

## Abstract

### Decision-making, strategies and performance evaluation of Italian travel agencies

**Autori:** Graziano Abrate, Clementina Bruno, Fabrizio Erbetta e Giovanni Fraquelli

**Keywords:** Travel agencies; efficiency; vertical integration; incoming.

**Background of the study** The evolution of tourism supply chain poses severe challenges to the business model of the traditional travel agencies. The profitability of the latter has been threatened both by the economic crisis and, especially, by the diffusion of ICT (Oviedo-Garcia et al., 2015). The digitalization of market relationships led to a sort of cannibalization of traditional travel agencies which operate physically on the market and have face-to-face contacts with the clients (Diaz et al., 2015; Amaro and Duarte, 2015). Given this background, it is crucial to investigate which type of strategic answer is possible for such operators, assessing their performance and its determinants. To this extent, few works have empirically investigated the performance of travel agencies (Barros and Matias, 2006; Sellers-Rubio and Nicolau-Gonzalbez, 2009), especially with focus on the strategic variables that may influence the performance. To the best of our knowledge, this is the first work in this sense on Italian travel agencies.

**Purpose of the study** The aim of the study is to investigate the determinants of travel agencies performances, analyzing in particular the role of three key variable: the level of vertical integration, i.e. the integration with the activity as a tour operator, the focus on the incoming market and the participation to networks of agencies. These aspects are expected to positively influence the profitability of a travel agency, since they create more opportunities to customize the touristic package, to face a less elastic demand and to improve the management of production costs. Other variables are also investigated, such as the level of involvement in online activities and the attention towards the business or leisure segment.

**Methodology** To determine the operating efficiency of a set of Italian travel agencies (42 agencies observed over three years, unbalanced panel) and identify the main efficiency determinants, we rely on a two-stages approach that uses Data Envelopment Analysis (DEA). This method is based on mathematical programming and computes the efficiency level of the observed firms with respect to a frontier of "best practices" identified starting from the best input-output combinations of the same firms. The resulting efficiency scores are subsequently regressed (truncated regression) on a set of variables of interest, in order to identify the efficiency determinants. From the applied point of view, we will employ an up-to-date technique using bootstrapping in both the stages (Simar and Wilson, 2007).

**Results** The results were obtained using an output-oriented VRS DEA approach. DEA requires the definition of a set of inputs and a set of outputs. Given the available data, we used the square meters of the offices and the operating expenditures (i.e., costs of materials, services and personnel) as inputs and the revenues as output. The output-orientation assumes that agencies maximise revenues given their inputs. We make use of this orientation as our aim is to explore how well travel agencies can use their resources in a context of high competitiveness. The mean efficiency in the sample is 0.880, which means that travel agencies could be able to increase, on average, revenues by 12% without expanding inputs. In order to explore what strategic levers may impact on efficiency, understood as a measure of competitiveness, we performed a second stage wherein efficiency scores were regressed on a set of covariates. The latter include the belonging to a network, the use of on-line tools, the attitude to serve the leisure market, the vertical integration toward the tour operator activity (measured as the percentage of revenues from inner production of tourist packages) and the choice to manage incoming flows. The results highlight a significant efficiency-enhancing impact of vertical integration and incoming characterization.

**Conclusions** The study assesses the level of efficiency of the economic activity of a sample of Italian travel agencies. It also investigates the relationship between output-oriented efficiency, understood as degree of competitiveness, and some variables capturing the environmental context and the management strategy of travel agencies. The results show that vertical integration and the choice to adopt a model of incoming tourism may improve the capacity of agencies to optimise revenues given their resources. From this point of view, it seems reasonable that the least efficient units exploit these strategic levers to improve their competitive position.

**Research implications and limitations** This research provides important managerial implications, identifying key drivers in travel agencies competitiveness, in terms of internal organization of the service production process and of the most promising segment of demand to focus on. The main limitations relate to the current dimension of the dataset, that should be improved in the future including a larger number of firms and, possibly, additional variables potentially affecting efficiency.

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