Preface

The service-driven economy

In advanced economies, the modernisation and qualification of services are established factors that help increase the utilisation value of infrastructures and products, which expand and improve the overall supply of goods, acquiring competitive advantage through the stable integration of manufacture with innovative services. Due to their nature as “intrusive and pervasive production factors”, services profusely participate in the growth of productivity and the overall competitiveness of the system and of industry itself. The challenge is therefore to enhance and promote the use of innovative services with the real industrialisation of the sector, as well as the forms of use and integration of services in different realities.

In recent years, in view of the extensive technological and organisational changes that have taken place in manufacturing, logistics and trade systems, academic and industrial research activities have developed to enhance the most powerful technologies and tools have been developed to help optimise services and their distribution in different businesses. Innovation functions to increase the levering effect in the modernisation of the economy – especially of industrial and logistics systems – by services. Their organic inclusion in supply chains involves frequently intervening and changing the architecture, governance and engineering of firm processes and compels innovation that combines technology, organisation and human resources as well as business and management models. In this sense, innovation in services is a powerful lever for cultural, technological and corporate renewal.

New models to create value

The theme of value and the strategies for its creation and sustainability is central in the economy of the firm and must be split into different dimensions: technical and managerial, measurement systems and business models. Creating value is the true goal of the economy: value for the firm, for the shareholder, for the customer and for the community. Without the ability to create value, no country can function and grow since increasing value is necessary for the production of wealth to be reinvested and redistributed.
The creation of value through services is a topic of great consequence. To create and capture value through services entails synergistically integrating and functionalising resources within and external to the firm’s core business, as well as the country-system. This requires the ability to adopt advanced models of synergistic integration between firms and between the public and private sector, not only in financial terms, but also in terms of governance and management.

Under the pressure of globalisation, firms are required to review their organisational structures, business models and value chains, experimenting with more advanced ways of service utilisation. New value creation chains are inspired by the integration of manufacturing with services, enabling firms to be more efficient and more competitive. These chains open internationally according to a “diffused industry” model on a global basis, where emerging countries are destined to play an increasingly more meaningful role.

This new transnational economic and industrial strategy cannot be a medium to long-term strategy because the value generation model on which it rests is a project that requires time to obtain optimum use of resources through strategic partnerships and specific investments in different countries.

This is the new way of living and working in a globalised world. There are already signs, as well as significant cases, of firms moving in this direction: forward-thinking large and medium-sized firms launching ample and pervasive competitive repositioning, and implementing aggregations, mergers and integrations to achieve the new core-business dimensional thresholds imposed by globalisation. They are evolving the traditional model of growth and proprietary innovation by opening up to the outside; they are increasingly using open innovation that is progressively becoming an integral part of the business model for cutting-edge firms.

Innovation in services is also becoming more open, collaborative, multidisciplinary and global; the transformation of the business model becomes the turning point of this change and has an effect on value creation. This is the key challenge to exploit the opportunities of globalisation and international markets, making leaps forward in the innovation of processes, products and services, and influencing the nature and sustainability of competitive advantage.

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**Service science and the experience of the Scuola Superiore Sant’Anna of Pisa**

Service science is the emerging discipline on an international level aiming to adapt and apply to the service sector scientific principles consolidated by management and industrial engineering while valorising its specificities as a distinguishing factor. In short, this is the interaction of different disciplines to form new professionals capable of designing, planning, organising and managing services in line with the requirements of an advanced and highly internationalised economy.

Service science provides an integrated and multidisciplinary approach to the amalgam of economics, management science, engineering and computer science to manage complex systems that are strongly impregnated with services in continuous adaptation and transformation when firms increasingly compete in the global
economy. Within this framework, systemic collaboration between industries, universities and research is an obligatory step to enable and integrate the externalities of new knowledge and technology, and to form the new specialist competencies and managerial excellence needed by manufacturing and service industries.

A primary objective is to train people who are able to collaborate and interact with a large and internationalised innovation system, where valorising, making room for and giving voice to young talent is key, considering them as the fundamental drivers of value creation in the global economy. Furthermore, in this context, firms must be able to adopt advanced management systems, aimed at not only short-term objectives, but rendering it functional and appropriate to the strategy to be implemented. Management innovation is thus configured as a key component of the evolution of organisations and the valorisation of the human capital in the context of a globalised world.

It is the responsibility of universities to provide firms with human resources that are trained and ready to live and work in multicultural contexts, to assume a leadership role in organisational change driven by digitalised technologies and to develop new strategies for innovation and growth. This is particularly true in the Italian context, where the innovation culture in services is still marginal, affecting the belated modernisation of the entire sector (which accounts for around 80% of GDP). This is a serious limitation when considering that the development of advanced economies is now, more than ever, based on services.

In this respect, the Scuola Superiore Sant’Anna of Pisa in 2007 successfully launched a Master’s of Innovation and Service Engineering (MAINS), putting to use twenty years of previous experience of training in innovation management, as a higher education programme to train people in developing resources of competencies and capabilities to operate successfully in service-oriented firms. More recently, in 2010, an International MSc in Innovation Management has also been established on the base of the MAINS knowledge assets.

In carrying out this project, a large group of leading companies is collaborating in the Sant’Anna School’s Master’s MAINS, with the aim of developing a systemic and original approach to service science that takes into account the living reality and is able to relate and integrate with it.

The contents of the chapters of this book, along with the cases developed in the MAINS “Innovation Lab” reported therein, fully confirm that it is possible to develop a systemic approach to service innovation in training, to design and implement new applications, and to improve organisational processes. All this may contribute to facing the innovation challenge by creating the cultural, professional and operational discontinuity needed to design new businesses and to launch a new economic development cycle.

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