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“In an age of rising environmental concerns, it has become necessary for businesses to pay special attention the resources they are consuming and the long-term effects of the products they are creating. These concerns, coupled with the current global economic crisis, demand a solution that includes not only business, but politics, ecology, and culture as well.”

This is the way I started out writing the preface of both of the volumes I edited with IGI Global on sustainability related issues. It is still valid and explains the gist of the sustainability issue so I will repeat it at the start of the new volume *Ethics and Sustainability in Global Supply Chain Management*. I gave the first book proposal to IGI Global in the summer of 2013. This first book was finalized towards fall 2014 and published as hard copy in January 2015. This gave me the idea for the second book and this came out as a hard copy by 2016 March. Both of the books included a total of 47 papers from eminent authors worldwide.

In the first volume edited by me entitled *Developing Sustainable Value in Economics, Finance, and Marketing* authors provided the latest empirical research findings on how sustainable development can work not just for organizations, but for the global economy as a whole. This book published in 2015 was seen as an essential reference source for professionals and researchers in various fields, including economics, finance, and marketing (see for example Balanli and Hesapci (2015) paper); operations management; communication sciences; sociology; and information technology. Now all the chapters in this book are covered in SCOPUS and impact is seen as citations from journals, conferences and theses are being tracked. Works from the book were cited by eminent global conferences such as “International Conference on Sustainable Design, Engineering and Construction”.

The increasing challenges in waste management have given rise to the idea of editing a new book this time with the theme *waste management and sustainability*. This proposal was made to the publisher and resulted in the new title *Handbook of Research on Waste Management Techniques for Sustainability*.

The second book focused more on waste management which is a particularly important area of sustainability. Both solid and liquid wastes are growing with increasing population and wealth. How to deal with the waste resulting from human activities is a matter of concern for developing countries. The 4 R’s consisting of Reduction, Reuse, Recycling, and Recovery deserve a lot of multidisciplinary research. I contributed to this volume with two chapters one entitled “SCOR Model and the Green Supply Chain” and the other entitled “Reverse Logistics: Automobile Recalls and other Considerations” written with my then PhD student Yasin Galip Gencer (Akkucuk, 2016; Akkucuk & Gencer, 2016). The SCOR Model paper was cited in Journal of Hotel and Business Management.

Following the research line I developed in the previous volume the main topic of the third book was aptly chosen as “Sustainable Supply Chain Management”. SSCM as it can be abbreviated focuses on
delivering value along the Supply Chain in a way that also ensures fair labor practices, lower emissions and a cleaner environment. Principles of SSCM are practiced by many global companies with production and distribution operations around the world. Supply Chain Management and Reverse Logistics are particularly important areas of sustainability. Both solid and liquid wastes are growing with increasing population and wealth. How to deal with the waste resulting from human activities is a matter of concern for developing countries. The 4 R’s consisting of Reduction, Reuse, Recycling, and Recovery deserve a lot of multidisciplinary research.

Chapter 1 starts the discussion with explaining how “Warranty Cost Analysis within Sustainable Supply Chain” has become a new and important concept for sustainable supply chain management. The primary contribution offered by this book chapter is that it presents a quantitative assessment of the effect of offering warranties on remanufactured items from a manufacturer’s perspective in that it proposes an appealing price in the eyes of the buyer as well. While there are developmental studies on warranty policies for brand new products and a few on secondhand products, there exist limited studies that evaluate the potential benefits of warranties on remanufactured products in a quantitative and comprehensive manner. In these studies, the profit improvements achieved by the offering of warranties for different policies determine the range of how much money can be invested in a warranty while still keeping it profitable overall. This paper considers how to predict the effect of offering non-renewable one-dimensional warranty policies to disassembled components and sensor embedded remanufactured products and how to assess the impact of sensor embedded products on warranty cost.

Chapters 2 and 3 by the same author explore the ideas of environmental management and the relationship with production planning. Chapter 2 indicates the advanced issues of environmental management; Life Cycle Assessment (LCA) and life cycle costing; waste management, environmental sustainability, and environmental benefits; Solid Waste Management (SWM); electronic waste management; construction waste management; and the importance of Municipal Solid Waste Management (MSWM). Environmental management is a systematic strategy that companies can apply to find the different ways for saving water, energy, and materials, and for reducing the negative environmental impacts. Environmental management aims to prevent pollution, preserve natural resources, and reduce environmental risks toward creating an environmentally-friendly image with different stakeholders. Effective waste management method reduces the consumption of natural resources and lowers the ultimate needs for waste disposal. The chapter argues that enhancing environmental management and waste management has the potential to increase environmental performance toward environmental sustainability. Chapter 3 explains the overview of production planning; the issues of remanufacturing production planning and control; Advanced Production Planning and Scheduling (APPS) and Radio Frequency Identification (RFID); production planning conflict resolution and optimization models; production planning and emission constraints; production planning and quality management; production planning and Cellular Manufacturing System (CMS); production planning in the steel industry; production planning in the energy industry; and production planning in the chemical process industry. The purpose of production planning is to organize the resources in order to efficiently manage the production costs, time, and staffing in the business operations. The individual in charge of production planning adjusts the workforce and process flow to obtain the regular utilization of organizational resources with minimal downtime, minimal bottlenecks, and a level of output consistent with all the resources being put into the manufacturing processes.

