

**CLASSIFICATION OF OPERATIONAL MANAGEMENT QUALITY OF UMKM IN
BANTUL DISTRICT USING SUPPORT VECTOR MACHINE CLASSIFICATION
METHOD**

MUHAMMAD FAKHRI FAKHRURROZI

Data Science Study Program, Faculty of Science & Technology

University of Technology Yogyakarta

Jl. Ringroad Utara Jombor Sleman Yogyakarta

Email: fahrirozi90@gmail.com

ABSTRACT

Micro, Small and Medium Enterprises (MSMEs) are the main pillars of the Indonesian economy, contributing 61.07% of the national GDP and absorbing 97% of the workforce. However, many MSMEs still face challenges in quality operational management. This study aims to classify the quality of operational management of MSMEs in Bantul Regency using the Support Vector Machine (SVM) method. SVM was chosen because of its superior performance in various previous classification studies. Data from the Bantul Cooperative and MSME Service was used to train and test the model. The results showed an accuracy of 99.58% on the training data and 99.44% on the testing data, indicating that the model can classify well. Factors such as availability of goods, knowledge of target markets and product advantages, use of the Order Management System, business focus, and knowledge of customers, as well as contribution as the main source of income, proved significant in determining the quality of operational management of MSMEs. With this model, it is hoped that MSME actors can improve the quality of their businesses to compete at the national and international levels.

Keywords: *Classification, Quality of Operational Management, MSMEs, Support Vector Machine.*