Discussion (FGD) with task force team in manufacturing plant.

Conclusion of researchs are only 2 of 7 product characteristic which need improvements such as product color and gel defect appearances during processing. There are 6 of 7 technical requirements which become input to FMEA which are catalyst system, transfer system, extruder system, catalyst system, Quality Control (QC) system, foreign material, dan antioxidant additive performance. 6 technical requirements are divided later into 13 sub-processes where 5 highest failure potential are standardization of catalyst tubes, improper QC methods, improper tools for QC, incorrect type of AO, and AO dosage is not optimal.

Keywords: QFD, FMEA, product development, manufacturing industry