Understanding Tourism Innovation through Fuzzy Measures

Authors : Marcella De Filippo, Delio Colangelo, Luca Farnia

Abstract : In recent decades, the hyper-competition of tourism scenario has implicated the maturity of many businesses, attributing a central role to innovative processes and their dissemination in the economy of company management. At the same time, it has defined the need for monitoring the application of innovations, in order to govern and improve the performance of companies and destinations. The study aims to analyze and define the innovation in the tourism sector. The research actions have concerned, on the one hand, some in-depth interviews with experts, identifying innovation in terms of process and product, digitalization, sustainability policies and, on the other hand, to evaluate the interaction between these factors, in terms of substitutability and complementarity in management scenarios, in order to identify which one is essential to be competitive in the global scenario. Fuzzy measures and Choquet integral were used to elicit Experts' preferences. This method allows not only to evaluate the relative importance of each pillar, but also and more interestingly, the level of interaction, ranging from complementarity to substitutability, between pairs of factors. The results of the survey are the following: in terms of Shapley values, Experts assert that Innovation is the most important factor (32.32), followed by digitalization (31.86), Network (20.57) and Sustainability (15.25). In terms of Interaction indices, given the low degree of consensus among experts, the interaction between couples of criteria on average could be ignored; however, it is worth to note that the factors innovations and digitalization are those in which experts express the highest degree of interaction. However for some of them, these factors have a moderate level of complementarity (with a pick of 57.14), and others consider them moderately substitutes (with a pick of -39.58). Another example, although outlier is the interaction between network and digitalization, in which an expert consider them markedly substitutes (-77.08).

Keywords : innovation, business model, tourism, fuzzy
Conference Title : ICMHT 2017 : International Conference on Management, Hospitality and Tourism
Conference Location : Paris, France
Conference Dates : June 25-26, 2017