Preface

It is undeniable that information is a valuable asset for any business nowadays. It is also easy to recognize the function of Logistics managerial principals and the action of supply chains in our lives. No service, no production can be understood today without the fundamental perception of information, knowledge to implement logistics scientific approaches through optimized supply chains. This motto is true even when we perceive the return of some protectionism or commercial barriers in international transactions, as those organizations who implemented mechanisms to expand their operations throughout the world have to evaluate their knowledge to change their development towards new business models and strategic goals. The dynamics remain opportune and this book fitted exactly in this context.

The proposition for this project emerged in a work conducted in 2014 at InescTec, a major European applied research institution located in the beautiful town of Porto, Portugal. As we understood the opportune for its edition, several contributions where evaluated and eventually we got the approval of IGI Global to promote this discussion. As another worldwide project, here we have Handbook of Research on Information Management for Effective Logistics and Supply Chains, approaching from several aspects this challenging context of information and knowledge management to implement effective logistics and supply chains.

This book is structured in three main sections. The first brings the main points of view of its editors, starting with a chapter of George Jamil, where a discussion about the balance on the application of quantitative and qualitative methodological approaches for research, especially when addressing processes that are massive on numerical factors, such as those related to logistics and supply chains.

The second chapter, authored by Cláudio Pessoa and Marco Elísio Marques, discusses how supply chain management (SCM) trends can compose the information management platform idealized to effective insert information technology as one critical component of logistics implementation. This first level analysis can help the reader to understand and explore several of the further chapters of this book.

Concluding the first section, António Lucas Soares and members of his team at InescTec – Dario Messina, Cláudio Santos and Ana Cristina Barros – approached risk management factor in the conception and implementation of supply chains, considering the information management point of view. It is a text where the authors show the potential of this book, as they observe this relevant factor – risk – considering how information management plays a fundamental role in supply chains development.

The second section focuses the theoretical background discussion around book’s main conceptual areas: information and knowledge management and logistics and supply chains conceptions, modelling and implementation. This consolidation is needed, as those areas, as shown by the three initial chapters, have immense potential to improve the comprehension for real organizational projects.
In the fourth chapter, Victor Lazzareschi and Mônica Brito assessed the important moment of executive stakeholder reports for projects, observing factors such as risk mitigation, compliance and policies adhesion among several other processes and demanded methods in modern organizations. This chapter motivates the reader both to better understand these situations from the information management point of view and for potential improvement on the analysis of these essential reports.

Chapter 5, authored by Giulia Bruno, consolidates a mature proposition to understand the value and position of SMEs in competitive, global networks, as those produced by integrated supply chains. These dynamics, sometimes, pressures these SMEs with sectorial competitive demands which can result in a loss of knowledge around overall network management. Author’s proposition guides the reader to a more precise grade of assessment for a better level of analysis for this entrepreneurial integration.

The next chapter presents the views of Dr. Kipokin Kasemsap, from Suan Sunandha Rajabhat University, of Bangkok, proposing an opportune consolidation of theories which approach information systems, information technology for supply chain compositions and logistics decisions, mainly observing information sharing in global networks. His findings define a knowledge platform that can serve for many further researches and practical applications.

Chapter 7 includes another important element for supply chain study: the importance of stakeholders’ precise identification. It was written by Pedro Fernandes de Anunciação, Bruno Garcia and Gleyson Fonseca, from Instituto Politécnico de Setúbal, Portugal, and focused this process in public services provision, discussing other relevant related themes such as information access, information sharing and value and social relevance of information for modern public organizations.

In Chapter 8, Brazilian consultants Brenner Lopes, Luander Falcão and Thiago Canellas, related supply chain projects and implementations with strategic planning processes. The authors promote this study providing our reader with a broad view on how to extract potential competitive advantage when approach supply chain and its related management considering information resources and processes.

Following chapter, written by Brazilian researchers, coordinated by the consultant and Professor Paulo Renato de Sousa, associated a relevant, modern factor with management for logistics and supply chain: Energy efficiency. As transport and other major logistics activities are energy demanding, its optimal planning, as studied by this group of authors, is another aspect that must deserve special consideration by planners and researchers.

Another interesting factor is brought by the authors of Chapter 10, as authors analyzed the concepts of agility and human performance. As supply chains and logistics fundamentals are applied to compose modern entrepreneurial arrangements, additional research factors, with such a critical application like those, are opportune to understand. In this chapter, an equation system was reached and its application proved the relationship of information technology to both factors.

Concluding the second section, George Jamil and Cecília Carvalho Jamil investigated the application of information technology, design and managerial principles in one of the most challenging sectors of modern businesses – Fashion. As a scenario where information and knowledge, along with technology, industrial facilities and equipment and, obviously, people, can be regarded as valuable and strategic resources, these authors proposed some issues, questions and ways to promote studies, in an exploratory approach.

