Factors driving the spatial layout of distribution channels
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Factors driving the spatial layout of distribution channels

1. Background

- Spatial decisions on distribution channel layout involve the layout of the transport and storage system between production and consumption and the selection of distribution centre (DC) locations.
- Both are strategic company decisions to meet logistics challenges, i.e., delivering the right product at the right location on time.
- What are the main factors that drive companies' spatial decisions on distribution channel layout?

2. Decision model

- Factor selection based on literature review and interviews with logistics experts.

3. Methods and data

Best-Worst Method (Rezaei, 2015) has been used to calculate the factor weights.

- Step 1: Determine a set of decision factors \( c_1, c_2, \ldots, c_n \)
- Step 2: Determine the best (i.e., most important) and worst (i.e., least important) factors.
- Step 3: Comparison of the best factor with the other factors (1: equally important, 9: extremely more important)
- Step 4: Comparison of the other factors with the worst factor
- Step 5: Finding the optimal factor weights \( w_1, w_2, \ldots, w_n \)

4. Results

Main factor weights

Sub factors – Service level

Sub factors – Accessibility

5. Conclusions

- 'Logistics costs', 'Service level' and 'Demand level' are the most important factors that drive decision making.
- Decision makers value 'transport costs' more highly than experts.
- 'Distance to suppliers' relatively unimportant: scale economies on inbound transport
- Some factors score low but could be very dynamic (e.g., 'returnability')

Next step

- Framework to take into account relationships between factors

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