

Anfertigen eines CAT bzw. PIKE

Kann ... // Algorithmus x // exact ... // (Kunden)-Problem ... berechnen / lösen?

Yes, the Analysis and the model built can increase the sales and help improve the business

Big Data / Data Mining / Data Science Kernaussage:

[Welcher Frage hat für die Lösung des Kunden / Auftraggeber die größte Bedeutung?]:

The growth of supermarkets in most populated cities are increasing and market competitions are also high. The major objective of these Supermarkets is to sell products and earn the highest profits possible. To implement the business strategy we need the analysis on different factors which can increase the quality and quantity of sales / purchase. Hence the aim of the project is to study the sales and factors affecting the business and hence increasing the profit for the client.

(I) Intervention:

(Bibliotheken- und Algorithmen-Auswahl, ... z.B. pandas für Finanzdaten ...)

[Welche Berechnung erwäge ich vornehmlich?]:

For data visualization and analysis using tableau. For the data preprocessing and building the model I have used KNIME Analytics Platform.

(K) Kontrollintervention

(falls erforderlich: Bibliotheken- und Algorithmen-Auswahl ... z.B. scikit-learn für Finanzdaten ...)

[Was ist die andere Möglichkeit?]:

The analysis and model building can be done in many different ways

(E) Ergebnismaß (Zielgröße(n)) – Die Evidence

[Was möchte ich / der Kunde erreichen? Z.B. Prädiktor oder Klassifikator erstellen ...]:

Relation of customers with SuperMarket.

Payment methods used in supermarket.

Products relation with quantities.

Types of product and their sales.

Products and their ratings.

Die Suche nach der besten Evidenz

1. Problem

To see patterns in shopping behaviour and spending/purchasing habits so as to increase the sales and customer traffic in the stores to make more profit.

2. Definition einer wichtigen suchbaren Frage

What are the factors which affect the sales in the supermarket and what strategy can be applied to increase customer traffic. How can we build customer loyalty. And in what way we can serve our customer so as to increase our ratings.

3. Auswahl der wahrscheinlichsten Quelle für diese Evidenz

After training, the performance of the model is tested on a selection of the existing test data and evaluated

4. Erstellung einer Suchstrategie

Different algorithms and methods can be used but here I have created 3 models mainly linear regression, Simple Regression Tree learner and Random Forest Tree and compared the results and scores.

5. Zusammenstellung der Evidenz ausbeute

Simple linear regression, decision tree (regression) and Random Forest Tree is built on the supermarket sales data set which contains 1000 instances and 17 attributes.

6. Anwendung der Evidenz

I have built three models out of which Decision tree gives the accuracy of 99.7%