The third section was proposed to connect the motivations of the first and the conceptual background developed in the second to practical applications, mainly considering real cases analysis. This section starts with chapter Twelve, where a group of Colombian researchers addressed the importance of information and its management to develop the design of a decision support system which focused specifically
the problems related to load and unload goods, considering Colombia’s beautiful capital, Bogotá, as the scenery of one application of this system. The case developed can help researchers and practitioners to understand how these parameters can be further designed to other implementations, taking Colombian case as a good example.

Chapter 13 presents an integrated study of supply chain management, customer relationship management and knowledge management, observing the case of automation of sales forces for industrial corporative arrangements. Tunisian authors, coordinated by Dr. Dhouha Jaziri-Bouagina, promoted a thorough theoretical review, applied to a practical case where commercial activities were observed as relevant for supply chain actions.

In the next chapter, authors Edilaine Soares and Fernando Zaidan studied how financial costs for logistics, as provisioned by information technology, can allow investments in this important component of a supply chain. This study proposes, at the end, one rational model to implement such calculus methods and ways to analyze its results dynamically, serving also to follow market development.

Authors from Instituto Politécnico de Setúbal, Portugal, composed the Chapter 15 to study how competitive intelligence can be produced for strategic decisions, involving the perception of value creation and management towards user’s satisfaction, observing the market of fashion accessories. This chapter considered a competitive chain implemented in the Brazilian Southeast.

Real implementation of a Fleet Management System (FMS) is the matter of both Chapters 16 and 17, authored by Polish researchers, coordinated by Dr. Petre Iltchev. In the first of these chapters, authors proposed ways to analyze the benefits of a FMS adoption, reaching a more formal, reference-based criterion to evaluate this process. As technology becomes more affordable and such systems became easier to use, it is important for practitioners to be more prepared for such strategic evaluation. The next chapter proposes, in addition, a method to understand if a specific organization is able to implement FMS system in order to perceive its best result. It is another important contribution for practitioners who need based knowledge to design the best alternative to implement such modern information systems.

In Chapter 18, authors José Carlos Simão and Pedro Fernandes studied problems regarding ports – as an important logistics component – management to implement multimodal alternatives. They approached a method, called Single Port, to understand and solve those problems, considering the modern and strategic installations of Sines port, in Portugal, as the basic case.

The next chapter, also written by Instituto Politécnico de Setúbal, shows another important integrated analysis, when observing how an enterprise resource planning information system was implemented for medical products distribution, considering information management principles in its basic project. It tools and methods sometimes are proposed “per se”, without major business and strategic considerations, where information management can become an essential way to understand these aspects.

In Chapter 20, researchers Jorge Lima and Arlene Magalhães, from Fundação Oswaldo Cruz, a major Brazilian research institution, observed how pharmaceutical items distribution, especially in the cases of neglected medicines, can be strategic for public health management and treatments. A purchase methodology, to be applied by public agents, regarding information management was approached by the authors, composing a practical study case.

Dr. José Poças Rascão assesses, in Chapter 21, theoretical principles and practical issues concerning information systems design for logistics and supply chain management. His views encompass several aspects and factors, such as financial, performance-relation, indicators definition and measurement among many others, bringing to light innovative points for their optimal implementation.
Preface

Chapter 22, written by a group of researchers of InescTec, coordinated by Dr. António Lucas Soares, based on studies held by this institute in order to enable corporative associations to promote international business. In this context, information management for logistics and supply chain implementations were addressed by authors, reaching recommendations to evaluate collaborative platforms for SMEs.

Researchers Cláudio Pessoa and Manuel Fiúza Júnior approached telecommunications systems as part of information systems projects, especially observing cases for practical design of logistics and supply chain functions in Chapter 23. As an evolving component of these applications, with mobile communications and Internet-of-the-things solutions, it is opportune for the reader to understand the perspectives of these important components, sometimes not correctly addressed in real ISs projects.

In Chapter 24, another team of authors from Instituto Politécnico de Setúbal, Portugal, wrote about information management process and its contributions for competitive advantage planning and positioning in industrial networks. Authors analyzed, for example, data flows, as exposed in diagrams, to produce analytical results which can be considered by readers in practical implementations for logistics and supply chain.

Concluding our book, Chapter 25, authored by a group of researchers led by Dr. Maria José Sousa, with an overview on how information technologies can be specified for practical implementations in logistics and supply chain solutions. Issues like efficiency, costs and innovative results were observed by authors, resulting in a potential guide for practical design.

These chapters, worked by authors with different points of view, experiences and formations, resulted in a complex and wide study around these strategically competitive solutions presented by modern logistics and supply chain implementations. Taken in an isolated, intuitive fashion, these solutions already result in conditions for entrepreneurs and practitioners for temporary and aggressive plans. Our book intends to provide an oriented theoretical background with a practical overview which can produce a solid base for any real project, allowing its sustainability and predictable life cycle.

We wish you a good reading (and good implementations!),

George Leal Jamil
InescTec, Portugal