Chapter 4 investigates the important area of supplier selection. Supplier selection process is one of the daily activities of purchasing departments in the maquiladora industries, but traditionally the attributes analyzed are those that can be quantified, ignoring others because its impact on the production
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process or on the company’s revenues is unknown. This article presents a structural equation model in which three latent variables associated with administrative attributes are integrated, the benefits obtained along production process and marketing, where three hypotheses which relate them are exposed. The information is derived from a survey of 253 managers who works in maquiladoras in Mexico, thus a descriptive analysis of the sample and the items are obtained. The hypotheses were validated according to a structural equation model and the results indicate that there is a direct and positive effect between the variables analyzed, but the most interesting due to its size, is between the profits made by the production process and the marketing benefits.

Chapter 5 is a discussion on green SCM theory and practice. Increases in environmental problems require companies to be more aware towards the environment and take precautions regarding the problems. As a result, companies have started to embrace the concept of green supply chain which includes environmental issues rather than the concept of supply chain which is based on profitability. Green supply chain (GSC) has emerged as an important component of the environmental and supply chain strategies. In order to make a supply chain green, it is necessary to consider all activities in the supply chain such as raw material procurement, inbound logistics, transformation, outbound logistics, marketing, after-sales and appropriate product disposal. This paper aims to review different GSCM dimensions in the literature by explaining green supply chain concept and address the activities/practices that can be used to ensure these dimensions are green.

Chapter 6 focuses on the concept of Reporting for Sustainability. Companies have started to publish social and environmental reports, in addition to their financial reports. Disclosing non-financial information takes the form of sustainability reports due to some pressures from the environment. The reasons of why organizations publish sustainability reports and benefits that can be obtained with such disclosures can be explained from institutional theory, legitimacy theory and stakeholder theory perspectives. This chapter aims to broaden the understanding about sustainability reporting. Thus, after a quick introduction with the meaning and scope of sustainability and organizational sustainability, theoretical framework for sustainability reporting practices and related studies from different organizational contexts are examined. Besides, sustainability in the Turkish business context is shortly addressed.

Chapter 7 is another look at the concept of governance of supply chains. The main objective of this chapter is to shed some light on governance and membership strategies of network organizations. Today’s business environment compels firms to join forces in order to be competitive and sustainable. However, the success of the networks mainly depends on their network composition and how they are governed. In this chapter, the author proposes some strategies and the proper governance structure facilitating these strategies by taking the effects of severity of resource acquisition challenges and external legitimacy of whole network organization into consideration. The arguments are based on Resource Based Theory and Stakeholder theory. Moreover, the author of this chapter suggests a counter example for the claim propounded by Provan and Kenis (2007) that the evolution of network governance from more formalized one to the less formalized one is unlikely. From these respects, the chapter contributes to the literature since mentioned points have been rarely discussed.

Chapter 8 examines the concept of life cycle costing. Sustainability is the essential key point in every aspects of our life. It cannot be successful when it is limited to some certain issues in daily life. It is a revolutionary step for continuous development without any impact to the nature that should be adapted to the economy, manufacturing, urbanization, industrialization, etc. Increasing population and increasing wealth causes increase in the necessities of the human being. If it is considered as inevitable to give many bad impacts to the environment, this type of perspective is more dangerous and harmful
to the environment and society than giving unconscious damages. This point of view might make these impacts to be accepted as legal, and this is what should be strongly discarded. There should be a new concept which enlarged our sphere of concern to include the entire physical environment including animals, plants, and landforms.

Chapter 9 focuses on the roles and responsibilities of directors of companies. The chapter focuses on the key changes the roles and duties of Directors and Independent Directors under the light of New Amendment Act, 2013 of the Companies Act, 1956. This chapter analyzes the role of Directors / Independent Director by comparing the two major Companies Act 1956 and Companies Act 2013. Company Act 2013, is an initiation for better corporate governance, increasing levels of transparency and enhance the corporate and auditor’s accountability. New Amendment Act of 2013 is a good legislative attempt by the Government. The following points are focused for the first time in this New Act, 2013. Duties of Directors are defined and Role of Independent Directors is defined. The Board has to take the precautions to implement proper systems and to ensure that all the compliance with the provisions of all the applicable laws which were adequate and operating effectively. As per the provisions of the New Act, 2013 the maximum number of Directors can be appointed are 15 with a special resolution, can be increased more than 15. Made provision for women Director.

