

# **PENGELOLAAN RISIKO PADA PROSES BISNIS PERCETAKAN DENGANMENGUNAKAN METODE *FAILURE MODES AND EFFECTS ANALYSIS (FMEA)* (Studi Kasus di PT. Masscom Graphy Semarang)**

**Nafisa Aulia Fahmi, Aries Susanty**

Program Studi Teknik Industri  
Fakultas Teknik – Universitas Diponegoro  
JL. Prof. Soedarto, SH Tembalang Semarang 50239  
Email: [nafizh.naf@gmail.com](mailto:nafizh.naf@gmail.com); [ariessusanty@gmail.com](mailto:ariessusanty@gmail.com)

## **Abstrak**

Tantangan industri pada era global adalah menjaga aliran barang, aliran informasi, serta aliran keuangan dari supplier sampai pelanggan berjalan dengan lancar. Terdapat risiko yang mungkin timbul dari setiap aktivitas tersebut. PT. Masscom Graphy Semarang (Masscom) merupakan perusahaan percetakan yang memiliki 2 divisi, yaitu divisi cetak Koran dan divisi cetak Umum. Pada divisi cetak umum terdapat keterlambatan dalam pemenuhan bahan baku sehingga menyebabkan aktivitas di perusahaan terhambat. Diperlukan manajemen risiko rantai pasok agar ketiga aliran dapat berjalan lancar.

Berdasarkan pendekatan model *Supply Chain Operations Reference (SCOR)*, terdapat 44 aktivitas dalam proses bisnis divisi cetak umum. Secara berurutan pada proses plan, source, make, deliver, dan return terdapat 11, 9, 13, 4, dan 2 aktivitas. Identifikasi risiko dilakukan berdasarkan aktivitas pada model SCOR. Penilaian risiko menggunakan Metode *Failure Modes and Effects Analysis (FMEA)*. Penilaian risiko menilai *severity (S)*, *occurrence (O)*, *Detection(D)* kemudian menghitung nilai *Risk Priority Number (RPN)*. Nilai RPN tertinggi adalah 180 terdapat pada proses *deliver* dan terendah 8 yaitu pada proses *make*. Agen risiko yang menyebabkan sebagian besar kejadian risiko di Masscom adalah kesalahan manusia, revisi order dari pelanggan. Strategi mitigasi risiko yang diusulkan adalah pengelolaan Sumber Daya Manusia, meningkatkan hubungan dengan *supplier*, meningkatkan hubungan dengan pelanggan, dan pengelolaan asset perusahaan.

**Kata kunci:** FMEA, manajemen risiko, SCOR, supply chain

## **Abstract**

*In the era of globalization industrial challenges is to maintain the flow of goods, information flow, and financial flow from supplier to customers as well as. There is a risk that may arise from any activity. PT. Masscom Graphy Semarang (Masscom) is a printing company who have 2 divisions, namely Divisi Cetak Koran and Divisi Cetak Umum. In Divisi Cetak Umum there are delay in fulfillment raw materials that make company activity hampered. Supply Chain Risk Management is required in order to make these three flows are going well.*

*Based on Supply Chain Operations Reference(SCOR) Model approach, there were 44 business activity process in Divisi Cetak Umum. Sequentially on a plan, source, make, deliver, and return there were 11, 9, 1, 4, and 2 activities. Risk identification is carried out based on activity at SCOR Model. Risk assessment using Failure Modes and Effects Analysis (FMEA) method. Risk assessment assessing severity (S), occurrence(O), detection(D) and then calculating the Risk priority Number (RPN). The value of the highest RPN is 180 in process of deliver and the lowest in process of make. Risk agent that cause most of risk in Masscom is human error, revision of orders from customers. The proposed risk mitigation strategy is manage the human resources, improve relationships with suppliers, improve relationships with customers, and manage the asset of the company.*

**Key words:** FMEA, risk management, SCOR, supply chain



