



Aalto-yliopisto
Perustieteiden
korkeakoulu

Data Envelopment Analysis in Retail

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12.6.2020

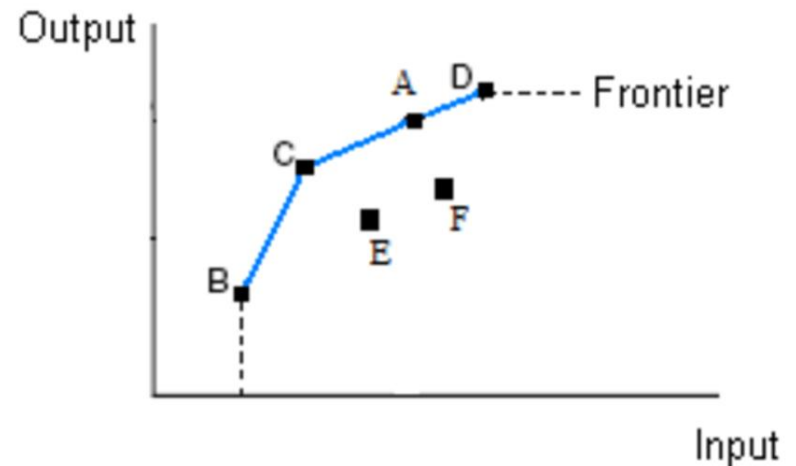
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Työn saa tallentaa ja julkistaa Aalto-yliopiston avoimilla verkkosivuilla. Muilta osin kaikki oikeudet pidätetään.

Background

- The demand for operating businesses more efficiently is increasing
- Management does not necessarily know how to address the problem



Background: Recognizing best practices

- Data Envelopment Analysis (DEA) can be used to recognize the most efficient operating units:
 - Management knows what to do in order to increase production efficiency
 - The company is managing its business more efficiently
 - An increase in profits can be expected

Objective

- Conduct a case study on retail companies using DEA
- Recognize the most efficient businesses
- Study the causal relations between chosen inputs and outputs

Limits and Restrictions

- The case study is conducted solely on Scandinavian retail companies
- Decision making units (= companies) with incomplete input or output data are discarded

Methods and Tools

- The data set is exported from Orbis database
- Excel for preparing the data set
- R is used for the case study
- Data Envelopment Analysis (DEA)
 - Package *rDEA* and/or *Benchmarking*

Schedule

- 4/20: Data cleaning and choosing the topic
- 5/20: Sources and methods
- 6/2020: Topic presentation
- 7-8/2020: Writing and calculations
- 9/2020: Final presentation