Master thesis

on the topic:

Decision support for selecting a demand forecasting method

Problem definition:
The existing literature suggests numerous different forecasting methods. In practice, the selection of an adequate forecasting method not only involves statistical performance measures such as reducing the forecast error, but also other criteria: A decision maker may be confronted with time constraints, limited data availability or trade-offs between frequent forecast updates and costs. To support the forecaster in this selection process, the motivation of this master thesis is to develop a decision support system that suggests the adequate forecasting technique. To achieve this, a framework based on the existing literature and expert interviews in this field will be developed. A performance measure comprising these criteria in addition to statistics will be identified and tested on a company’s dataset.

Tasks:
- Define a set of criteria for the selection of forecasting techniques based on the existing literature
- Evaluate forecasting methods with regard to the set of criteria
- Analyze the importance of each criteria to calculate performance measures
- Develop a comprehensive decision support system
- Apply the model to data and evaluate the results

Requirements:
The thesis is for Master students of the study-program TUM-BWL. Qualified candidates have a major in Supply Chain Management. The ability to work independently as well as analytical skills are required. The thesis should be written in English.

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Advisor: Anna-Lena Beutel (anna.beutel@tum.de)

For further information and selected literature on the topic, contact Anna-Lena Beutel in room 1516. Please send your application together with your curriculum vitae and transcripts of records by email.