Risk Management Measurement Model in Small and Medium Industries

Isnaini Rodiyah¹, Wiwik Sulistiyowati², Ika Ratna Indra Astutik³

^{1,2,3}Universitas Muhammadiyah Sidoarjo Sidoarjo, Indonesia

isnajusuf@gmail.com ¹, wiwik@umsida.ac.id ², ikaratna@umsida.ac.id ³

Abstract

The contribution of Small and Medium Industries (MSI's) is very large for aspects of the economy in Indonesia. To increase the competitiveness of their products, the small and medium industries must improve the quality of their products. One of the things that can be done in addition to measuring the performance, by measuring the risk along the process can minimize failures and quality costs. This research method is to use a qualitative approach. The purpose of this study is to design a risk management measurement model based on the concept of ISO 31000 and Design Failure Mode and Effect Analysis (DFMEA) in small and medium industries. The model provides an assessment tool for SMI's to know their current risk management level. The result this research is risk management measurement model to assess a risk management process in their process business. Key Activities a risk management based on ISO 31000 and DFMEA concept approach are 1) Risk identification; (2) risk analysis; and (3) risk evaluation and (4) Risk Treatment. The risk management measurement model following of PDCA cycles and ISO 31000 framework. The model can also be used as a reference for improving this process since it sets how a risk management process should be performed and reduce.

Keywords

Design Failure Mode and Effect Analysis (DFMEA), ISO 31000, Measurement, Risk Management, Small Medium and Industry.

Biographies

Isnaini Rodiyah is a lecturer at State Administration Majoring, Faculty of Business, Law, and Social Science Faculty, Universitas Muhammadiyah Sidoarjo, Indonesia. Her areas of research focus on public policy.

Wiwik Sulistiyowati is a lecturer at Industrial Engineering Majoring, Science and Technology Faculty, Universitas Muhammadiyah Sidoarjo, Indonesia. She received a Master's Degree in the Industrial Engineering Department from ITS. Her areas of research focus on Risk Management on Quality Improvement Project.

Ika Ratna Indra Astutik is a lecturer at Informatics Majoring, Science and Technology Faculty, Universitas Muhammadiyah Sidoarjo, Indonesia. Her areas of research focus on artificial intelligence, web design, data mining.