

## **A Machine Learning Decision Support Framework for Industrial Engineering Purposes**

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**Abstract :** Data is currently one of the most critical and influential emerging technologies. However, the true potential of data is yet to be exploited since, currently, about 1% of generated data are ever actually analyzed for value creation. There is a data gap where data is not explored due to the lack of data analytics infrastructure and the required data analytics skills. This study developed a decision support framework for data analytics by following Jabareen's framework development methodology. The study focused on machine learning algorithms, which is a subset of data analytics. The developed framework is designed to assist data analysts with little experience, in choosing the appropriate machine learning algorithm given the purpose of their application.

**Keywords :** Data analytics, Industrial engineering, Machine learning, Value creation

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