

## **ABSTRACT**

Managing an inventory is often a significant part of the operating activities for a retail company. Thus, appropriate inventory management and replenishment strategies should be chosen to support achieving the business goals set by the company.

The objective of this thesis is to analyze the current replenishment policy in Tallink Logistic Center and to suggest the improvement of the replenishment strategy through data driven economic order quantity model (EOQ). The improved replenishment strategy is created for a sample group of mild alcohol category products with a purpose to extend the same model later for all inventory items. The main goal of creating and proposing the implementation of EOQ based replenishment model is to support the purchase decision-making processes, optimize total inventory levels and thus minimize overall inventory costs. The subject of current thesis is topical due to reason, that the replenishment strategy in Tallink Logistic Center has not been framed with any determined model. However, the necessity for more concrete replenishment decision support has been identified.

The chosen research method is an embedded case study. The qualitative part is formed by three interviews to objectively map the current replenishment policy and the quantitative part by data analysis based on EOQ model.

From the results, it can be concluded, that the implementation of proposed replenishment strategy model should be evaluated further by Tallink Group, as the analysis proved based on the sample group of items that implementing suggested replenishment policy would result in decision support for replenishment specialists, optimized inventory levels and decreased overall inventory costs.