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## Editorial

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**Biographical notes:** Dimitris Folinias is a Professor in International Hellenic University. He holds a PhD in Applied Informatics from University of Macedonia, Thessaloniki, Greece and Master of Information Systems from the same institution. He has held various teaching posts teaching mainly information systems, enterprise information systems and logistics and supply chain management. He is the author and co-author of over 280 research publications, ten books, and as a researcher, he has prepared, submitted and managed a number of projects funded by national and European Union research. His research interests and working experiences refer to information systems, logistics and supply chain management and technologies.

Pietro Evangelista is the Research Director at the Research Institute on Innovation and Services for Development (IRISS) of the Italian National Research Council (CNR), Naples, Italy. He is a business economist and he was awarded a PhD in Logistics and SCM by Heriot-Watt University (UK). He carried out research on economics and management issues associated with maritime-port logistics and ICT dissemination in logistics. His current scientific interest is on greening freight transport and logistics. He is a Docent of Green Logistics at the Lappeenranta University of Technology, Finland. He is a member of the research committee of the European Logistics Association.

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## 1 Introduction

Innovation is generally associated with something new or perceived as new. Schumpeter (1939) defines innovation as "...the setting up of a new production function". This covers the case of a new commodity as well as those of a new form of organisation or a merger, or the opening up of new markets. In Schumpeter's theory, innovation is a wide concept that it is not limited to the technology/manufacturing environment but it involves organisational, application and demand related aspects. Despite this, for long time the

academic and policy debate has focused on the role of the manufacturing to produce innovation and related influence on economic growth, while services have been viewed as low technology and low-wage economic activities. According with Pisano and Shih (2009), the predominant view is that the capacity of manufacturer to drives innovation because of externalities of the production process improve the ability to innovate and contribute to economic development.

Over the last decades, a number of trends have changed the international economy landscape such as globalisation, the steady growth in international competition, the corporate attempts to outsource and reduce the number of suppliers, the shortening product life cycles, the shift toward time-based competition, and changes in customer buying habits (Szegeedi, 2012). These trends fuelled the implementation of the supply chain management (SCM) as an approach providing new opportunities for creating competitive advantages for companies and contribute to the economic development. According with the Council for Supply Chain Management Professionals,

“Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies”.

The extant literature on SCM highlighted the positive effects of the supply chain on the local, national and international economy. In fact, an effective supply chain network can lead to the increase of the competitiveness of organisations on the micro-scale, and the national and international economies on the macro scale. Wood (2001) argued that the more chains a company and/or a country is already involved in, the easier is it to become involved in additional chains because there are economies of scale in the supply of infrastructure, skilled labour, support services, and information. This illustrates the practical relevance of the SCM approach and the existing link between the supply chain perspective and innovation. In essence, the SCM approach may be considered as a driver of innovation and economic growth in the modern economy.

Despite the importance of the supply chain approach, little research efforts have devoted to the logistics and SCM innovation (Evangelista et al., 2007). According with Arlbjørn et al. (2011), few contributions explicitly dealing with supply chain innovation in the second half of the twentieth century, such as industrial dynamics, materials requirements planning, the pull production systems within the Toyota production system, new forms of relationships and partnerships, and various incremental improvements to business processes. It is possible to conclude that there is a gap between the pragmatically recognised importance of SCM innovation and the impact on economic performance.

The main aim of this special issue is to contribute to bridge this gap through presenting a number of papers focused on a range of interesting topics directly and indirectly focused on the connection between innovation in SCM and economic growth.

## 2 An overview of the content of this special issue

This special issue includes six papers that are all relevant in the field of SCM innovation as a driver for economic growth.

The first paper by Schwemmer et al. is entitled 'Laying the foundation for high performance of new digital logistics ventures'. The authors argued that new ventures in the logistics service sector may have a crucial effect on infusing supply chain innovation in the industry. The recent emergence of new logistics ventures can be identified as a critical trend. Taking into account digitalisation, this study demonstrated how new logistics ventures can lead to high performance in a digital environment at an early stage of existence.

The title of the second paper written by Prockl et al. is 'Rural supply chain management: a multidimensional framework for future research in Europe'. It presents a framework to stimulate further studies and research endeavours in managing supply chain in rural context. An inductive approach is applied using an interdisciplinary panel of international experts to explore challenges and opportunities in the fields of rural development and SCM. The study provides a foundation for the future examination and theory building in this emerging research field. It also supports the development of rural markets and businesses in their efforts to cope with the challenges that are particularly relevant to retail and service industries.

The third paper is entitled 'The antecedents of innovation orientation in public procurement' and it is co-authored by Matela and Hallikas. The paper aims to identify the antecedents of purchasing performance (PP) management in the public sector. It presents a survey conducted in a Finnish Government agency. The empirical study shown that customer needs, supply risk, purchasing innovativeness and purchasing support influence the PP in public sector organisations. Only supply risk had a negative influence on the PP. Based on this research, sustainable purchasing development has no direct effect on PP.

'Unmanned aerial vehicles for inventory listing' is the title of the fourth paper written by Karamitsos et al. The work proposes a system in an industrial facility layout that enables the 24/7 operation of a drone for inventory listing. Operational activities include the automation of processes (navigation, routing, and identification of inventory levels) and the communication with the logistics infrastructure. The proposed integrated scenario provides a web-based multifunctional interface for monitoring inventory levels.

The paper entitled 'Implementation of game theory for the selection of optimal supply chain management strategies for startups in the electronics sector', by Pavlidis et al. is the fifth paper. This study presents an application of game theory in the management of multimodal transport business (i.e., transport of goods by at least two different means of transport but under a single contract) a sector that is rapidly growing as result of the globalisation of markets. The research considered the case of perishable edible commodities that need to be transported from Greece to China, given that there are short time limits and relevant sanctions, and it aims to identify the best strategy by solving this game.

Finally, the sixth paper entitled 'Analytical and simulation methods for the configuration of an efficient inventory management system in the wholesale industry: a case study' co-authored by Afentoulis and Zikopoulos, proposes a new inventory management system for confronting demand uncertainty to contemporary small-medium

sized enterprises, in order to minimise overall inventory management costs and, at the same time, maximise customer satisfaction.

### 3 Some concluding remarks

The papers comprised in this special issue indicate a number of factors which are all relevant when considering SCM innovation as a driver for economic growth. In real-life business environments the building of trust relationships between the industry and academia appears to be the one of the most critical success factor. Moreover, it must to be noted that innovations in SCM are mostly market-driven rather than research-driven.

Jointly considering all the above papers, readers can be aware of the main supply chain innovation factors and trends that will be influential for the future economic growth from two different perspectives. On the one hand, the growth in the global economy will have an impact on the dynamic development of supply chain networks that connect the world. On the other hand, supply chain innovations and strategies will have a clear effect on the development of the international economy in the future.

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