

# Entrepreneurship between Innovation and Sustainability

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## 1. In Memory of Alfio

This volume of the journal is dedicated to the memory of my friend and colleague Alfio Cariola, to whom I am deeply bound by a long-standing and deep friendship that arose during our PhD studies.

A full professor at the University of Calabria, dear Alfio developed, over the course of his long and brilliant career, an articulate academic and scientific path, characterised by a remarkable thematic breadth and a strong institutional commitment.

His passion for teaching was often reflected into the ability to involve colleagues, students, and friends in his ideas and his educational and scientific activities. One cannot fail to mention the role he played fostering not only cultural, but also human growth, authentically embodying the role of an academic, seeking not only to transmit knowledge, but also to guide and inspire his students.

He poured the same passion into research and scientific progress, combining his engineering knowledge with management and organizational expertise. In doing so, he developed new multidisciplinary methodological approaches through which to study topics of interest to our field.

His research items are collected in over 70 scientific publications, many

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of which have been featured in international journals, significantly contributing to the development of managerial literature and policies for innovation and territorial growth.

## **2. Entrepreneurship between Innovation and Sustainability**

In line with Alfio Cariola's work, the papers published in this Special Issue are dedicated to the main topics he dealt with, which we have gathered around three main research trajectories:

- entrepreneurship and business growth;
- business models innovation;
- sustainability.

From these themes, important considerations emerge regarding their relevance and the perspectives that take shape in this new path, where, in the current capitalist scenario, entrepreneurship appears to be characterized by the simultaneous presence of two fundamental drivers: innovation and sustainability. We cannot forget that the theme of entrepreneurship has been examined in the literature through different angles, each of which is fundamental for the economic and social growth of the enterprise, but above all for the connotation linked to the propensity to risk and the ability to generate new economic and market value through innovation. Risk, value, innovation and sustainability are, in fact, all concepts referred to in the international literature on entrepreneurship.

According to Schumpeter (1934), the entrepreneur is indeed the innovator, the one who must introduce new productive combinations, break with the past and create economic discontinuity through the creation of the new. Knight (1921), in turn, emphasised the role of uncertainty and risk, interpreting the entrepreneur as one who, in making decisions under conditions of uncertainty, must necessarily assume the business risk. In the sociological perspective, Max Weber (1904) explored entrepreneurship as a social and cultural behaviour, emphasising the capitalist spirit as the result of specific norms and ethical values. For Weber, entrepreneurship has always been intrinsically linked to Protestantism, with the idea that economic success should reflect a divine blessing. Finally, from a managerial perspective, an interesting approach is provided by Drucker (1985), who sees the entrepreneur as a resource manager and value creator. According to the author, entrepreneurship is seen as the ability to exploit opportunities in the environment to generate innovation and growth, focusing on efficiency and effectiveness in management.

All the perspectives outlined so far have gradually blurred over time,

sometimes integrating as the concept of entrepreneurship shifted towards a more holistic view that considered not only technological innovation, but also social and environmental innovation. Today, the emerging idea of entrepreneurship is one that can no longer ignore the integration of innovation and sustainability. The resulting sustainable innovation is characterised by the ability to generate solutions that reduce environmental impact, improve social welfare and, at the same time, ensure economic sustainability.

All this points to a new entrepreneurial orientation, which is developing through changing social expectations and increasing regulatory pressure, pushing companies towards sustainability, no longer seen as an optional strategic choice, but as a competitive necessity.

The shift from a traditional view of entrepreneurship to a sustainability-oriented perspective is therefore not only an opportunity, but an imperative for modern businesses, which must rethink their role as agents of positive change.

Ultimately, entrepreneurship cannot avoid the need to engage with innovation and economic sustainability. The key innovation that modern businesses must embrace is sustainability itself, driving the transformation of business models toward more sustainable practices. This has led to the emergence of new business models capable of integrating into their strategies activities that are more sensitive to the circular economy, to enhancing the efficient use of resources, and to ensuring transparency and corporate social responsibility.

In other words, the new perspective that emerges can no longer be read from a reductionist perspective by separating one concept from the other, but imposes a holistic and systemic vision in which the driver of entrepreneurship becomes precisely that of sustainable innovation.

This is what emerges from reading the contributions in this volume, which we have chosen to aggregate according to the three main areas of Alfio's thinking: entrepreneurship, innovation and sustainability

### 3. Special Issue Contributions

The first topic – *Entrepreneurship and Enterprise Growth* – was addressed through four papers.

The first contribution, by Mattia Fasano, Elvira Tiziana La Rocca and Raffaele Staglianò, titled “Crowdfunding’s impact on SMEs’ growth. A case study approach”, analysed the effect of equity crowdfunding (ECF) on the growth of two Italian SMEs operating in the agri-food and cleantech sectors; the two case studies were compared with similar enterprises not financed

through ECF. The research showed a significant improvement in performance, in terms of sales, EBITDA and ROA, following the application of such a financial strategy.

More generally, the paper contributes to the literature on entrepreneurship and alternative finance, highlighting the usefulness of ECF in overcoming financial constraints and fostering sustainable development paths. Furthermore, the paper reflects on the role of corporate governance in maximising the benefits of ECF, offering relevant insights for entrepreneurs and policy makers interested in promoting SME growth.

