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SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF INTERNATIONAL TRADE AND LOGISTICS

AN EXPLORATORY STUDY OF THE DIFFERENCES BETWEEN THE GREEN SUPPLY CHAIN PRACTICES OF GOODS VS. SERVICE RETAILERS

Doctoral Thesis

SELEN BEDÜK
121157205

Thesis Advisor
Prof. Dr. MEHMET TANYAŞ

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.....

Prof.Dr.Mehmet TANYAŞ
(Başkan) (Danışman)

.....

Prof.Dr.Umut R.TUZKAYA
Jüri Üyesi

.....

Prof.Dr.Sevgin A. EROĞLU
Jüri Üyesi

.....

Doç.Dr.Murat BASKAK
Jüri Üyesi

.....

Yrd.Doç.Dr.Burak KÜÇÜK
Jüri Üyesi

PREFACE

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GENERAL INFORMATION

Name and Surname	: Selen Bedük
Field	: International Trade and Logistics
Supervisor	: Prof. Dr. Mehmet Tanyaş
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ABSTRACT

This study aims to explore the potential differences in the green supply chain practices (GSCP) of goods vs service retailers. Given that there are significant distinctions between the retailing of goods and services, we expect to see differences between the GSCP of high service retailers (such as hotels) and their low-service counterparts (such as grocery retailers). Specifically, we posit that there will be variations between goods retailers and service retailers with respect to the extent and type of GSCP adopted by them, the barriers they face and the strategies they use to address the challenges in their efforts toward this end. In addition, and closely related to this objective, our research also aims to examine the impact of the customer to the GSCP of retailers. The findings of this research bear implications for professionals, academics and policy makers who are interested in GSCP and its applications in the retail industry.

GENEL BİLGİLER

İsim ve Soyadı : Selen Bedük
Anabilim Dalı : Uluslararası Ticaret ve Lojistik
Danışmanı : Prof. Dr. Mehmet Tanyaş

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ÖZET

Bu araştırma yeşil tedarik zinciri uygulamalarında ürün ağırlıklı perakendeciler ile hizmet ağırlıklı perakendeciler arasındaki olası farklılıkları ortaya çıkarmayı amaçlamaktadır. Bu çalışma hizmet ve ürün perakendeciliğinde görünen önemli farkların hizmet ağırlıklı perakendeciler (örneğin, oteller) ve ürün ağırlıklı perakendecilerin (örneğin, marketler) yeşil tedarik zinciri uygulamalarına da yansıyacağı varsayımından yola çıkılarak yapılmıştır. Bu bağlamda yukarıda belirtilen farklı hizmet seviyelerinde çalışan perakendecilerin uyguladıkları yeşil tedarik zinciri yöntemlerinin, bu alanda karşılaşılan engellerin ve bunları aşma çabalarının da önemli farklılıklar göstereceği beklenmektedir. İkincil ve buna bağlı bir konu olarak, araştırmamız perakendecilerin yeşil tedarik zinciri uygulamalarında müşterinin olası etkilerini de incelemektedir. Bu çalışmanın neticesinde çıkan bulguların yeşil tedarik zinciri ve bunun perakende uygulamaları konusuna eğilen akademisyenlere, sektör çalışanlarına ve karar alıcılara ışık tutması amaçlanmaktadır.

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ABBREVIATIONS

EU	**:** European Union
EMAS	**:** Eco-Management and Audit Scheme
GSCM	**:** Green Supply Chain Management
GSCP	**:** Green Supply Chain Practice
LCA	**:** Life Cycle Analysis
RL	**:** Reverse Logistics
R-SCM	**:** Retail Suppy Chain Management
SCM	**:** Supply Chain Management
SRD	**:** Sectoral Reference Document
US	**:** United States

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CHAPTER ONE

1. OVERVIEW OF THE STUDY

Greening of the supply chain has become an increasingly important topic for both academics and practitioners. Given the opportunities to contribute to the triple bottom line (people, planet and profit) via environmentally sustainable supply chain operations, the topic has been gaining critical attention from managers and researchers alike.

While there is substantial literature on the green supply chain practices (GSCP) of manufacturers, the same is not true for applications in the context of retailing. This is surprising given that retailers are in a unique and powerful position to affect changes in GSCP of producers and consumers alike. Since the retailer constitutes the final link in the supply chain as an interface between these two parties, it has the potential to drive environmental sustainability by encouraging adoption of green practices upstream and downstream. With the exception of a few notable studies the status quo of the GSCP among retailers continues to be a fairly unexplored area of research.

One notable exception is work by Naidoo (2014) which examined the status quo of GSCP, albeit within the limited scope of the South African retailers. Another exception is the body of work in the context of hospitality (a service retail industry), where researchers examine the current practices with an eye to sustainability, albeit only a handful with a focus on GSCP.

This research aims to fill in these gaps in the literature and addresses a call by Naidoo (2014) to go deeper into the sub-sectors of retailing. Specifically, we aim to explore the potential differences in the drivers, barriers and benefits associated with the GSCP of goods vs. service retailers. Given that there are significant differences between the retailing of services and products, we expect to see distinctions between the GSCP of service retailers (such as hotels, hospitals and restaurants) and their low-service counterparts (such as mass merchandisers, grocery retailers and convenience stores). Specifically, we propose that there will be variations in the antecedents, types and outcomes of GSCP of retailers that predominantly sell goods from those that are predominantly focused on selling services.

Closely related to the above objective is the secondary research purpose: Given the intimate interface between the retailer and the customer, especially in the service-intensive formats, we aim to explore if and how customers affect the GSCP of their retailers. The retailer is the only supply chain point where the customer is involved in this process and this involvement increases as the retailers' format becomes more and more service intensive. We propose that this customer-retail interaction in the supply chain process is likely to affect the GSCP of retailers, especiallly the service-intensive formats, where the expectations and behaviors of the customers might shape the nature and outcomes of the green supply chain strategies of their retailers. Based on our literature review in supply chain, green marketing and green retailing, we find this topic to be an important, but under-researched, area of academic inquiry.

This is an exploratory study which uses the inductive method to analyse the above-mentioned research problem. Given that the area is virtually unexplored, we begin with a review of the literature in the field of GSCP with a specific eye to the marketing and retailing industry. We then proceed to use both qualitative and quantitative methods which explore the GSCP of two different types of retailers, namely, a service-intensive format (hotel) and a goods-intensive format (grocery store). Next, we synthesize our findings from the literature review, initial exploratory interviews and the structured surveys to draw hypotheses for future empirical verification. Finally, we conclude with implications for academics and practitioners interested in the GSCP of goods and service retailers.

1.1 Research Background

Most retailers provide both goods and services to their customers, yet, the importance put on the merchandise or the service differs greatly across different retail formats. Essentially, we can envision this being on a spectrum from "all goods/no services" (such as a wholesale club) to "all services/no goods" (such as a bank, a university). Moving from one end to the other, different retail formats increase their service element: department stores offer gift wrapping, restaurants provide food, table service, ambient atmosphere; hotels, which are at the end of the spectrum offer venues for eating, sleeping, washing, exercising, as well as products associated with their services such as soaps, shampoo, water, and so forth.

Service retailing is different from goods retailing in the way that services are different from products in the following four ways (Levy and Weitz, 2015). Intangibility refers to the fact that services cannot be seen or touched and as such their quality is much harder to assess. Because of this, service retailers often use tangible symbols and means to appraise customers about the quality of their services. Perishability refers to the fact that, unlike products, services cannot be saved, stored or resold. A hotel room that is left unsold is lost forever and cannot be retrieved. Thus, the waste and losses due to perishability can become an important element of retailer's business success or failure. Inconsistency refers to the fact that, unlike products which can be produced by machines, services are often produced by people and are, therefore, likely to vary in quality. In other words, no two services produced by people can be completely identical since many factors that determine service quality are beyond the control of the retailer. Simultaneity refers to the requirement that, most of the time, the production and consumption of the service occurs simultaneously. Because of this, the consumer plays a critical role in the service delivery making it that is hard for retailers to reduce costs via mass production. In our opinion, among all of the above four differences, perishability and simultaneity are likely to have the most important implications for the supply chains, specifically, those of the retailers. For example, the perishability attribute has strong implications for reverse logistics, waste management and procurement aspects in the green supply chain. The simultaneity attribute is critical in water and energy conservation, waste management, staff training and information, consumer education and marketing to name a few (See Table 1.1 for a detailed depiction). Although the remaining two qualities of services (namely, intangibility and inconsistency) also might affect the retailers' green supply chain efforts to some extent, we believe that perishability and simultaneity bear the most significant implications in the area of retail GSCP. We propose that the customers are likely to affect the retailer GSCP in at least two ways: 1) With their expectations from the retailer (regarding "green" practices), 2) With their behaviors (in terms of cooperating with retailers' efforts, such as in reusing the towels at the hotel or being careful with shopping bag consumption at the supermarket). In sum, our secondary research and exploratory interviews to date have led us to the study's research objectives.

Table 1.1. Relationship Between Retailers' GSCP and Four Characteristics of Service Retailing

	INTANGIBILITY	PERISHABILITY	INCONSISTENCY	SIMULTANEITY
Environmental strategy, policies, systems and governance	X			
Staff training and incentives	X	X	X	X
Promotion of green products				
Green procurement and sourcing		X		
Use of green energy sources		X		
Optimization of transportation and logistics operations		X		
Solid waste management		X		X
Energy usage management		X		X
Water usage management				X
Green site selection and infrastructure design				
Customer education and marketing	X	X	X	X
Environmental charity giving				
Use of benchmarking and measurement indicators				
Measurement of financial impact			X	
Reporting of sustainability policies and practices				

1.2 Statement of the Research Problem

We focus on two interrelated, yet under-studied, research issues: A) Given the major differences between goods and service retailing, we explore whether there are differences in the drivers, types and outcomes of the GSCP adopted by those firms which focus on retailing of products vs. services, and B) Given the critical role that customers play in the operation of service-intensive retailers, we investigate what impact, if any, they might have on the antecedents and outcomes of these retailers' GSCP efforts, and how that impact might be different from that of the goods retailers.

In light of the above discussion, we identify the following research questions as the focus of our study:

1. Do the number and extent of the GSCP of goods retailers differ from those of the service retailers in the following selected areas of supply chain which are most relevant for retailers: solid waste management; optimization of transportation and logistics operations; green procurement and sourcing; green site selection and infrastructure design; staff training and education; customer education and marketing?
2. How, if any, do the drivers of the GSCP differ between goods retailers and service retailers?
3. How, if any, do the perceived adoption barriers of the GSCP differ between goods retailers and service retailers?
4. How, if any, do the perceived adoption benefits of the GSCP differ between goods retailers and service retailers?

5. What impact, if any, does the consumer have on the antecedents (i.e., instigation & implementation) and outcomes (i.e., success) of the GSCP of goods retailers and service retailers? Does that impact vary between goods vs. service retailers?

1.3 Conceptual Definitions

1.3.1 Retailing: The set of business activities that adds value to products and services sold to consumers for their personal or family use. Not all retailing involves selling of goods, some retailers specialize in sales of services, and most of them sell both goods and services varying on a wide spectrum.

1.3.1.1 Goods vs. Services Retailing: The type of retailing format largely depends on whether the retail firms sell primarily goods or services although most retailers provide both of these in varying degrees depending on the format they adopt. This classification moves on a continuum from no services (e.g. in wholesale clubs) to all service (e.g. banks and dry cleaners). However, even primarily service retailers might offer some products in order to enhance or support the value they provide (such as brochures and token gifts at banks, coffee service at the law offices, etc).

1.3.1.2 Difference Between Goods and Services Retailing: There are four major differences between services and products. Intangibility refers to the fact that services cannot be seen or touched and as such their quality is much harder to assess. Service retailers often use tangible symbols and means to inform customers about the quality of their services. Perishability refers to the fact that, services cannot be saved, stored or resold. A hotel room that is left unsold is lost forever and cannot be retrieved. Thus, the waste and losses due to perishability can become an important element of retailer's business success or failure. Inconsistency refers to the fact that, unlike products which can be produced by machines, services are often produced by people and are, therefore, likely to vary in quality. In other words, no two services produced by people can be identical. This means that the provider and the service receiver (customer) a lot factors that determine service quality are beyond the control of the retailer. Simultaneity refers to the requirement that most of the time the production and consumption of the service occurs simultaneously where the service provider and the receiver both have to be present at the same time and place. Because of this, it is hard for retailers to reduce costs via mass production. We

posit that all of the above four differences have implications for the green supply chains used by goods and service intensive retailers, but, in particular, perishability and simultaneity are expected to play the most critical role in this process.

