ABSTRACT

Deliveries in large retailer stores become a problem, which is daily faced by the transport companies. Long holding time, anarchy in reception timetables and transfer of control and classification tasks to the delivery man, condition in most of the situations a delivery which does not leave margin for any manoeuvre, neither from operative nor from profitability point of view.

Taking into account that these big costumers will hardly change its reception policies. In order to optimise the service, it is rational to think that the vehicles delivering in large retailer stores must carry the maximum load addressed to these places. This obvious fact is extremely difficult to achieve.

A transport company allocates thirty to forty deliveries for each transport vehicle. Thus, profitability is impaired for the rest of deliveries not addressed to the large retailer stores. The time our vehicle waits in a large retailer store will affect the conditions of the rest services programmed.

This thesis plans the creation of a company specialised in deliveries to large retailer stores. The costumers of this company will be the traditional transport companies. These would handle to this company their own deliveries addressed to large retailer stores.

Profitability would lay on the concentration of deliveries to a same place. The vehicles of this companies would exclusively carry goods addressed to large retailer stores, minimising this way the operative impact of the deliveries in these areas.

Real market data have been used in order to dimension the company. The level of the problem has been evaluated in order to foresee the economic and operative needs that the project would require. In order to determine the location of the company, several placement factors have been considered.

In first place, using a theoretical model, an approximate location (at regional level) has been determined. Then, this location was adjusted by following the above mentioned location factors.

The most important criteria taken into consideration in the theoretical model were costumer’s demands at collection level and concentration of deliveries at distribution level. Once the optimum region has been decided, other more objective criteria are considered. These are mainly the communication network, availability and price of the industrial land.

Once the exact location of the company has been determined, the distribution analysis takes place. This is carried out in two steps. The first one is the zone determination. The second one is the route design. Both are based on the application of numeric methods by using calculation sheets.

The first above-mentioned step (zone determination) is based on a distance (or time) radio. From this, the minimum numbers of zones in which all the costumers are based in any of them. In the second step (route design) from data obtained in the previous step, the study is carried out considering the centre of each zone as a “nucleus”. From this nucleus, deliveries take place to the rest of centres located in the same area. This nucleus becomes a delivery site itself, and the numeric process establishes the result in a way in which the distribution cost becomes the minimum possible. Therefore, we achieve the establishment of the optimum number of zones along with a route design, which will allow to get the maximum profitability for the daily distribution.

Finally, this thesis elaborates a economical projection in which a theoretical start of the company is analysed. The economical balance of the company during the first years is also detailed.