In this perspective, the paper by Maurizio La Rocca, Francesco Fasano, Daniele Monteforte, entitled “Adaptation or Persistence? Capital Structure Choices of Italian Firms Over Time”, analysed the capital structure choices of over 500,000 Italian SMEs over the period 2012-2023, in light of the firm’s financial life cycle theory. The results confirm a non-linear pattern in which firm age influences leverage choices: young firms make extensive use of debt, while mature firms favour self-financing. The study highlighted the persistence, over time, of the dynamics already identified by La Rocca *et al.* (2011), despite economic crises and structural transitions. The scientific interest lies in the empirical update of a classical model, with important implications for the definition of customised financing strategies along the different stages of the corporate life cycle.

The contribution by Mariacarmela Passarelli and Giuseppe Bongiorno, entitled “Digital Technologies and Student Entrepreneurship: a focus on University of Calabria”, investigates the determinants that drive young entrepreneurs to found ITC firms through an empirical analysis conducted by interviewing a sample of students at the University of Calabria. The aim was to ascertain the micro (autonomy, self-efficacy, pro-sociality) and meso (family context, education) factors that influenced the propensity to set up digital enterprises. The results show that autonomy, self-efficacy and innovative teaching play a key role in stimulating entrepreneurship, while age and gender are less significant.

The last paper concerning this first research topic is the one by Francesco Ricotta, Mariacarmela Passarelli, Angelo Baccelloni “Empowering entrepreneurship through high-growth firms: insights from a decade-long bibliometric analysis”, in which the strategic role of High-Growth Firms (HGFs) in the Italian economy is explored through a bibliometric analysis of the scientific literature from 2012 to 2021.

The purpose was to identify the main competitiveness drivers of HGFs and to understand how Industry 4.0 has redefined the theoretical and operational models associated with their growth. Three key drivers emerged from the analysis: technological investments, knowledge networks based on open

innovation and human capital development. The paper provides an evolutionary map of pre- and post-Industry 4.0 research strands, emphasising the strategic role of entrepreneurial ecosystems.

Ultimately, the four papers described have addressed the topic of entrepreneurship and business growth with a series of studies analysing growth dynamics and entrepreneurial innovation, considering alternative financial instruments such as crowdfunding, capital structure choices, new forms of student entrepreneurship and the role of high-growth enterprises.

*The second topic – Business Models Innovation – includes two papers.*

Pietro De Giovanni's paper, "Reflective vs. Formative Measurement Models in Operations and Supply Chain Research", addressed a node in Operations and Supply Chain Management (O&SCM) through Structural Equation Modeling (SEM).

The author highlights the frequent inappropriateness of traditional analysis models, which can undermine the empirical validity of analyses. Offering practical criteria and an application example, the Author proposes a critical methodological approach based on the construction of innovative conceptual models in O&SCM research. Ultimately, the contribution highlights a widespread limitation in the literature and proposes useful tools for more rigorous and innovative business model research.

The other work is by Andrea Lanza and Giuseppina Simone, titled "Value Creation in Tradition-led Industries: The Role of Innovative Practices. The Empirical Evidence from the Italian Wine Industry". The paper explores the adoption of innovative entrepreneurial strategies and their ability to generate value in tradition-dominated production contexts, as in the case of the Italian wine industry between 1999 and 2009. Through a quantitative analysis on panel data, the authors show that innovation (e.g. wine ageing in barrels) can produce a positive effect on the company's entire product portfolio. However, the size of the portfolio itself negatively moderates this relationship, highlighting tensions between innovative identity and traditional expectations.

The two papers described are ultimately dedicated to the topic of innovation in business models, with two research papers exploring measurement models in the supply chain and value creation in traditional industries, with a focus on the adoption of innovative strategies.

*The third topic – Sustainability – also includes two papers.* The first paper, by Mauro Sciarelli, Giovanni Landi, and Anna Prisco, titled: "Financial Performance and the Circular Economy: The Moderating Role of the CSR Committee", examines the relationship between financial performance and

the circular economy (EC) in European listed companies, analysing the moderating role of the CSR committee. Through an analysis of 567 companies over the period 2019-2023, the study shows that companies with better financial performance adopt EC practices more intensively. Moreover, the presence of a CSR committee within the Board of Directors positively reinforces this relationship, fostering the integration of sustainability within governance mechanisms. The contribution has a relevant scientific interest, as it fills a gap in the literature with respect to organisational factors that facilitate the transition towards circular models.

The latest work, by Michele Costabile and Pietro De Giovanni, titled: “Quantifying Social and Environmental Impacts through the Life Cycle Assessment”, proposed an integrated approach to measuring social and environmental sustainability through the Life Cycle Assessment (LCA) methodology, applied to the case of cotton production in India. Using the ISO 14040 and 26000 standards, the authors quantify the impact of key inputs (electricity, fertilisers, pesticides, machinery) on the environment and social conditions, highlighting how targeted strategies can mitigate their negative effects. The scientific interest lies in the combination of LCA and S-LCA to develop credible and sustainable decarbonisation plans, providing decision-making tools for companies and policy makers. Implications include the adoption of safer and more efficient agricultural practices, with positive impacts on ecosystems, health and workers’ rights.

The last two papers, therefore, focused on the topic of sustainability, helped to investigate the link between corporate performance, circular economy, sustainable governance and the assessment of social and environmental impacts.

In conclusion, all the papers illustrated offered a broad and in-depth analysis of the main research directions covered by Alfio Cariola: from the evolutionary trajectories characterising the contemporary entrepreneurial landscape, to the spread of crowdfunding as a development lever for SMEs, up to the dynamics of high-growth firms, from which a lively and changing picture emerges. At the same time, the papers highlight the role of innovation in traditional contexts and the need to adopt updated analytical tools to understand complex processes (e.g. supply chain and CSR). Finally, they have explored the growing commitment of businesses to environmental and social sustainability, emphasizing the measurement of impacts and the effectiveness of governance.