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# Which comes first, delivery or sales?

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## Abstract

We deal with a synchronized tactical planning of sales territories and corresponding delivery routes for 3PL /4PL providers. Such a planning is challenging in FCMG markets where Traditional Trade is still strong compared to Key Accounts. In such markets, 3PL /4PL providers have exclusive distribution agreements with several brands. As the rule of thumb, each brand insists on a salesforce that sells only its products. On the other hand, the delivery of products from different brands can be consolidated. The brands are *compatible* if such consolidation is possible. The lists of the shops of two compatible brands usually overlap to a great extent.

The planner of sales territories for a single brand usually has complete freedom to organize territories for his/her salesforce. A single salesperson thus gets a territory that is often split into subterritories, where each subterritory can be handled during a single working day. Goods that are sold during a working day are either delivered during one or two working days. All subterritories of the salesforce related to a particular brand and assigned to a particular day can be identified with the daily list of shops in them. Based on the daily lists of shops from all its brands, 3PL/4PL provider plans its delivery routes. Since the planning of sales for different brands is not synchronized, it results in more visits and consequently in more kilometers and more vehicles engaged.

We propose a model for the synchronized planning for compatible brands and present first computational results.

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