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Inventory Prediction for Hotels Using Machine Learning

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Abstract

To run a successful business all the processes within a business should be managed efficiently and some more than the others. One such process is inventory management. In the hotel industry this important as having the right amount of inventory items plays a major role in satisfying the customers. Inventory management has is done mainly by using conventional techniques such as EOQ, periodic review policy and optional replacement policy.

This project is mainly focused on developing a model using machine learning which will help in efficiently managing this process by predicting the amount inventory required for next month. To accomplish this a dataset of closing inventory values was obtained from a reputed hotel in Sri Lanka. Using neural networks and SVR a hybrid model was developed to accomplish this task.

Subject descriptors
Machine learning approaches, neural networks, Time series analysis, Statistical paradigms

Keywords
Machine learning, neural networks