

# MANAGEMENT, PRODUCTION AND DESIGN

## Digital Transformation and Sustainability

<b>Funded By</b>	Dipartimento DIGEP FONDAZIONE CRT CASSA DI RISPARMIO DI TORINO [Piva/CF:06655250014]
<b>Supervisor</b>	RAGUSEO ELISABETTA - elisabetta.raguseo@polito.it
<b>Contact</b>	PAOLUCCI EMILIO - emilio.paolucci@polito.it
<b>Context of the research activity</b>	Digital Transformation and Sustainability in Services: A Multi-Method Approach in the Tourism sector
	<p>This PhD Scholarship is in line with the objectives of the programme “HORIZON EUROPE 2021-2027” based on boosting sustainability, resilience and the digital transformation of firms. The aim is twofold: 1) theoretically and empirically contributing to study the development of complementary competences in tourism enterprises and their effects on firm sustainability; 2) theoretically and empirically investigating the effects of digital transformation on the dynamics of the tourism ecosystem and on the ability to generate innovation opportunities and territorial competitiveness. In order to achieve these goals, a multi-method approach will be applied complementing econometric and machine learning approaches.</p> <p>The focus is on the tourism sector with a focus on Piedmont region since it represents for the Italian territory, rich in natural and cultural resources to be enhanced and promoted, a strategic territorial development chain at the top of the strengths of a system able to compete at international level. It is a dense, lively entrepreneurial fabric with potential for growth, but which is burdened by the serious problems of a fragmented production structure, which must necessarily enhance and continuously update the skills of its human capital and give impetus to the capacity for innovation.</p>

## Objectives

This research activity is collocated in the research stream “Digital transformation in tourism industry” on which the supervisors are involved from many years. This ongoing research is based on international collaborations with the business school Grenoble Ecole de Management and Audencia business school, and has already led to international publication on high ranked journals.

Specifically, the reason behind this research activity is based on understanding how firms can effectively address the challenges and rapid technological changes, which are exponentially and dramatically enhanced by the COVID-19 crisis. Among the challenges that companies need to recently address, the digital transformation is the one that account the most since it is required to connect with digital flows in the travel ecosystem, meet customers demand for frictionless tourism experiences and stay ahead of competitors and industry disruptors (Schaffer et al., 2021; Pencarelli, 2020; Cuomo et al., 2021).

Even though there is an increasing attention on sustainability and digital transformation, empirical evidence on sustainability and digital competences development within the tourism ecosystem, as well as the effects of the digital transformation on innovation opportunities and territorial competitiveness, are dramatically lacking. Despite the opportunities offered by digital transformation to tourism business, digitalization has been identified as a particular challenge in relation to new business capabilities required for handling data utilization, connectivity and digitization of products and services (Bharadwaj et al., 2013; WEF, 2018). Thus, a strong focus on digital competences at all levels is essential being also this aspect scantily investigated in literature and particularly important especially for tourism companies which face major challenges in the path toward digital transformation through capacity building actions aimed to increase the level of competencies to boost their capacity for digitalisation and sustainable innovation uptake.

Looking at the literature, research is devoting an increasing attention to the development of digital capabilities (Mérial-Alzola et al, 2020) as green capabilities (Al-Aomar & Hussain, 2017) and social capabilities (Adeyinka-Ojo et al., 2020) in tourism firms. However, these are addressed separately, overlooking the potential effects of the complementarity of competences required for digital and sustainable transformation. The literature also overlooks the innovation opportunities and territorial competitiveness derived from leveraging digital technologies.

Therefore, since in literature there is a lack of research investigating the potential of digital and sustainability related skills to strengthen each other, and subsequently enhance firm’s performance, and since existing research on competences mainly focuses on manufacturing sectors, overlooking the significance of this issue in service contexts and in particular in tourism, where the interplay between digitalization and sustainability is a particularly relevant challenge as previously outlined, this PhD Scholarship aims to theoretically and empirically study the development of competences in tourism companies testing their effects on digital transformation and sustainability as well as the effects of digital transformation on innovation opportunities and territorial competitiveness.

The candidate will join an interdisciplinary and international team of experts and collaborate daily with them. To perform her/his research activities, the

candidate will use multiple databases available at DIGEP including AirDNA database useful for evaluating the effects of the online platforms (namely Airbnb) on tourism companies, as well as the AIDA Bureau Van Dijk database containing the financial performance of companies.

**Skills and competencies for the development of the activity**

Candidates with a strong independent and critical thinking with competences in the field of management and strategy are welcome. PhD candidates are requested to work in a multidisciplinary team. The candidate should also have good knowledge of econometrics and statistical methods. Knowledge of another European language and previous international experiences is appreciated.