1.3.2 Green Supply Chain Practices: The consideration of inter-organizational activities related to environmental management is the primary characteristic of Green Supply Chain Practices (GSCP). Unlike environmental technologies, and partly due to the lack of consensus in the supply chain management literature, it is difficult to conceptually develop the notion of GSCP in a solid theoretical framework. This lack of a conceptual framework can explain the broad range of, sometimes conflicting and overlapping, definitions and terminology found in the literature. For instance, environmental issues in supply chain have been labelled and defined using a variety of terms including green supply (Bowen et al. 2001), environmental purchasing (Carter and Carter 1998; Zsidisin and Siferd 2001), green purchasing (Min and Galle 1997), and green value chain (Handfield et al. 1997). In addition, there are numerous studies on product stewardship (e.g., Snir 2001), life-cycle- analysis (e.g., McIntyre et al. 1998), reverse logistics (e.g., Stock 1998), and product recovery (e.g., Thierry et al. 1995). Despite the proliferation of terms and concepts, it is possible to identify the general characteristics of GSCP. They include: (i) interaction between a buyer and its suppliers directed at achieving sustained improvements in environmental performance at the buying organization (Handfield et al. 1997; Hines et al. 2000); (ii) interaction between a buyer and its suppliers directed at achieving sustained improvements in environmental performance at the suppliers' organization (Gavaghan et al. 1998; Lippmann 1999); and (iii) information gathering and processing in order to evaluate or to control suppliers' behaviour regarding the natural environment (Krut and Karasin 1999; Min and Galle 1997), (Vachon, 2006).

1.4 Study Limitations

Perhaps the most significant limitation of the study is the small sample size due to respondent unwillingness to participate in a survey whose topic is politically and socially sensitive. This is a problem that we see across the board in the literature and is seemingly one of the reasons why most research in the area resorts to case study method. We aim to address this limitation by maximizing the number of respondents from the companies which agree to cooperate in our research efforts.

CHAPTER TWO

2. LITERATURE REVIEW AND HYPOTHESES

2.1 Introduction

Our review of the literature includes over 120 scholarly publications spanning over a decade (2000-2016) from the ABI/INFORM electronic database. These include of the articles, dissertations and books searched with the key words, “Environment”, “Sustainability”, “(Green) Retailing” and “supply chain practices/ green supply chain practices/ management” in goods and services retailing. The findings of the studies that are most relevant to this research are summarized in Annex 2.

Reviewing the relevant articles in the area, the green supply chain practices in the retailing industry emerges as an understudied, but promising, topic of study. Our literature review shows that environmental consciousness has a growing impact on the industry. Annex 2 shows the categories of environmental and sustainability topics that relate to specific areas of retailing. An interesting development we propose in the field is to shift academic attention from goods (or product) retailing to other formats within the industry, such as service retailing. Essentially, these formats vary on a spectrum from all goods/no services (warehouse clubs) to all service/no goods (banking, education).

Our literature leads to several critical conclusions: 1) The research on the green supply chain practices (GSCP) in retail industry has important managerial and theoretical implications, yet, with the exception of a few studies, it is a totally virgin area of study; 2) In the sphere of green retailing, there is a fair amount of literature on hospitality retailers, perhaps due to the heavy toll of tourism and hospitality on the natural environment but at the expense of other service retail formats; 3) There is no study to date which examines the GSCP of retailers with an eye to format differences, ranging from all goods/no service to all service/no goods spectrum; and, 4) There is no study to date which explores the potential differences between goods vs. service retailers and especially the critical role that the customer might play in affecting their GSCP, which we expect to be increasingly higher as the service component of the retailer increases.

In sum, the present study aims to contribute to the literature by filling in the above-mentioned gaps and inspiring further research on the topic of retailers' GSCP efforts with an eye to differences between formats and the potential role that customers play in these efforts.

2.2 Green Supply Chain Management: Green supply chain management (GSCM) is defined by Srivastava (2007, p.54) as " integrating environmental thinking into the total supply chain management including product design, material or product sourcing and selection, manufacturing or operational processes, marketing and distribution of the final product to the consumers, as well as end-of-life management of the product after its useful life".

The concept of green supply chain management is also described as " covering all phases of product's life cycle, from the extraction of raw materials through the design, production, and distribution phases, to the use of the product by consumers and its disposal at the end of the product's life cycle" (Walker, Di Sisto and Mcbain 2008, pp. 69-85).

GSCM has been playing a key role for organizations which want to become environmentally sustainable for many decades now. The increasing pressure for environmental sustainability led enterprises to implement strategies to reduce the environmental impacts of their products and services (Lewis and Gretsakis, 2001; Sarkis, 1995, 2001). Van Hock and Erasmus (2000) mentions that GSCM has become an important new archetype for enterprises to achieve profit and market share objectives by lowering their environmental risks and impacts while raising their ecological efficiency.

Ghobakhloo et al. (2013) presents the concept of Green Supply Chain Management (GSCM) as Green Supply Chain Management= Green Product Design + Green Material Management + Green Manufacturing Process + Green Distribution and Marketing + Reverse Logistics (RL). Each of these domains are briefly explained now.

2.2.1 *Green Product Design :* Ghobakhloo et al. (2013) defines environmentally conscious product design as having many stages such as design for recycling and design for disassembly. Complexity of the product can be minimized through determining the design specifications of the product with the idea of designing for disassembly. Srivastava (2007) mentions that green product design includes both environmentally conscious design and life-cycle analysis (LCA) of the product. The process for assessing and evaluating the environmental, occupational health and resource-related consequences of product through all phases of its life are the concerns of the life-cycle analysis. Tracking all material and energy flows of a product from the extraction of its materials out of the environment to the disposal of the product back into the environment are all related to it (Arena, Mastellone & Perugini, 2003; Srivastava, 2007).

2.2.2 *Green Material Management:* Green material management includes using and/or replacing potentially hazardous material or processes by ones that are environmentally and socially less problematic, and purrchasing from ‘ green partners’ who satisfy green partner environmental quality standards (Ninlawan et al., 2010). Suggested guidelines for green material management by Hervani, Helms and Sarkis (2005) include:

- While maintaining compatibility with the existing manufacturing infrastructure, fewer numbers of different materials in a single product should be used.
- More adaptable materials for multiple product applications should be used.
- Smaller number of secondary operations should be used to reduce the amount of scrap and simplify the rcovery processes.

2.2.3 *Green Manufacturing Process:* According to Ninlawan et al. (2010), green manufacturing can be defined as ” production processes which use inputs with relatively low environmental impacts, which are highly efficient, and with little or no waste or pollution”. Srivastava (2007) contends that one major focus of this process is to reduce the amount of waste at the manufacturing and downstream stages where recycling is performed in order retrieve the material content of used and non-functioning products.

Ghobakhloo et al. (2013) focuses on the emission reduction in green manufacturing and identifies its two primary objectives: as control and prevention. While control involves trapping, storing, treating and disposing of emissions and effluents, prevention addresses reducing, changing and preventing emissions and effluents altogether through better housekeeping, material substitution, recycling and process innovation (Ghokahloo et al., 2013). Ninlawan et al. (2010) contends that green manufacturing can lead to reduced environmental impacts but also lower raw material costs, production efficiency gains, reduced occupational expenses and improved corporate image.

2.2.4 Green Marketing and Distibution: This concerns the "place" and "promotion and advertising" elements of the marketing mix with an eye to lower the negative impact on the environment (Ghobakhloo et al., 2010). Cox (2008) defines green advertising as any advertisement that presents a corporate image of environmental responsibility, supports a green lifestyle with or without highlighting a product and clearly and understandably addresses the relationship between a product and the biophysical environment'. Bjorklund (2010) describes green distribution as the transportation process which has a lesser or reduced negative impact on human health and the natural environment. The implications of these functions for retailers are immense, ranging from logisitics required in moving their merchandise to affecting the corporate reputation and image with the claims on social and environmental responsibility withoutt "green washing" repercussions.

2.2.5 Reverse Logistics: Srivastava (2007) describes this concept as the closing loop of the green supply chain management which includes reuse, remanufacturing and/or recycling materials into new materials or other products with value in the marketplace.

2.3 Structure of a Traditional Retail Supply Chain vs. Green Retail Supply Chain

Power in the supply chain has traditionally rested with manufacturers, focusing on operations, distribution, inventory, and transportation functions at the firm level (Drucker, 1962; Langley, 1980; Poist, 1974). Suppliers and retailers were forced to align themselves with manufacturer priorities. Similarly, researchers also adopted this manufacturing driven perspective (Defee et al., 2009).

Over the past 20 years has led a fundamental shift in marketplace power from manufacturers to retailers (Arnold, 2002; LaLonde and Masters, 1994; Srinivasan et al., 2004). Producers such as Proctor & Gamble and General Motors used to be the controllers of the supply chain issues but today organizations that are closer to consumer such as Wal-Mart, Target and Best Buy are fast taking the leadership role (Brodie et al., 2011; Lusch et al., 2007). Hence, understanding supply cahin management from a retail perspective becomes increasingly important as the power of the demand continues to evolve (Davies, 2009).

Randall, Gibson, Defee, Williams (2011) indicates the strategic importance of retailers' impact on retail supply chain management (RSCM) concluding that effective ones can provide retail success. Brown et al.(2005) defines the success of a retail supply chain as being dependent on the efficient and effective flow of goods that insures the right products are in the right place at the right time. Many retailers' success now rely on capabilities of their suppliers in order to create responsive supply chains that effectively meet the ever changing needs of customers (Vickery et al. 2003).

Our focus here is on a specific area under the greater umbrella of the retail supply chain—mainly on its green counterpart which focuses on supply chain efficiency with an emphasis on the responsibility towards nature.

The efforts to reduce the impact of environmental harmful activities in the manufacturing sector have been labeled as green supply chain management (Swami & Shah, 2011). Similarly, applying this term to the retail industry is labelled as green retail supply chain.

Dos Santos (2012) contends that retailers can incorporate more environmentally friendly products, services and procedures into their supply chains ranging from green supplier and site selection to green operations to consumer and employee education. Examples abound, notably with the formidable efforts of Walmart leading the way in the industry (Gibbs 2009).

2.4 Green Supply Chain Practices (GSCP) in Retailing

General GSCP can be classified in many ways. Zhu and Sarkis (2004) propose four major dimensions: internal environmental management, external environmental management, investment recovery, and eco design as follows (Zhu and Sarkis, 2004).

- Internal environmental management describes the company‘s internal activities aimed at becoming more environmentally-friendly, such as the degree of commitment received from top management as well as the company’s acquisition of environmental compliance programs such as the ISO 14001 certification.
- External green supply chain management deals with firm’s external relationships sucH as purchasing of eco-friendly products and building of relationships with customers and suppliers to become more environmentally sound.
- Investment recovery concerns the sale of used materials and scrap as well as the selling of excess inventory materials.
- Eco-design includes the design of products for recycling, reuse or recovery and, in the case of retailing, the design of selling venues and site selection.