Chapter 10 illustrates different examples or energy regulation in Turkey. The Banking Regulation and Supervision Agency (BRSA) in Turkey has implemented a risk based framework since 2006, making bold moves of resulted in a stellar increase of capital adequacy in Turkish Banking System. But the enactment of the new law for the Internal capital adequacy assessment process (ICAAP) is evaluated as being quite an early adoption. The Bank for International Settlements (BIS) points that Turkey has early-adopted the implementation recommending further discussions for a reconsideration of the target capital adequacy ratio. The banks have already found it difficult to follow up high capital adequacy especially while financing energy projects, as the Turkish Banking system is preparing for the requirements of Basel III framework. Under the new regulation, the ICAAP is expected to decrease the capital adequacy of banks in Turkey. Meanwhile, the challenge in adopting ICAAP can be an additional barrier standing in the way to the development of energy market.

Chapter 11 discusses the concept of SCM in retailing. Supply chain management is receiving increased attention as means of becoming competitive in a globally challenging environment. As its use is rising in several businesses, we have focused on SCM in retailing business. The concept of ethics has become more critical for companies. In this paper, ethics and sustainability in retailing are also examined. Sustainability has received more attention in retail management. Sustainability related issues have been discussed for many years and the term sustainability has received increased attention in research since the last two decade. This paper brings an overview of past and current sustainability research in retail applications for examining retailing and sustainability relevance. The paper considers role of retailers in supply chains through an extensive analysis of sustainability examinations in different research areas relevant to retail supply chains. Ultimately, the study is exampled from retailing businesses and it is concluded by further discussions.

Chapter 12 provides examples on corporate R&D spending and risk. Corporate R&D Investments, that constitute basis for sustainable development, are influenced by external and firm-specific risks. Evidence shows that firms in Turkey have increased R&D spending during subprime crisis despite its procyclicality in most of the emerging countries. This chapter investigates if business group affiliation or corporate diversification that is predominant in Turkey stimulate R&D investments under risk. It focuses on internal capital markets of business groups or conglomerates that may enhance R&D spending
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by reducing financial constraints, and likelihood of distress of the affiliated firms. The results reveal that group affiliation and diversification positively affect corporate R&D spending when firm-specific risks rise. These results are significant during the global crisis period. Group-affiliated corporations increase their R&D investments as idiosyncratic risks rise. The diversified conglomerates increase R&D investments when earnings volatility and equity erosion rise. Results indicate that large firms are more inclined to reduce R&D investments under risk.

Chapter 13 performs an empirical review of green SCM practices in Turkey and Egypt. The main purpose of this chapter is to extend the literature on drivers and barriers to GSCM from a different cultural framework, namely Egypt. The chapter is structured as follows. First, the importance and the components of GSCM are discussed briefly. Next, the benefits of GSCM and the main pressures/drivers that force the business sector to migrate its traditional supply chain activities to be green are highlighted. Next, the key theme of this chapter, the barriers and challenges facing the global business sector for extending green supply chain practices are discussed. Then, the results of multiple interviews that were conducted in multinational Turkish and Egyptian companies operating in Egypt are revealed in order to explore the drivers, benefits and barriers of GSCM and to propose the strategies for overcoming the barriers toward green economy. Finally, the chapter concludes with discussion and recommendations.

Chapter 14 explores the use of multi criteria decision making methods in GSCM. Due to increasing importance of environmental issues, green practices became an important part of supply chain management. Today, various multi-criteria decision making techniques (MCDM) have been utilized for incorporation of green efforts in supply chain practices effectively. The purpose of this paper is examining the existing application areas of MCDM techniques in green supply chain management (GSCM) literature. Three questions will be investigated in relation to this issue: (1) which MCDM techniques were prevalently applied in GSCM literature?, (2) which MCDM techniques have been overlooked in GSCM literature?, (3) what are the major application areas of MCDM techniques in GSCM practices? To this aim, literature is reviewed between the period of 2008 and the first half of 2016. In total, ninety eight journal articles were examined. Consequently, this paper represents a detailed picture of application areas of MCDM techniques in GSCM practices and can definitely give a blueprint to researchers in solving multiple objective problems effectively in the area of GSCM.

During the first decade of the 21st century the world has witnessed corporate scandals, global economic crises and rising environmental concerns. As a result of these developments, there has been growing pressure on businesses to pay more attention to the environmental and resource consequences of the products they produce and services they deliver. The concept of sustainable development has gained more importance as a solution to these problems. Sustainable development has a number of facets related to politics, ecology, economics, business, supply chain management and waste management. Researchers and practitioners face increasing challenges in terms of integrating issues of sustainability with the traditional areas of management such as marketing, operations, finance, accounting and organizations management. In order to fully understand this multidisciplinary area and how it impacts global business this book tried to shed light on aspects related to waste management.

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REFERENCES

