

Abstract

“Logistical efficiency and new listings”

Area

Logistics, warehouse logistics

Keywords

Logistics, value management, supply chain management, new listings, product range expansion, product range optimisation, efficiency, order picking

Study/project

Project, part of the “Retail Management Projects” module

Starting point/project assignment/objective

From the view of Sales, product range expansions are a proven method of generating sales. Effects associated with listing new complementary products in particular, which affect logistical productivity, are often given too little consideration. This raises the question of the effects of this development, especially in relation to logistics (order picking).



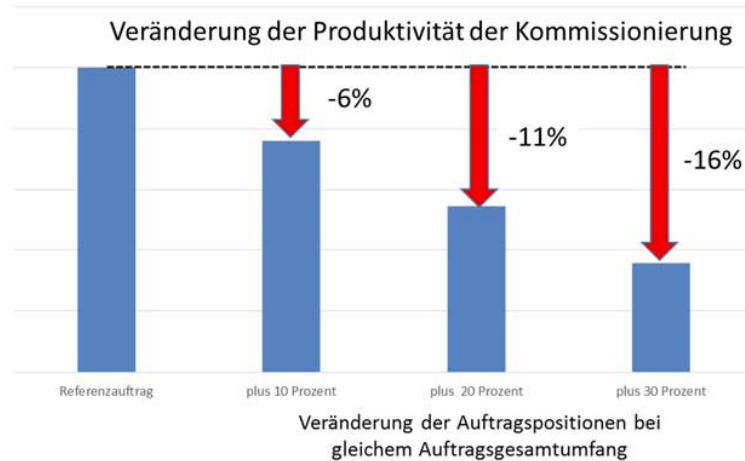
Those responsible for logistics repeatedly mention diminishing order-picking efficiency. Therefore, this assignment was to review and, if possible, quantify this.

Procedure

- Process analysis
- Quantification of the process elements
- Creation of a mathematical model, giving consideration to the expansion of the product range through complementary products
- Calculation of the resulting effects
- Impact on logistics (order picking)

Results/findings

Giving consideration to the particular significance of trip times in order picking (up to 60%) and the tendency for distances to increase when a product range is expanded through the addition of complementary products, the associated “atomisation” of picks per product, there is a 5% reduction in order-picking productivity if the product range is expanded by 10%. It can be assumed from this that the actual efficiency loss is really much higher, as synergy effects through picking larger quantities of a product could not be considered, nor the learning effects that can no longer be realised in this form.



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