In the specific context of retailing, the literature is very scant with the exception of a piece by Evans and Denny (2009) which tried to clarify the nature and domain of the GSCP in the retail industry proper. After conducting qualitative and empirical research on thegreen supply chain practices with leading retailers from Japan, Europe, Canada, US, and Australia and integrating all the research to date on the topic, the authors grouped the green supply chain practices in retailing into 15 categories which is now widely used by researchers and practitioners alike. We find this categorization to be both exhaustive and well-fitting with the retail industry. The classification is now adopted by a number of organizations worldwide including the Green Retail Association of Canada, the European Union (EU), Eco-Management and Audit Scheme (EMAS), Sectoral Reference Document (SRD) and so forth (European Commission, 2011). Below is the list that we have adopted to guide this research:

- Environmental strategy, policies, systems and governance
- Staff training and incentives
- Promotion of green products
- Green procurement and sourcing
- Use of green energy sources
- Optimization of transportation and logistics operations
- Solid waste management
- Energy usage management
- Water usage management
- Green site selection and infrastructure design
- Customer education and marketing
- Environmental charity giving
- Use of benchmarking and measurement indicators
- Measurement of financial impact
- Reporting of sustainability policies and practices

Increasingly, the potential of the retail industry's ability to impact GSCP is being recognized worldwide. There are at least two reasons for this predicament. First, retailers typically constitute the last and the only interface in the entire supply chain where products meet the customers—both household and industrial buyers. As such, they are at once shaped by consumer demand as well as having the power to shape them in return. This has many implications for antecedents and outcomes of GSCP from green merchandise selection to green operations to green education of customers and employees. Second, the traditional brick-and-mortar retailers, as opposed to their online counterparts, are required to conduct their businesses within specific venues (stores, hotels, etc) that reflect the value proposition of their formats. The sheer fact that these structures are built for facilitating commercial transactions underscores the implications for GSCP such as green design and site selection, green operations, waste and energy management, and so on.

Partly due to these realities, the "greenness" of the supply chain practicess takes on a heightened importance within the context of retailing. Serving as the interface between the consumed (goods and services) and the consumer, the retailer is in a postion to affect great changes in the GSCP. In

examining green retailing, Kotzab and Madlberger (2001) offers a categorization of the relationship between environmental sustainability issues and their relationship to various retail operations and systems (See Table 2.1).

Table 2.1 Environmental Sustainability Concerns in the Context of Retailing

	Environmental concern	**Retailing Implication**
1	Fundamental environmental attitude	Acquire an insight into the retailer's essential standpoint on environmental issues
2	Use of energy	Survey of the measures which indicate the saving of energy and the use of more environmentally friendly energy
3	Use of input material	Mapping the type of materials used (renewable – or nonrenewable resources), where the ingredients come from and whether recycled materials are used
4	Product	Mapping the activities performed to make the products more environmentally friendly, both in itself, but also by its usage and facilitation of reuse and recycling
5	Packaging	Mapping of accomplished activities to reduce the amount of product and transport packaging and how environmentally friendly material was used
6	Transport	Mapping the set-up of distribution channels from an environmental viewpoint in order to save transport kilometres in addition to assessing the transport from an environmental perspective. Also, whether or not activities are performed to reduce the size of a product which affects the total transport volume of the product
7	Consumption	Mapping the activities that retailers carry out in order to encourage customers to consume more environmentally safe products and the elimination of non-environmental (word missing – benefitting) products
8	Waste	Survey the retailer's efforts to reduce material, eventually reuse of materials, including cooperation with others, and dealing with clients' waste and recycling material

Source: (Kotzab and Madlberger, 2001)

2.4.1 GSCP Among Service Retailers

Environmental concern and awareness gain greater importance in globalized world. Acting against environmental policies is no longer an acceptable option. Companies should be aware of the greening processes which enable environment conservation and minimize negative environmental impact. In this vein, retailers of both goods and services play a major role. Specifically, the hospitality industry seems to have received the most research attention in this field.

Verma (2014) examined GSCM practices in the Indian hospitality industry which we consider as high-service retailers. He applied the conceptual framework of Hervani et. al. (2005) to studying green supply chain management practices in the Indian hospitality context by focusing on the following areas: green procurement, green design, green manufacturing, green operations and reverse logistics and waste management.

Similarly, Thomas & P S James (2013) followed a case study approach while identifying the green supply chain practices in the hospitality sector. His study paved the way for other companies to adopt or innovate new ideas for reducing their carbon footprint.

Not only companies but also hotel guests are becoming more interested in the environment and environmentally friendly products. Many hotel executives, managers, and employees are becoming more educated on the environmentally friendly products and services (‘Why Should Hotels be Green?’, 2010).

Hospitality industry and environment are closely connected. Environment is affected by the consumption of resources such as water and electricity, which are potentially damaging to the surrounding environment (Bohdanowicz, 2006). As such, the hospitality industry has been pressured by its various constituencies to become more environmentally friendly (Foster, Sampson & Dunn, 2000; Lynes & Dredge, 2006; Manaktola & Jauhari, 2007), including by consumers as well environmental regulators (Foster et al. 2000).

2.4.2 GSCP Among Goods Retailers

This literature is scant. In a recent study, Kotzab, Munch, Faultrier and Teller (2011) focused on supply chain operations of retailers with respect to their environmental sustainability initiatives. They examined Carrefour, Coop and Marks&Spencer, among others, to better understand the environmental supply chain activities and their potential country related differences. Their findings showed that based on the forgoing discussion, we have identified the following hypotheses regarding the differences between the GSCP of goods vs. services retailers.

H1. The number and extent of the GSCP of goods retailers differ from those of the service retailers in the following areas: solid waste management; optimization of transportation and logistics operations; green procurement and sourcing; green site selection and infrastructure design; staff training and education; customer education and marketing?

H2. The drivers of the GSCP differ between good retailers and service retailers?

H3. The perceived adoption barriers of the GSCP differ between goods retailers and service retailers?

H4. The perceived adoption benefits of GSCP differ between goods retailers and service retailers?

H5. Consumers impaction the a) instigation, and b) outcomes of the GSCP differ between goods retailers and service retailers?

CHAPTER THREE

3. METHODOLOGY

3.1. The Objective and Importance of the Study

The objective of this study is to identify the differences that might exist between:

- the extent and types of the GSCP adopted by goods vs. service retailers,
- the drivers of the GSCP of goods vs. service retailers,
- the perceived adoption barriers to the GSCP of goods vs. service retailers,
- the perceived adoption benefits of the GSCP of goods vs. service retailers.
- The potential role that consumers play in the adoption and success of the GSCP of goods vs. service retailers.

Given that retailers serve as the interface between producers and consumers, they play a crucial role to drive the adoption of the GSCP by both constituencies. The retail industry is one of the main levers of the global industry in which supply chain management has become a key determinant of business success and competitive advantage in today's challenging marketplace. Environmental sustainability is an ever-growing concern for all the constituencies of retailing, including consumers, suppliers and policy makers. Hence, the topic of green supply chain management in retailing has crucial managerial and policy implications.

Considering these concerns, this study is important for several reasons. From an academic perspective, while there is ample literature about the GSCP of manufacturers, not much exists within the context of retailing. One notable exception is a recent work by Naidoo (2014) which examines the GSCP of retailers, albeit within the limited sphere of South Africa. His work concludes by highlighting the importance of the retail industry in GSCP and calls for more research especially into the *sub-sectors* of this industry, such as among different retailer types. Addressing this research call, we aim to focus on the potential differences between those retailers which are intensive vs. light with respect to the extent of service that is required in their formats. The findings of this study are expected to create awareness about and assist retail companies, their constituencies, suppliers and the public policy makers in their efforts to advance their green supply chain activities in order to contribute toward preserving the sustainability of the natural environment.

3.2. Qualitative Data Collection

In this study both quantitative and qualitative research methodologies are employed. Beginning with a secondary data collection online, a series of exploratory interviews were conducted which then led to the last phase of data collection with the structured surveys used for more precise measurement.

The qualitative interview approach intends to explore the perception of interviewees in the context of their setting through a process of attentiveness and empathetic understanding (Miles and Hubermann, 1994:6). This approach entails one-on-one in-depth interviews with selected respondents from the focal firms to gain insight into the research domain. Toward this end, we conducted five such interviews with respondents from five hospitality service retailers (hotels) in the country of Cyprus. Using a convenience sampling, the hotels were selected for no reason other than on the basis of their willingness to participate in our research. The respondents were selected on the basis of their knowledge of the area (i.e. supply chain and green supply chain practices in their organizations). Each interview lasted approximately two hours and the respondents were debriefed ahead of time about the objectives and procedures of the research project. They were also granted corporate and personal anonymity and confidentiality.

A qualitative research interview is descriptive, pre-suppositionless and focuses on certain themes considering the sensitivity of the interviewer. It is semi-structured as it is neither a free conversation nor a fully structured one. The interviewer follows all the tips for a good interview such as being an active listener (smiling and giving prompts during pauses, keeping eye contact and feeding back the dialogue (Winderlish, 2009; 93-95)

Survey questions were built on the conceptual framework derived from existing literature review and interview questions. The qualitative interviews in this study used the following questions as a guide:

1. Could you please introduce your company's supply chain process in general?
2. To what extent is each of the following environmental sustainability or greening practices adopted in your company's supply chain practices? (Waste management, water consumption, energy consumption, staff trainings & incentives, customer education & marketing, optimization of transportation & logistics operations).
3. In your opinion, are there any forces that drive your company's efforts to adopt green supply chain practices?

4. What do you think are the benefits that your organization expects to realize from adopting green supply chain practices? (Eco-friendly company image, increase in customer loyalty and market attraction etc.)
5. Are there any obstacles that your company has experienced or foresee in the adoption of green supply chain practices?

To analyze the interview material qualitative content analysis method was used in this study. It is a method in which the material is analyzed step by step, following rules of procedure by devising and summarizing the material into analytical units based on content (Winderlish, 2009; 95).

3.3. Quantitative Data Collection

In order to collect the relevant quantitative data, we used the survey methodology. The design of the survey questionnaire is based on the conceptual framework derived from the findings of the literature review and the insights from the qualitative interviews. The survey questionnaire is presented in Annex 3. Following the recommendations by Saunders et al. (2009), the Likert Scale was used as a means to understand the degree of agreement or disagreement with each of a series of statements or alternates by the respondents. The survey questionnaire consisted of the following sections:

Section I. The current GSCP implementation in the focalcompany
Section II. Drivers of the current GSCP implementation in the focal company
Section III: Perceived adoption barriers to GSCP implementation in the focal company
Section IV: Perceived adoption benefits of GSCP implementation in the focal company
Section V: Exploration of customers' influence on focal company's adoption of GSCP

3.3.1 Sampling Procedure

The objective of this part of the study was to get quantitative input by targeting different service and goods retailers from the United States, Turkey and Cyprus at the corporate head office level as subjects of the empirical field research. It also intended to reach primarily the general managers, sustainability managers, supply chain managers, logistics managers, procurement managers and financial managers at the corporate head offices of the service and goods retailers to participate in

the study. The reason for targeting mainly managers was to get more informed input about the corporate strategies, policies and practices.

The survey methodology was used for this purpose. The questionnaires were sent to companies via e-mail communication with a cover letter explaining the objectives of the study, and with the guarantee that all information is confidential and anonymous. The online survey was sent out on April 15, 2017 and one week subsequent to having released the survey, follow-up calls were made to the recipients of the participation request.

Among the service retailers, the survey questionnaire was sent to a total of 120 respondents in service retailers (hotels) in US, Turkey and Cyprus as follows: 40 respondents in two different five-star hotels in the US; 20 respondents at a five-star hotel in Turkey, and to 80 respondents in four different five-star hotels in Cyprus with hundred percent participation. In goods retailing, the survey questionnaire was sent to five different supermarket chains in Cyprus aiming twenty respondents from each. Only two of them did not respond at all. The response rates from the service retailers in the US, Turkey and Cyprus were 100%, 75% and 100%, respectively.

Among the goods retailers, the participation rates were considerably lower, and, unfortunately the responses were limited only to three supermarkets with a total of 60 usable completed surveys out of 100 sent, with a response rate of 60%. In sum, a total of 220 respondents were contacted during the survey from twelve companies. 114 questionnaires returned out of 120 for service retailing sector and 60 questionnaires returned out of 100 for goods retailing sector (See Table 3.1).

