

8<sup>th</sup> International Strategic Management Conference

## Strategic planning of layout of the distribution center: an approach for fruits and vegetables hall

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### Abstract

The layout design of distribution center should be considered as a smart decision system that includes the number of customers, demand forecasting, product groups, condition of product conservation, warehousing, transportation management etc. Decision support systems are used on a lot of stages of the layout of the distribution center which is handled as a whole. In this study, the layout of the distribution center is investigated as strategically and recommendations are made for the model that will be developed for the layout of the fruits and vegetables halls. The study is conducted in two phases. In the first phase of the study, supply chain network and specifically distribution centers' literature is examined and classified. In the second phase, assumptions of the allocation models for layout design of fruits and vegetables halls and their prospective objective functions are tried to be explained considering the fruit and vegetable halls as a kind of urban distribution centers.

*Keywords: Distribution center, Fruits and Vegetables Hall, Strategic Planning, Layout, Allocation,*

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### 1. Introduction

Survival of corporations, in the global market, is possible with providing of dynamic market demands with the minimal cost and within the required time by effective supply chain management. Corporations want to increase their profitability and efficiency addition to providing of market demands with the minimums cost and within the required time. Increasing competition, environment forces the companies to create more effective supply chains basing on management and engineering.

The role of distribution centers increases turnover and profit and also brings competitiveness for the firm by providing customer needs in a high level. Supply chain is a network of suppliers that works to deliver the raw materials, work-in-processes and finished products to production centers, warehouses, distribution centers, and

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