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# An Overview of Optimization Models and Technological Trends of Logistics in the Retail Sector

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## Abstract

Recently, the e-commerce market has grown rapidly. For example, e-commerce generated sales of USD 504 billion in the US from January 1, 2020, to July 1, 2020, representing an increase of 11.58% over the same period in 2019. This growth has forced the retail industry has had to adopt strategies to become more efficient. About 40% of many companies 'available time is devoted to logistics. Because these activities are consuming a disproportionate share of many companies' time, logistics is a prime topic of interest. In this context, this study aims to present an overview of optimization models and technological trends in logistics in the retail sector. Findings show that retail logistics has focused on reducing costs, time usage, and inventories while increasing transport capacity. Optimization in logistics has focused on using mathematical algorithms such as genetic algorithms with different variants, and simulation has supported testing optimization proposals. Finally, big data, omnichannel, and e-commerce continue to grow, especially in the retail sector where it has grown considerably. © 2022, Springer Nature Switzerland AG.

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