Table 3.1 Frequency of participants of the study

Variable	Group	f	%
Retail sector	Service	114	65.5
	Goods	60	34.5
	Total	174	100

Table 3.2 Respondent profile of the service retailers (N=114)

Variable	Group	f	%
Job status	Assistant General Manager	4	3.5
	Assistant Manager	12	10.5
	Chef	18	15.8
	General Manager	8	7.0
	Manager	42	36.8
	Other	6	5.3
	Specialist	6	5.3
	Staff	18	15.8
Total work experience in the sector	1-5 years	30	26.3
	6-10 years	22	19.3
	11-15 years	18	15.8
	16-20 years	22	19.3
	21 years and more	22	19.3
Work experience in the company	1-5 years	66	57.9
	6-10 years	26	22.8
	11-15 years	16	14.0
	16-20 years	2	1.8
	21 years and more	4	3.5

As Table 3.2 shows, majority of the participants from the service sector were managers (36.8%). Moreover, most of the participants stated their job status among the managerial ranks such as general manager (7.0%), assistant general manager (3.5%) and assistant manager (10.5%). The rest stated their business as chef (15.8%), staff (15.8%), specialist (5.3%) and other (5.3%). When asked about the total work experience, the largest group was those who had 1-5 years of work experience (26.3%) and the smallest group was who had 11-15 years of work experience (15.8%).

Table 3.3. Respondent profile of the goods retailers (N=60)

Variable	Group	f	%
Job status	Assistant General Manager	3	5.0
	Assistant Manager	3	5.0
	Chef	12	20.0
	General Manager	9	15.0
	Manager	24	40.0
	Specialist	6	10.0
	Staff	3	5.0
Total work experience in the sector	1-5 years	3	5.0
	6-10 years	21	35.0
	11-15 years	12	20.0
	16-20 years	18	30.0
	21 years and more	6	10.0
Work experience in the company	1-5 years	21	35.0
	6-10 years	9	15.0
	11-15 years	24	40.0
	16-20 years	3	5.0
	21 years and more	3	5.0

As with the services retailers, the majority of participants from goods retailers were managers (40.0%) or belonged to other job status related to the managerial work. Different from the service sector, most of the goods retailers had work experience from 6 to 20 years (respectively 35.0%, 20.0% and 30.0%). Majority of the participants' working years in the company were mostly between 1 to 15 years (35.0% for 1-5 years, 15.0% for 6-10 years and 40.0 for 11-15 years groups).

3.3.2 Data Analysis

Before any statistical tests were conducted, an exploratory data analysis done in order to see if there were any missing values, outliers, problems with coding and, most importantly, if the data distribution was normal or not. In order to conduct the hypothesis testing (parametric or non-parametric tests), skewness of the variables was checked (Table 3.4.) with the provision that if the skewness is less than ±1.00, the variable can be assumed approximately normal (Morgan et al., 2004, 57).

Table 3.4. Normality tests results for the items of the questionnaire

Item	N	Min.	Max.	Skewness		Kurtosis	
				Statistic	Std. Error	Statistic	Std. Error
SI_1	174	1	7	-0.548	0.184	-0.580	0.366
SI_2	174	1	7	-0.364	0.184	-0.822	0.366
SI_3	174	1	7	-0.216	0.184	-0.885	0.366
SI_4	174	1	7	-0.079	0.184	-0.767	0.366
SI_5	174	1	7	0.132	0.184	-0.737	0.366
SI_6	174	1	7	0.119	0.184	-0.685	0.366
SII_1	174	1	7	-0.868	0.184	-0.033	0.366
SII_2	174	1	7	-0.578	0.184	0.026	0.366
SII_3	174	1	7	-0.511	0.184	-0.488	0.366
SII_4	174	1	7	-1.003	0.184	0.143	0.366
SII_5	174	1	7	-0.466	0.184	-0.498	0.366
SII_6	174	1	7	-0.213	0.184	-0.720	0.366
SII_7	174	1	7	-0.276	0.184	-0.300	0.366
SII_8	174	1	7	-0.295	0.184	-0.659	0.366
SII_9	174	1	7	-0.510	0.184	-0.353	0.366
SII_10	174	1	7	-0.486	0.184	-0.311	0.366
SII_11	174	1	7	-0.383	0.184	-0.672	0.366
SIII_1	174	1	7	-0.296	0.184	-1.007	0.366
SIII_2	174	1	7	-0.377	0.184	-0.943	0.366
SIII_3	174	1	7	-0.224	0.184	-0.992	0.366
SIII_4	174	1	7	-0.153	0.184	-0.971	0.366
SIII_5	174	1	7	-0.117	0.184	-0.748	0.366
SIII_6	174	1	7	-0.653	0.184	-0.384	0.366
SIII_7	174	1	7	-0.365	0.184	-0.758	0.366
SIII_8	174	1	7	-0.237	0.184	-0.437	0.366
SIII_9	174	1	7	-0.343	0.184	-0.735	0.366
SIII_10	174	1	7	-0.527	0.184	-0.609	0.366
SIV_1	174	1	7	-0.403	0.184	-0.976	0.366
SIV_2	174	1	7	-0.377	0.184	-0.385	0.366
SIV_3	174	1	7	0.068	0.184	-0.184	0.366
SIV_4	174	1	7	-0.195	0.184	-0.570	0.366
SIV_5	174	1	7	-0.264	0.184	-0.661	0.366
SIV_6	174	1	7	-0.001	0.184	-0.514	0.366
SIV_7	174	1	7	-0.285	0.184	-0.614	0.366
SIV_8	174	1	7	-0.246	0.184	-0.742	0.366
SIV_9	174	1	7	-0.346	0.184	-0.234	0.366
SIV_10	174	1	7	-0.180	0.184	-0.540	0.366
SV_1	174	1	7	0.281	0.184	-0.885	0.366
SV_2	174	1	7	-0.024	0.184	-0.958	0.366
SV_3	174	1	7	-0.013	0.184	-0.866	0.366
SV_4	174	1	7	0.692	0.184	-0.282	0.366
SV_5	174	1	7	0.048	0.184	-0.771	0.366
SV_6	174	1	7	-0.096	0.184	-0.766	0.366
SV_7	174	1	7	0.069	0.184	-0.662	0.366
SV_8	174	2	7	0.141	0.184	-0.804	0.366
SV_9	174	1	7	0.215	0.184	-0.626	0.366
SV_10	174	2	7	0.157	0.184	-0.809	0.366

As summarized in Table 3.4, almost for all the variables, skewness was less than ±1,00 except for item 4 (Section II). However, since the skewness statistic was barely over -1.00 (-1.003), it was concluded that all the variables distributed normally. Thus, for hypothesis testing, the independent sample t-test (parametric test) was used in order to assess if the scores of the two groups (goods and service retailers) were significantly different.

3.4 Study Process

A diagrammed outline of the study process flow for the quantitative study complete with the tested hypotheses is presented below (Figure 3.1).

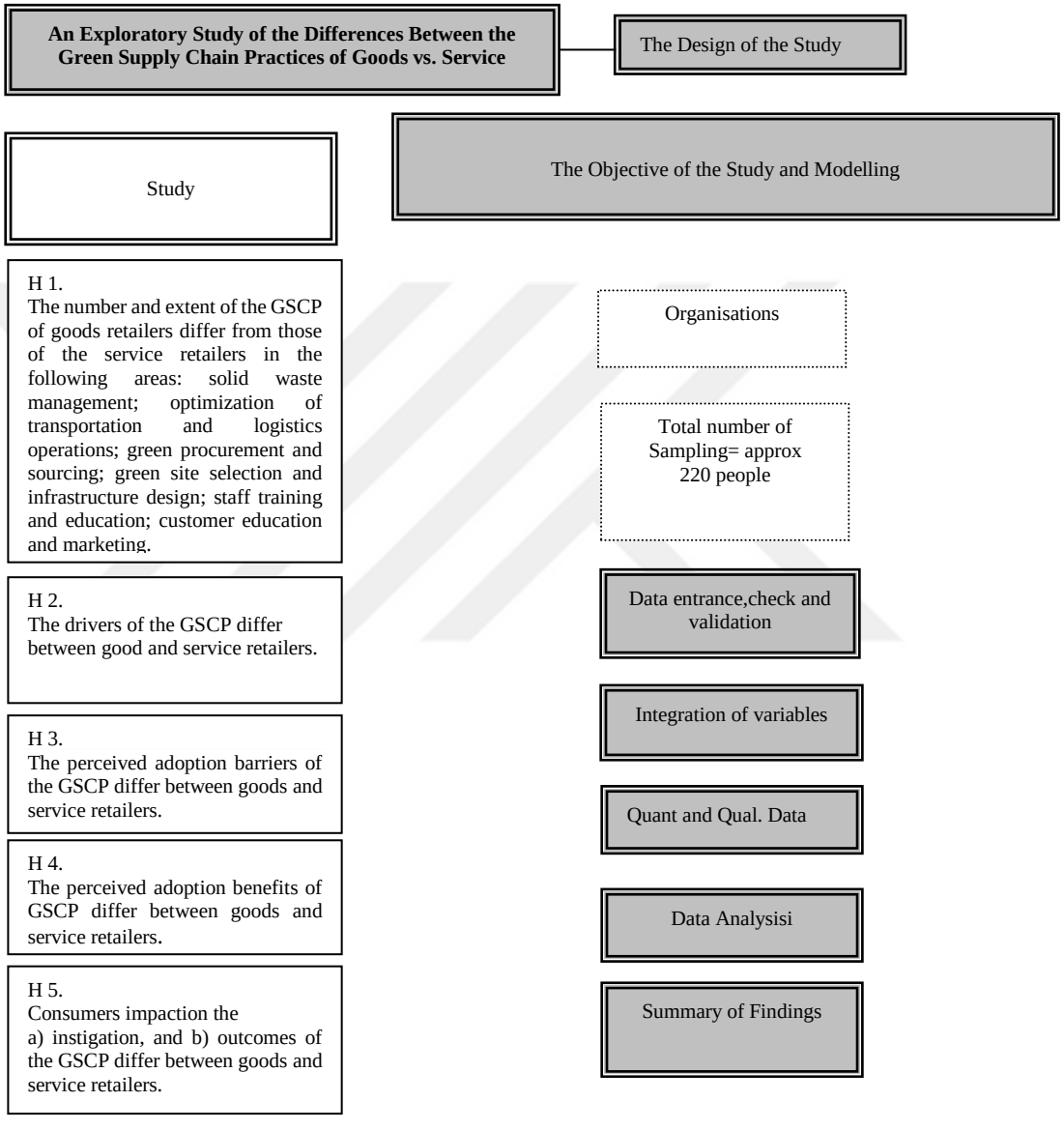


Fig 3.1. Study Process

CHAPTER FOUR

4. FINDINGS

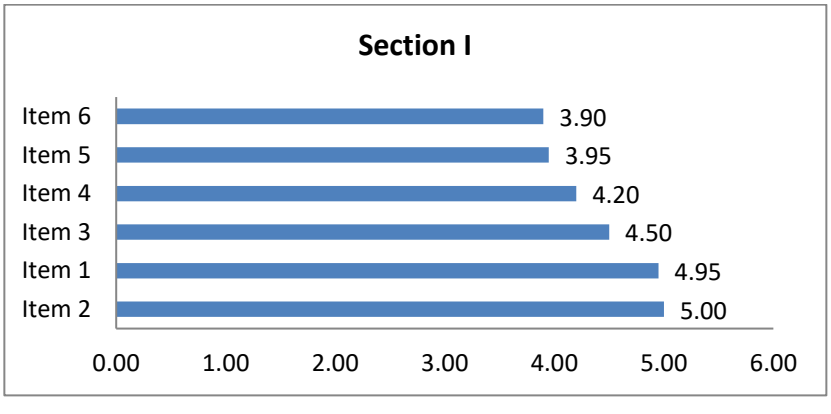
This chapter presents the results of the data analysis from the retailers of services and goods in order to investigate if there are significant differences between them with respect to barriers, drivers and outcomes of their GSCP as well as to examine the critical role that customers play in this context.

