# Data Mining Process Integration in Sales Process

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## Abstract

Information Technology (IT) development allows organizations of different type create and store enormous amounts of data. This process has stimulated cooperation of several disciplines –IT, marketing and statistics to fully utilize stored data in the organization. Organizations that can make use of so called "Big Data" tend to create competitive advantage. The aim of the research is to develop segmentation model without using programming languages for statistics that can be integrated into sales process. The result of research show that without advanced IT and/or statistical knowledge one can analyze "Big Data" and create models that can be transferred and implemented in sales or other business processes.

*Keywords*: data mining, sales process, big data, segmentation, data analytics, predictive modelling.

## Introduction

To gain competitive advantage organizations must utilize to full extent available resources. By analyzing available data that often is stored for other purposes than sales improvement one can identify relationships between different variables and predict target values. It can be done in several ways. One is to use specific programming languages for statistics like R or Python. Another way is to use Graphical User Interface (GUI) type of software like SPSS Modeler or RapidMiner that does not require programming skills.

## Methodology of Research

The aim of the research is to create segmentation model by using GUI type of software that can be integrated into sales process. CRISP-DM methodology is used to conduct research. The object of research is organization sales process. The subject of research is data mining process. The research includes case of an organization when segmentation model is created. The analysis and literature review methods have been used in research.

## Findings/Results

Results of the research show that it is possible to developed segmentation model that have positive impact on organizations financial performance. It can be achieved with GUI analytical software RapidMiner Studio without programming skills. Outcome of the segmentation model is possible to transfer to Structured Query Language and create predicting variable that can be integrated into core organizations system. This value can be used further in sales process when defining organizations targets.

## Conclusions

The result of research shows that data stored in organizations can be used directly or in derived format to improve revenue stream. By using CRISP DM methodology and GUI analytical software RapidMiner Studio it is possible to analyze large amounts of data (also called "Big Data") and create segmentation model. Predictive model has the same outcome as segmentation model. The results of research show that it is possible to replicate process to create different models and improve other business processes. Business knowledge is needed to define target values and describe variables that can be evaluated for segmentation.

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