Outbound and Delivery Cost

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Lesson 01 - Picking

Outbound and delivery cost. Lesson One picking a survey of logistic costs in Europe identified the costs of warehousing as being 24% of total logistics costs. A similar study in the US found warehousing costs at 22% being close to the European figure. The considering that half of the total operation expense of a warehouse is spent by order picking process and as half of picking process is travel time electronic business for a case study at a distributor in the electronic device business segment. The quantitative evaluation showed an overall improvement potential of more than 27% by applying a different picking sequence optimization. So let's dive right into it and let me give you some background on the different options you can apply. According to several studies, the routing of pickers is mainly improved by using heuristics. The six most common heuristics that are used to determine the sequence of picks within a batch compromise the S shape method, the return method, midpoint method, largest gap and combined or composite method. Lastly, optimal method. Let me give you some theoretical background to those so that you can better choose by yourself for the S shape method and also known as the transversal method. In this method, the picker is simply walking all the way till the other end of the aisle and back in the next where a picking locator is assigned, empty aisles are skipped.When the picking process is completed, the routes go back to the starting point. Very simple method and that's also why it is widespread. Number two is the return method, very easy to implement and often used in the aisles go till the back end of the warehouse, the picker enters the aisles and picks all the goods on the left side, turns around at the last location and continues the process on the right side. Switching aisles only occurs in front of the racks. Number three midpoint method. As with the return method, the picker starts the process on the left side of the aisle, but the hard turn point is latest in the middle of the aisle and the process continue back aisle on the right side switching to the other half of the aisle takes place after the last aisle was processed from the front. Number four largest gap method similar to Number four largest gap method similar to midpoint method but the gap method is always a distance between the aisles. The position where this gap is the largest is the turn point for the picker, he returns to the front of the aisles and switches to the next aisles.In this method, the picker only gets to the backtrack of the rack from the first or last aisle. This method is mainly used when you have a low number of picks per aisle and switching between aisles is quicker. Number five the combined or socalled composite method picking again is done aisle by aisle but after the last pick in the aisle, a decision is made whether the return to the front of the rack or to switch aisles at the back of the rack. It depends on how to get quickest to the next picking location. Number six, the optimal method. This is heuristic driven and looks often like a mix of largest gap and S shape. It calculates the shortest way for the picker overall. So this was a lot of theory for now, but it gets obvious that you can save a lot of money for your company by reviewing the methodology that is currently in place and try some others. Thank you for watching this video and I would be happy to see you in the next lesson.

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