4.1. Extent and Nature of GSCP Implementation

4.1.1. Extent and Nature of GSCP Implementation Among the Goods Retailers

Table 4.1. Goods Retailers' Extent of Current GSCP Implementation (N=60)

Item	Mean	SD
1. Solid waste management	4.95	1.44
2. Optimization of transportation and logistics operations	5.00	1.43
3. Green procurement and sourcing	4.50	1.44
4. Green site selection and infrastructure design	4.20	1.48
5. Staff training and education	3.95	1.33
6. Customer education and marketing	3.90	1.31



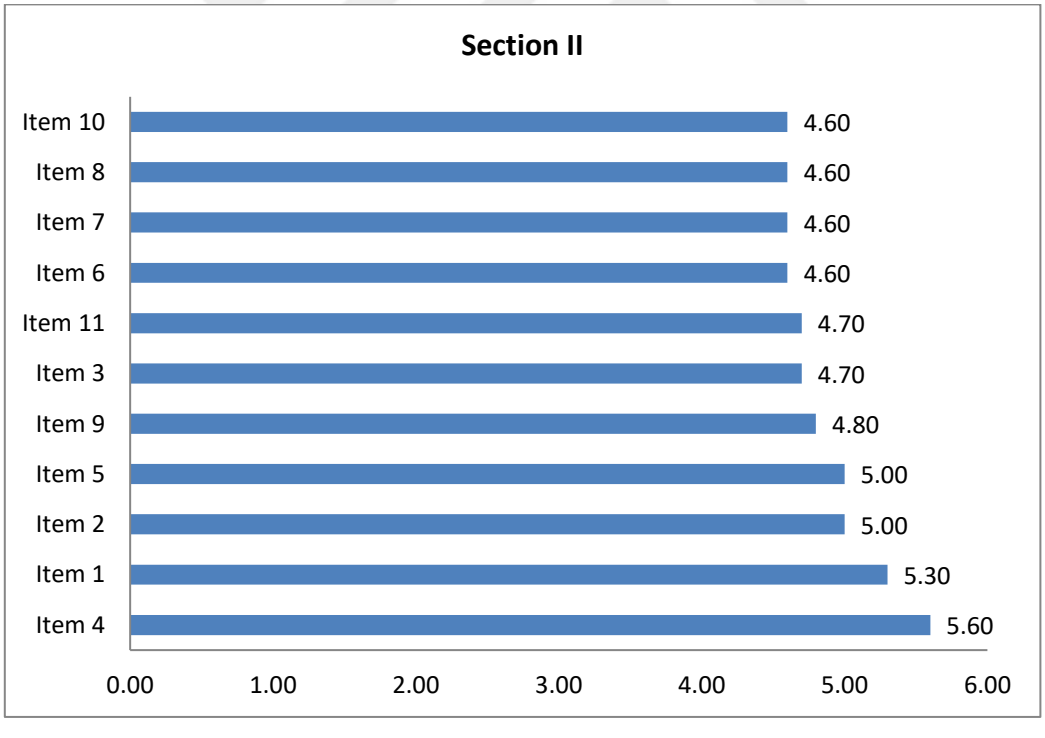
Graph 4.1. Goods Retailers' Mean Scores from Lowest to Highest for the Current GSCP Implementation in Their Company

A total of six items were used to explore the current GSCP implementation of goods retailers in their company on a seven point Likert scale ranging from 1=Not at All to 7=Extremely high. As can be seen from Table 4.1 and Graph 4.1, their evaluation of the current GSCP implementation in company ranges from 3.90±1.44 (for item 6) to 5.00±1.43 (for item 2). According to goods retailers, the

weakest GSCP implementation subject in their company is *"Customer education and marketing*" and the strongest GSCP implementation" *Optimization of transportation and logistics operations*". In addition, solid waste management is another important subject related to GSCP in the company (4.95±1.44). On the other hand, staff training and education emerges as a weak point in the GSCP implementation (3.95±1.33). In sum, the mean scores for current GSCP implementation in goods retailers seems to be above average.

Table 4.2. Goods Retailers Perceptions of Drivers of the Current GSCP Implementation (N=60)

Item	Mean	SD
1. Top management leadership, commitment and support	5.30	1.11
2. Environmental legislations and regulations	5.00	1.11
3. Enhancement of corporate image and brand equity	4.70	1.24
4. Realization of return on investment through cost savings	5.60	1.21
5. Development of innovative technologies, processes and products	5.00	1.19
6. Pressure from competitors' actions	4.60	1.17
7. Pressure from consumers and lobby groups	4.60	1.17
8. Pressure from supply chain members	4.60	1.29
9. Reduction in risk of disruptions in energy and raw material supply	4.80	1.18
10. Reduction in legal risks	4.60	1.25
11. Increase in disclosure requirements for sustainability policies and practices	4.70	1.32

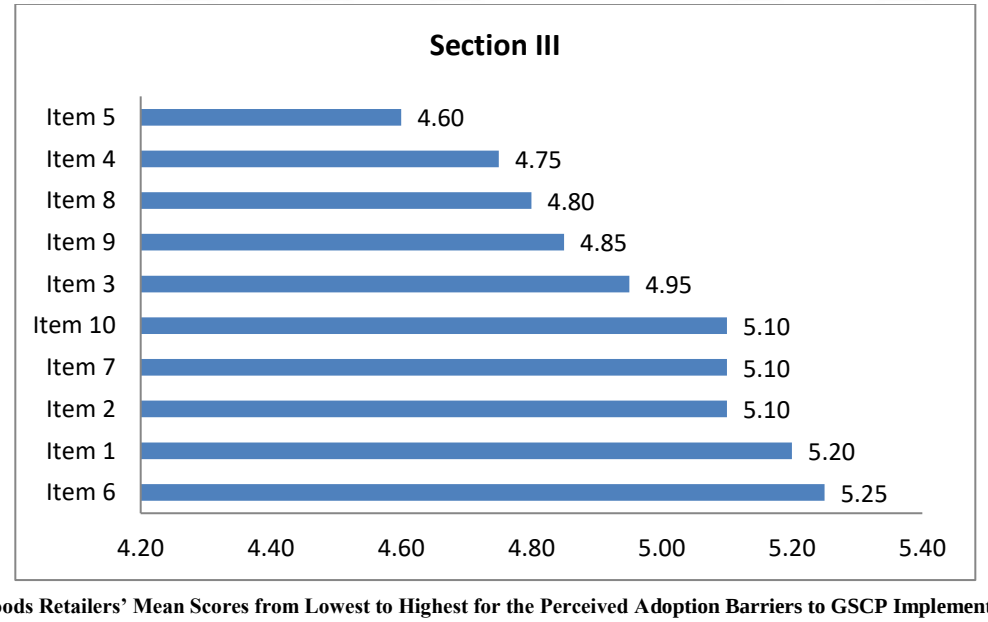


Graph 4.2. Goods Retailers' Mean Scores from Lowest to Highest for the Drivers of the Current GSCP Implementation in Their Company

A total of 11 items asked to participants about the drivers of the current GSCP implementation in their company on a seven point Likert scale ranging from 1=Not Influential at All to 7=Extremely Influential. In general, the scores the vary from 4.60±1.17/1.25/1.29 (for items 6, 7, 10, 8) to 5.60±1.21 (for item 4) as seen in Table 4.2 and Graph 4.2. According to goods retailers, the weakest drivers of the current GSCP implementation in their company are "*Pressure from competitors' actions*", "*Pressure from consumers and lobby groups*", "*Reduction in legal risks*" and "*Pressure from supply chain members*". The most important drivers of the current GSCP implementation emerge as "*Realization of return on investment through cost savings*" and "*Top management leadership, commitment and support*".

Table 4.3. Goods Retailers' Perceived Adoption Barriers to GSCP Implementation (N=60)

Item	Mean	SD
1. Lack of top management leadership, commitment and support	5.20	0.99
2. Lack of knowledge and expertise	5.10	1.00
3. Resistance to change	4.95	1.03
4. Lack of greening initiatives	4.75	1.14
5. Lack of feasible greening technologies	4.60	1.12
6. High initial investment and costs	5.25	0.95
7. Lack of return on investment	5.10	0.95
8. Lack of understanding among supply chain stakeholders	4.80	0.99
9. Lack of customer awareness and demand	4.85	1.02
10. Lack of governmental support	5.10	0.95



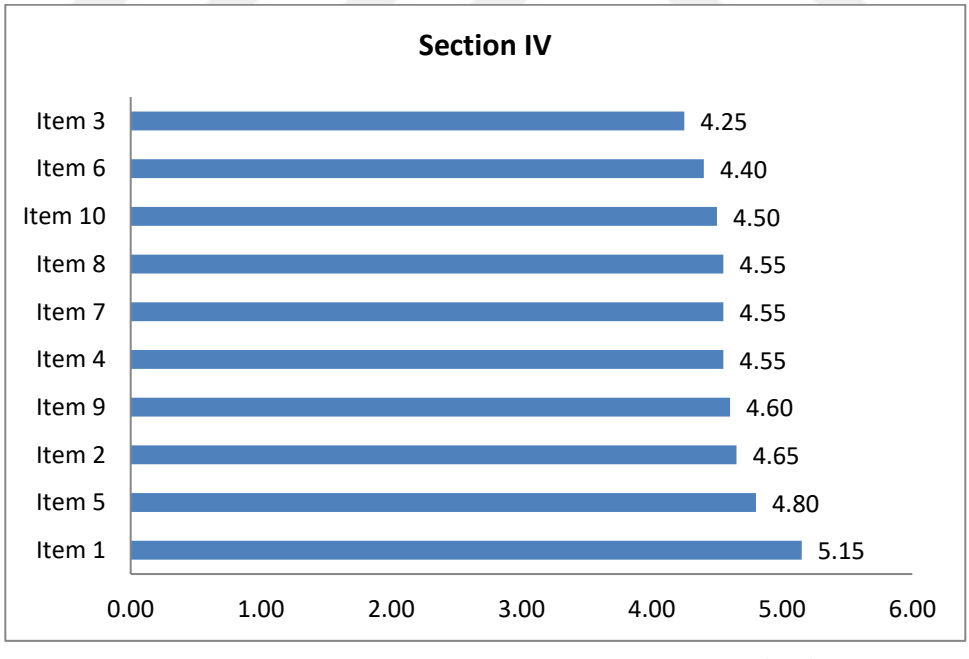
Graph 4.3. Goods Retailers' Mean Scores from Lowest to Highest for the Perceived Adoption Barriers to GSCP Implementation in Their Company

A total of 10 items asked participants about the perceived adoption barriers to GSCP implementation in their company on a seven point Likert scale ranging from 1=Not at All a Barrier to 7=Extremely

High Barrier. The scores are well above the average ranging from 4.60±1.12 (for item 5) to 5.25±0.95 (for item 6) as seen from the Table 4.3 and Graph 4.3. The most important or the highest perceived adoption barrier to GSCP implementation is about cost "*High initial investment and costs*"; and the second most important one is "*Lack of top management leadership, commitment and support*" (5.20±0.99). On the other hand, the least important perceived adoption barriers to GSCP implementation are "*Lack of feasible greening technologies*" and "*Lack of greening initiatives*". But even the lowest mean scores of the items seems to be high which means that, in general, participants of the study had found adoption barriers to GSCP implementation in their company to be serious.

Table 4.4. Goods Retailers' Perceived Adoption Benefits of GSCP Implementation(N=60)

Item	Mean	SD
1. Operating cost savings	5.15	1.21
2. Increase in customer loyalty and market attraction	4.65	1.21
3. Increase in employee attraction and retention	4.25	1.27
4. Improvement in supplier relationships	4.55	1.17
5. Innovation and development of new technologies, products and processes	4.80	1.13
6. Increase in profitability and shareholder value	4.40	1.17
7. Strategic differentiation and competitive advantage	4.55	1.21
8. Pre-empt future government regulations	4.55	1.21
9. Improvement in corporate image with shareholder and the public	4.60	1.21
10. Reduction in legal and insurance costs	4.50	1.17



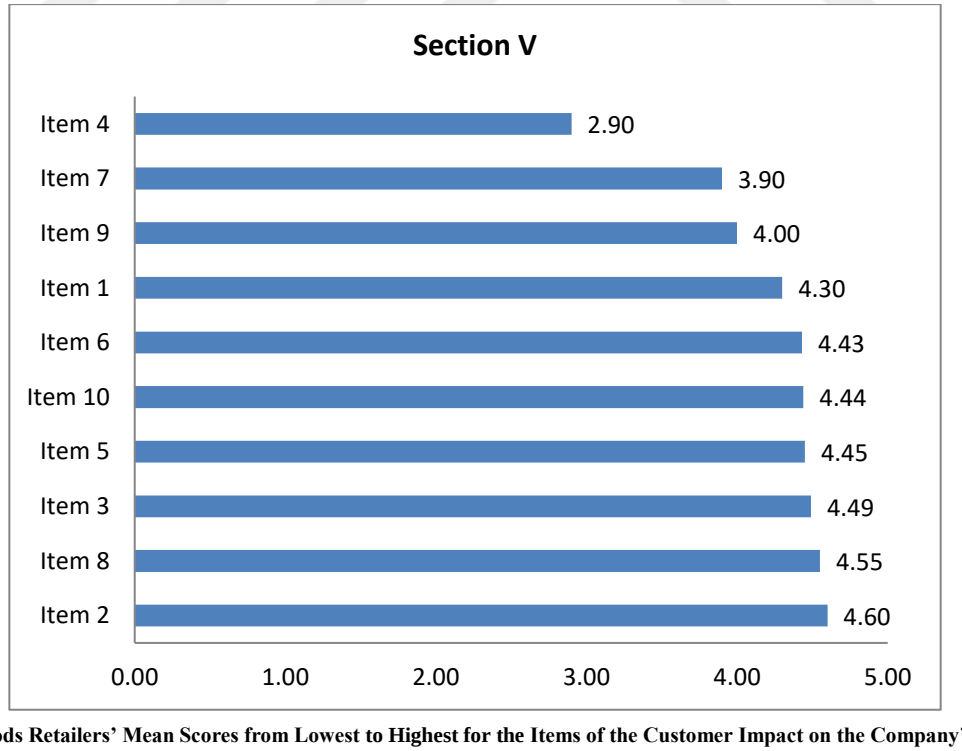
Graph 4.4. Goods Retailers' Mean Scores from Lowest to Highest for the Perceived Adoption Benefits of GSCP Implementation in Their Company

A total 10 items asked participants about the perceived adoption benefits of GSCP implementation in their company on a seven point Likert scale ranging from 1=Not at All a Benefit to 7=Extremely

High Benefit. The scores ranged from 4.25±1.27 (for item 3) to 5.15±1.21 (for item 1) as seen from the Table 4.4 and Graph 4.4. According to the participants, the most important or the highest perceived adoption benefit of GSCP implementation is about cost "*Operating cost savings*", and the least important perceived adoption benefit of GSCP implementation is "*Increase in employee attraction and retention*". As a whole, when all the items are considered together, the general perception of the participants about the benefits of GSCP implementation in their company seems to be very positive.

Table 4.5. Goods Retailers' Perceptions of the Customer Impact on Company's Adoption of GSCP (N=60)

Item	Mean	SD
1. Most of the customers question your company's environmental sensitivity.	4.30	1.28
2. Most of the customers find your company's environmental sensitivity necessary.	4.60	1.28
3. Most of the customers think your company's environmental sensitivity should be better than competitors'.	4.49	1.30
4. Most of the customers are not really interested in your company's environmental sensitivity.	2.90	1.05
5. In general, your customers greatly affect the green environmental practices of your company	4.45	1.29
6. Most of the customers appreciate the willingness of your company's efforts to develop an environmental policy.	4.43	1.31
7. Most of the customers build a dialogue with your company about its green practices	3.90	1.27
8. Most of the customers are influenced by the company's reputation with respect to its environmental policy	4.55	1.23
9. Most of the customers have environmental values that impact your company's green policy	4.00	1.28
10. Your customers' opinions shape the environmental image that your company has.	4.44	1.25



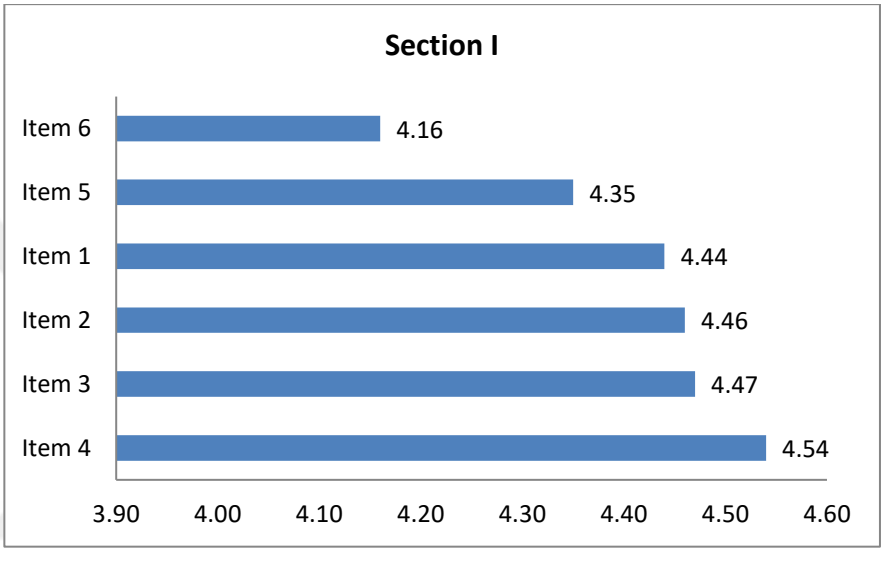
Graph 4.5. Goods Retailers' Mean Scores from Lowest to Highest for the Items of the Customer Impact on the Company's Adoption of GSCP

A total of 10 items asked participants about the customer impact on company's adoption of GSCP on a seven point Likert scale ranging from 1=Absolutely Disagree to 7=Absolutely Agree. Nine items are positively worded while one item (item 4) is negatively worded in this section. Not surprisingly, the lowest mean score (2.90±1.05) emerges for this item ("*Most of the customers are not really interested in your company's environmental sensitivity*."), reflecting the disagreement of the participants with the statement. For the remaining items, the scores ranges from 3.90±1.27 (for item 7) to 4.60±1.28 (for item 2) as can be seen from the Table 4.5 and Graph 4.5. The most important or the highest scored item is "*Most of the customers find your company's environmental sensitivity necessary*", and the least important item is "*Most of the customers build a dialogue with your company about its green practices*". As a whole, when all the items considered together, the general perception of the participants about the customer impact on company's adoption of GSCP in their company seems to be moderately to very important.

4.1.2. Extent and Nature of GSCP Implementation Among the Service Retailers

Table 4.6. Service Retailers' Perceptions of the Current GSCP Implementation (N=114)

Item	Mean	SD
1. Solid waste management	4.44	1.65
2. Optimization of transportation and logistics operations	4.46	1.60
3. Green procurement and sourcing	4.47	1.60
4. Green site selection and infrastructure design	4.54	1.56
5. Staff training and education	4.35	1.60
6. Customer education and marketing	4.16	1.63

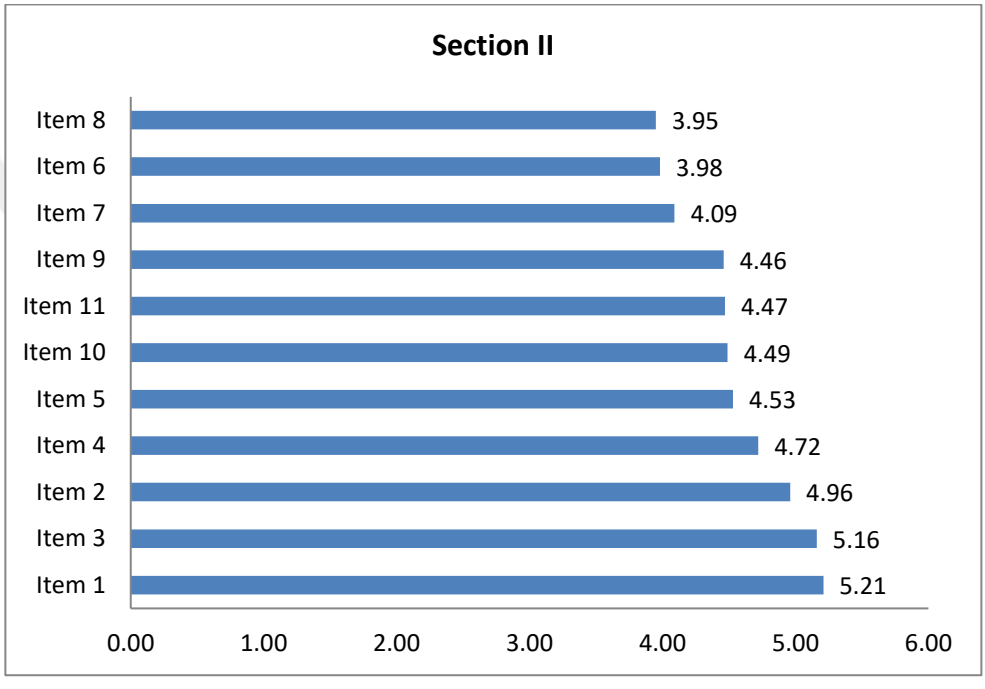


Graph 4.6. Service Retailers' Mean Scores from Lowest to Highest for the Current GSCP Implementation in Their Company

A total of six items asked service retailers about the current GSCP implementation in their company on a seven point Likert scale ranging from 1=Not at All to 7=Extremely high. Participants' evaluation of the current GSCP implementation in their company ranges from 4.16±1.63 (for item 6) to 4.54±1.56 (for item 4) (Table 4.6 and Graph 4.6). According to service retailers, the two weakest GSCP implementation subjects in their company are "*Customer education and marketing*" and "*Staff training and education*". While the strongest GSCP implementation subject was "*Green site selection and infrastructure design*". As a whole, considering all the six items together, it seems that current GSCP implementations among the study participants from the service sector are taken seriously.

Table 4.7. Service Retailers' Perceptions of the Drivers of the Current GSCP Implementations (N=114)

Item	Mean	SD
1. Top management leadership, commitment and support	5.21	1.66
2. Environmental legislations and regulations	4.96	1.45
3. Enhancement of corporate image and brand equity	5.16	1.57
4. Realization of return on investment through cost savings	4.72	1.77
5. Development of innovative technologies, processes and products	4.53	1.54
6. Pressure from competitors' actions	3.98	1.60
7. Pressure from consumers and lobby groups	4.09	1.47
8. Pressure from supply chain members	3.95	1.60
9. Reduction in risk of disruptions in energy and raw material supply	4.46	1.62
10. Reduction in legal risks	4.49	1.55
11. Increase in disclosure requirements for sustainability policies and practices	4.47	1.50

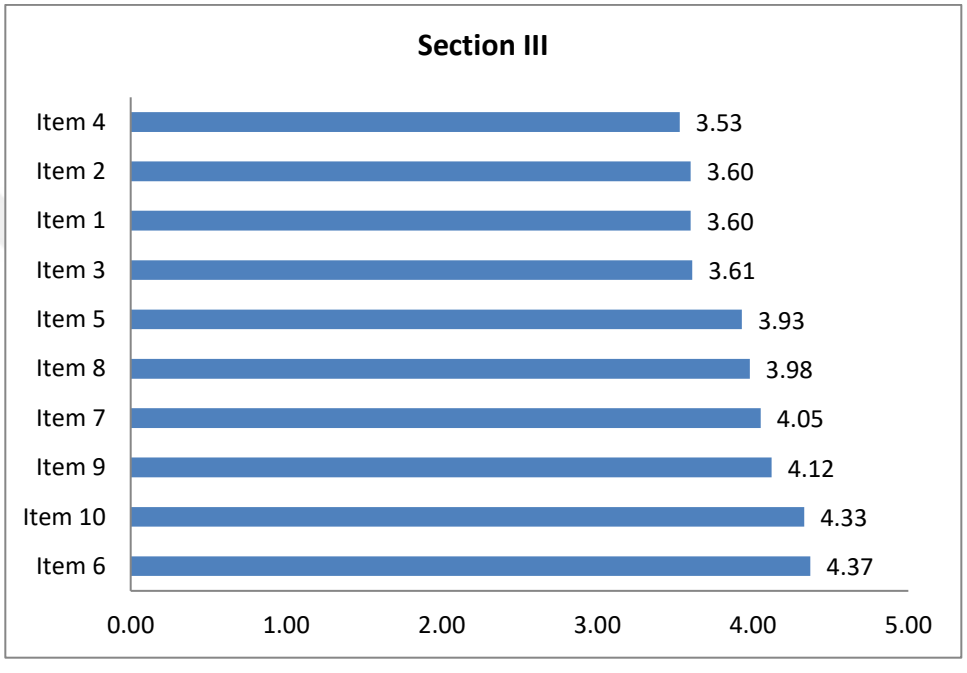


Graph 4.7. Service Retailers' Mean Scores from Lowest to Highest for the Drives of the Current GSCP Implementation in Their Company

A total of 11 items asked service retailers about the drivers of the current GSCP implementation in their company on a seven point Likert scale ranging from 1=Not Influential at All to 7=Extremely Influential. In general, the scores were moderately high ranged from 3.95±1.30 (for items 8) to 5.21±1.66 (for item 1) as seen in Table 4.7 and Graph 4.7. According to service retailers the least important drive of the current GSCP implementation in their company is "*Pressure from supply chain members*", and the most important drives of the current GSCP implementation are "*Top management leadership, commitment and support*" and "*Enhancement of corporate image and brand equity*".

Table 4.8. Service Retailers' Perceived Adoption Barriers to GSCP Implementation (N=114)

Item	Mean	SD
1. Lack of top management leadership, commitment and support	3.60	1.98
2. Lack of knowledge and expertise	3.60	1.85
3. Resistance to change	3.61	2.00
4. Lack of greening initiatives	3.53	1.90
5. Lack of feasible greening technologies	3.93	1.66
6. High initial investment and costs	4.37	1.85
7. Lack of return on investment	4.05	1.79
8. Lack of understanding among supply chain stakeholders	3.98	1.61
9. Lack of customer awareness and demand	4.12	1.82
10. Lack of governmental support	4.33	1.87

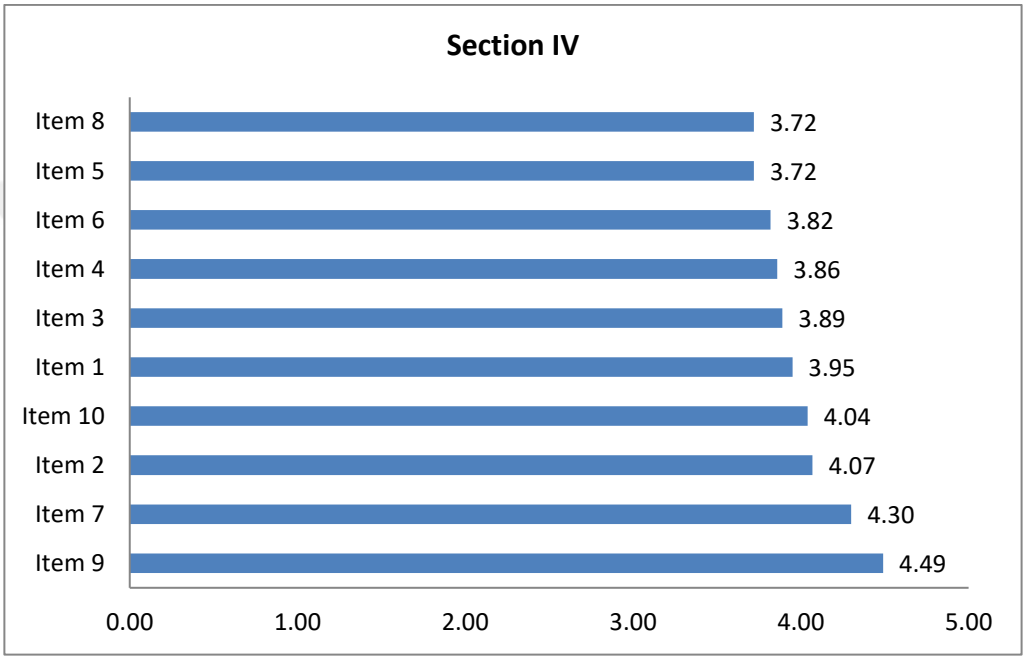


Graph 4.8. Service Retailers' Mean Scores from Lowest to Highest for the Perceived Adoption Barriers to GSCP Implementation in Their Company

A total of 10 items asked service retailers about the perceived adoption barriers to GSCP implementation in their company on a seven point Likert scale ranging from 1=Not at All a Barrier to 7=Extremely High Barrier. The scores ranged from 3.53±1.90 (for item 4) to 4.37±1.85 (for item 6) as can be seen in Table 4.8 and Graph 4.8. According to participants, the most important or the highest perceived adoption barriers to GSCP implementation is cost "*High initial investment and costs*", and the second most important one is "*Lack of governmental support*" (4.33±1.87). On the other hand, according to service retailers, the least important perceived adoption barrier to GSCP implementation was "*Lack of greening initiatives*".

Table 4.9. Service Retailers' Perceived Adoption Benefits of GSCP Implementation (N=114)

Item	Mean	SD
1. Operating cost savings	3.95	1.62
2. Increase in customer loyalty and market attraction	4.07	1.63
3. Increase in employee attraction and retention	3.89	1.48
4. Improvement in supplier relationships	3.86	1.53
5. Innovation and development of new technologies, products and processes	3.72	1.58
6. Increase in profitability and shareholder value	3.82	1.68
7. Strategic differentiation and competitive advantage	4.30	1.66
8. Pre-empt future government regulations	3.72	1.57
9. Improvement in corporate image with shareholder and the public	4.49	1.56
10. Reduction in legal and insurance costs	4.04	1.52

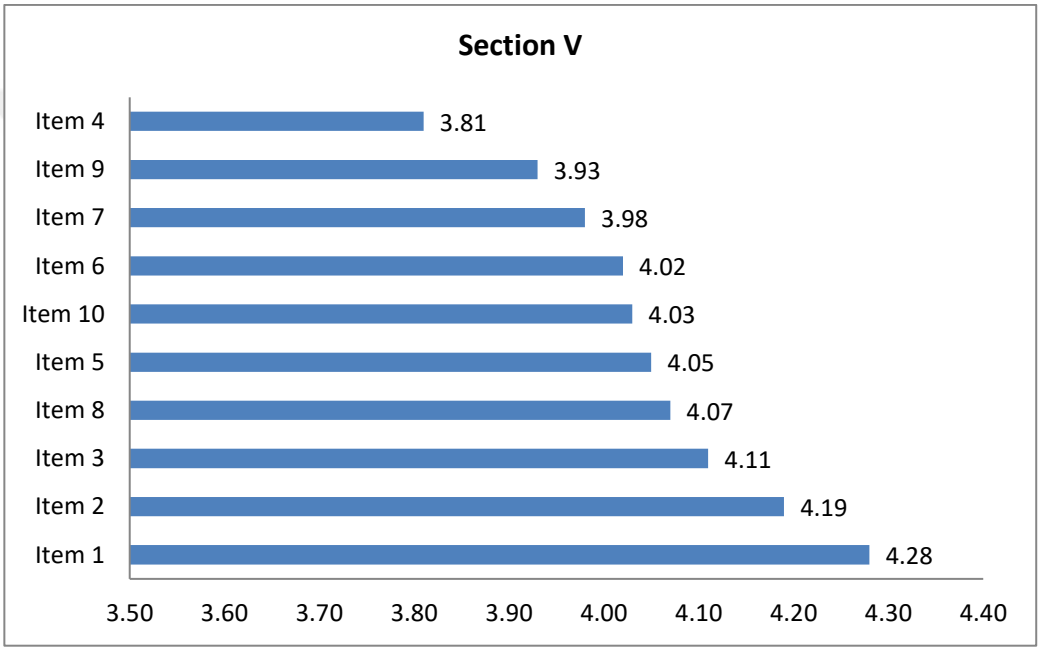


Graph 4.9. Service Retailers' Mean Scores from Lowest to Highest for the Perceived Adoption Benefits of GSCP Implementation in Their Company

A total of 10 items asked service retailers about the perceived adoption benefits of the GSCP implementation in their company on a seven point Likert scale ranging from 1=Not at All a Benefit to 7=Extremely High Benefit. The scores ranged from 3.72±1.57 (for item 8) to 4.49±1.56 (for item 9) as seen in Table 4.9 and Graph 4.9. According to service retailers, the most important or the highest perceived adoption benefit of GSCP implementation is about image of the company "*Improvement in corporate image with shareholder and the public*", and the least important one is "*Pre-empt future government regulations*". As a whole, when all the items are taken together, the general perception of the service retailers about the benefits of GSCP implementation in their company seems moderately positive.

Table 4.10. Service Retailers' Perceptions of the Customer Impact on Company's Adoption of GSCP (N=114)

Item	Mean	SD
1. Most of the customers question your company's environmental sensitivity.	4.28	1.74
2. Most of the customers find your company's environmental sensitivity necessary.	4.19	1.71
3. Most of the customers think your company's environmental sensitivity should be better than competitors'.	4.11	1.71
4. Most of the customers are not really interested in your company's environmental sensitivity.	3.81	1.58
5. In general, your customers greatly affect the green environmental practices of your company	4.05	1.57
6. Most of the customers appreciate the willingness of your company's efforts to develop an environmental policy.	4.02	1.56
7. Most of the customers build a dialogue you're your company about its green practices	3.98	1.56
8. Most of the customers are influenced by the company's reputation with respect to its environmental policy	4.07	1.61
9. Most of the customers have environmental values that impact your company's green policy	3.93	1.50
10. Your customers' opinions shape the environmental image that your company has.	4.03	1.52



Graph 4.10. Service Retailers' Mean Scores from Lowest to Highest for the Items of the Customer Impact on the Company's Adoption of GSCP

A total of 10 items asked service retailers about the customer impact on company's adoption of GSCP on a seven point Likert scale ranging from 1=Absolutely Disagree to 7=Absolutely Agree. Nine items were positively worded while one item (item 4) negatively worded in this section. The lowest mean score (3.81±1.58) in this section is for item 4 ("*Most of the customers are not really interested in your company's environmental sensitivity.*"). For the other items, the scores ranged from 3.93±1.50 (for item 9) to 4.28±1.74 (for item 1) as can be seen from the Table 4.10 and Graph 4.10. According to service retailers, the most important item about the customer impact is "*Most of the customers question your company's environmental sensitivity*", and the least important item emerges as item 9: "*Most of the customers have environmental values that impact your company's*

green policy". As a whole, when all the items are considered together, the general perception of the participants about the customer impact on company's adoption of GSCP in their company seems to be moderately important.

4.2. Comparison of Goods and Service Retailers Scores of the Green Supply Chain Practices

In this section, the below hypotheses were tested by comparing scores of the participants of the goods and service retailers by using the independent samples t-test statistics technique.

H1. The number and extent of the GSCP of goods retailers differ from those of the service retailers in the following areas: solid waste management; optimization of transportation and logistics operations; green procurement and sourcing; green site selection and infrastructure design; staff training and education; customer education and marketing.

H2. The drivers of the GSCP differ between good retailers and service retailers.

H3. The perceived adoption barriers of the GSCP differ between goods retailers and service retailers.

H4. The perceived adoption benefits of GSCP differ between goods retailers and service retailers.

H5. Consumers impaction the a) instigation, and b) outcomes of the GSCP differ between goods retailers and service retailers.

Table 4.11 Comparison of goods and service retailers' scores on the current GSCP implementation in their companies (N=174)

Item	Industry sector	Descriptive Statistics			t-test		
		n	Mean	Std. D.	t	df	p
1. Solid waste management	Service	114	4.44	1.65	2.03	172	0.044*
	Goods	60	4.95	1.44			
2. Optimization of transportation and logistics operations	Service	114	4.46	1.60	2.21	172	0.028*
	Goods	60	5.00	1.43			
3. Green procurement and sourcing	Service	114	4.47	1.60	0.11	172	0.915
	Goods	60	4.50	1.44			
4. Green site selection and infrastructure design	Service	114	4.54	1.56	1.40	172	0.162
	Goods	60	4.20	1.48			
5. Staff training and education	Service	114	4.35	1.60	1.66	172	0.099
	Goods	60	3.95	1.33			
6. Customer education and marketing	Service	114	4.16	1.63	1.06	172	0.291
	Goods	60	3.90	1.31			

*$p<.05$

Table 4.11 shows that goods retailers' scores are significantly different from service retailers' scores as follows [$t_{(172)} = 2.03$; $p<.05$] and 2 [$t_{(172)} = 2.21$; $p<.05$]:

- Inspection of the two group means indicates that goods retailers' current *solid waste management* implementation level is significantly higher than the service retailers' implementation level ($\overline{X}_{Service}=4.44$ and $\overline{X}_{Goods}=4.95$).
- Again, two group means indicates that goods retailers' current *optimization of transportation and logistics* implementation level is significantly higher than the service retailers' implementation level ($\overline{X}_{Service}=4.46$ and $\overline{X}_{Goods}=5.00$).

So, while the hypothesis (H1) for solid waste management, optimization of transportation, and logistics operations is accepted, it was rejected for green procurement and sourcing, green site selection and infrastructure design, staff training and education and customer education and marketing.

Table 4.12 Comparison of goods and service retailers' scores on drivers of the current GSCP implementation in their companies (N=174)

Items	Industry sector	Descriptive Statistics			t-test		
		n	Mean	Std. D.	t	df	p
1. Top management leadership, commitment and support	Service	114	5.21	1.66	0.38	172	0.708
	Goods	60	5.30	1.11			
2. Environmental legislations and regulations	Service	114	4.96	1.45	0.16	172	0.870
	Goods	60	5.00	1.11			
3. Enhancement of corporate image and brand equity	Service	114	5.16	1.57	2.02	172	0.048*
	Goods	60	4.70	1.24			
4. Realization of return on investment through cost savings	Service	114	4.72	1.77	3.45	172	0.001**
	Goods	60	5.60	1.21			
5. Development of innovative technologies, processes and products	Service	114	4.53	1.54	2.08	172	0.039*
	Goods	60	5.00	1.19			
6. Pressure from competitors' actions	Service	114	3.98	1.60	2.64	172	0.009**
	Goods	60	4.60	1.17			
7. Pressure from consumers and lobby groups	Service	114	4.09	1.47	2.34	172	0.021*
	Goods	60	4.60	1.17			
8. Pressure from supply chain members	Service	114	3.95	1.60	2.72	172	0.007**
	Goods	60	4.60	1.29			
9. Reduction in risk of disruptions in energy and raw material supply	Service	114	4.46	1.62	1.46	172	0.148
	Goods	60	4.80	1.18			
10. Reduction in legal risks	Service	114	4.49	1.55	0.47	172	0.640
	Goods	60	4.60	1.25			
11. Increase in disclosure requirements for sustainability policies and practices	Service	114	4.47	1.50	0.99	172	0.325
	Goods	60	4.70	1.32			

**p<.05 and **p<.01*

Table 4.12 shows that goods retailers' scores are significantly different from service retailers' scores as follows [$t_{(172)}$ =2.02; p<.05], 4 [$t_{(172)}$ =3.45; p<.01], 5 [$t_{(172)}$ =2.08; p<.05], 6 [$t_{(172)}$ =2.64; p<.01], 7 [$t_{(172)}$ =2.34; p<.05] and 8 [$t_{(172)}$ =2.72; p<.01]:

- Inspection of the two group means indicates that service retailers' *enhancement of corporate image and brand equity* drive level is significantly higher than the goods retailers' driver level ($\overline{X}_{Service}$=5.16 and $\overline{X}_{Goods}$=4.70).
- Goods retailers' driver, *realization of return on investment through cost savings,* is significantly higher than that of the service retailers' ($\overline{X}_{Service}$=4.72 and $\overline{X}_{Goods}$=5.60).
- Goods retailers' driver, *development of innovative technologies, processes and products,* is significantly higher than that of the service retailers' ($\overline{X}_{Service}$=4.53 and $\overline{X}_{Goods}$=5.00).

- Goods retailers' driver, *pressure from competitors' actions*, is significantly higher than that of the service retailers' ($\overline{X}_{Service}$=3.98 and $\overline{X}_{Goods}$=4.60).
- Goods retailers' driver, *pressure from consumers and lobby groups,* is significantly higher than the service retailers' ($\overline{X}_{Service}$=4.09 and $\overline{X}_{Goods}$=4.60).
- Goods retailers' driver, *pressure from supply chain members,* is significantly higher than the service retailers' ($\overline{X}_{Service}$=3.95 and $\overline{X}_{Goods}$=4.60).

So, while the hypothesis (H2) was accepted for items 3, 4, 5, 6, 7 and 8; it was rejected for items 1, 2, 9, 10 and 11.

Table 4.13 Comparison of goods and service retailers' scores on perceived adoption barriers to GSCP implementation in their companies (N=174)

Items	Industry sector	Des. Statistics			t-test		
		n	Mean	Std. D.	t	df	p
1. Lack of top management leadership, commitment and support	Service	114	3.60	1.98	5.89	172	0.000***
	Goods	60	5.20	0.99			
2. Lack of knowledge and expertise	Service	114	3.60	1.85	5.85	172	0.000***
	Goods	60	5.10	1.00			
3. Resistance to change	Service	114	3.61	2.00	4.85	172	0.000***
	Goods	60	4.95	1.03			
4. Lack of greening initiatives	Service	114	3.53	1.90	4.57	172	0.000***
	Goods	60	4.75	1.14			
5. Lack of feasible greening technologies	Service	114	3.93	1.66	2.81	172	0.006**
	Goods	60	4.60	1.12			
6. High initial investment and costs	Service	114	4.37	1.85	3.46	172	0.001**
	Goods	60	5.25	0.95			
7. Lack of return on investment	Service	114	4.05	1.79	4.23	172	0.000***
	Goods	60	5.10	0.95			
8. Lack of understanding among supply chain stakeholders	Service	114	3.98	1.61	3.59	172	0.000***
	Goods	60	4.80	0.99			
9. Lack of customer awareness and demand	Service	114	4.12	1.82	2.87	172	0.005**
	Goods	60	4.85	1.02			
10. Lack of governmental support	Service	114	4.33	1.87	2.98	172	0.003**
	Goods	60	5.10	0.95			

***p<.01 and ***p<.001*

Table 4.13 shows that goods retailers' scores were significantly different from service retailers' scores on all 10 items.

- Item 1 [$t_{(172)}$ =5.89; p<.001]: Inspection of the two group means indicates that goods retailers see *lack of top management leadership, commitment and support* as a barrier significantly higher than service retailers ($\overline{X}_{Service}$=3.60 and $\overline{X}_{Goods}$=5.20).
- Item 2 [$t_{(172)}$ =5.85; p<.001]: Inspection of the two group means indicates that goods retailers see *lack of knowledge and expertise* as a barrier significantly higher than the service retailers ($\overline{X}_{Service}$=3.60 and $\overline{X}_{Goods}$=5.10).
- Item 3 [$t_{(172)}$ =4.85; p<.001]: Inspection of the two group means indicates that goods retailers see *resistance to change* as a barrier significantly higher than service retailers ($\overline{X}_{Service}$=3.61 and $\overline{X}_{Goods}$=4.95).

- Item 4 [$t_{(172)}$ =4.57; p<.001]: Inspection of the two group means indicates that goods retailers see *lack of greening initiatives* as a barrier significantly higher than service retailers ($\overline{X}_{Service}$=3.53 and $\overline{X}_{Goods}$=4.75).
- Item 5 [$t_{(172)}$ =2.81; p<.01]: Inspection of the two group means indicates that goods retailers see *lack of feasible greening technologies* as a barrier significantly higher than service retailers ($\overline{X}_{Service}$=3.93 and $\overline{X}_{Goods}$=4.60).
- Item 6 [$t_{(172)}$ =3.46; p<.01]: Inspection of the two group means indicates that goods retailers see *high initial investment and costs* as a barrier significantly higher than the service retailers ($\overline{X}_{Service}$=4.37 and $\overline{X}_{Goods}$=5.25).
- Item 7 [$t_{(172)}$ =4.23; p<.001]: Inspection of the two group means indicates that goods retailers see *lack of return on investment* as a barrier significantly higher than the service retailers ($\overline{X}_{Service}$=4.05 and $\overline{X}_{Goods}$=5.10).
- Item 8 [$t_{(172)}$ =3.59; p<.001]: Inspection of the two group means indicates that goods retailers see *lack of understanding among supply chain stakeholders* as a barrier significantly higher than service retailers' ($\overline{X}_{Service}$=3.98 and $\overline{X}_{Goods}$=4.80).
- Item 9 [$t_{(172)}$ =2.87; p<.01]: Inspection of the two group means indicates that goods retailers see *lack of customer awareness and demand* as a barrier significantly higher than the service retailers ($\overline{X}_{Service}$=4.12 and $\overline{X}_{Goods}$=4.85).
- Item 10 [$t_{(172)}$ =2.98; p<.01]: Inspection of the two group means indicates that goods retailers see *lack of governmental support* as a barrier significantly higher than the service retailers ($\overline{X}_{Service}$=4.33 and $\overline{X}_{Goods}$=5.10).

So, hypothesis (H3) was accepted for the all the 10 items: The perceived adoption barriers of the GSCP differ between goods retailers and service retailers.

Table 4.14 Comparison of goods and service retailers' scores on perceived adoption benefits of GSCP implementation in their companies (N=174)

Items	Industry sector	Descriptive Statistics			t-test		
		n	Mean	Std. D.	t	df	p
1. Operating cost savings	Service	114	3.95	1.62	5.05	172	0.000***
	Goods	60	5.15	1.21			
2. Increase in customer loyalty and market attraction	Service	114	4.07	1.63	2.43	172	0.016*
	Goods	60	4.65	1.21			
3. Increase in employee attraction and retention	Service	114	3.89	1.48	1.58	172	0.116
	Goods	60	4.25	1.27			
4. Improvement in supplier relationships	Service	114	3.86	1.53	3.05	172	0.003**
	Goods	60	4.55	1.17			
5. Innovation and development of new technologies, products and processes	Service	114	3.72	1.58	4.69	172	0.000***
	Goods	60	4.80	1.13			
6. Increase in profitability and shareholder value	Service	114	3.82	1.68	2.36	172	0.019*
	Goods	60	4.40	1.17			
7. Strategic differentiation and competitive advantage	Service	114	4.30	1.66	1.04	172	0.301
	Goods	60	4.55	1.21			
8. Pre-empt future government regulations	Service	114	3.72	1.57	3.57	172	0.000***
	Goods	60	4.55	1.21			
9. Improvement in corporate image with shareholder and the public	Service	114	4.49	1.56	0.47	172	0.639
	Goods	60	4.60	1.21			
10. Reduction in legal and insurance costs	Service	114	4.04	1.52	2.07	172	0.040*
	Goods	60	4.50	1.17			

**p<.05, **p<.01 and ***p<.001*

Table 4.14 shows that goods retailers' scores were significantly different from service retailers' scores on the 7 items as follows (item 1, 2, 4, 5, 6, 8 and 10):

- Item 1 [$t_{(172)}$ =5.05; p<.001]: Inspection of the two group means indicates that goods retailers see *operating cost savings* as a benefit significantly higher than do service retailers' ($\overline{X}_{Service}$=3.95 and $\overline{X}_{Goods}$=5.15).
- Item 2 [$t_{(172)}$ =2.43; p<.05]: Inspection of the two group means indicates that goods retailers see *increase in customer loyalty and market attraction* as a benefit significantly higher than do service retailers' ($\overline{X}_{Service}$=4.07 and $\overline{X}_{Goods}$=4.65).

- Item 4 [$t_{(172)}$ =3.05; p<.01]: Inspection of the two group means indicates that goods retailers see *improvement in supplier relationships* as a benefit significantly higher than do service retailers' ($\overline{X}_{Service}$=3.86 and $\overline{X}_{Goods}$=4.55).
- Item 5 [$t_{(172)}$ =4.69; p<.001]: Inspection of the two group means indicates that goods retailers see *innovation and development of new technologies, products and processes* as a benefit significantly higher than do service retailers' ($\overline{X}_{Service}$=3.72 and $\overline{X}_{Goods}$=4.80).
- Item 6 [$t_{(172)}$ =2.36; p<.05]: Inspection of the two group means indicates that goods retailers see *increase in profitability and shareholder value* as a benefit significantly higher than do service retailers' ($\overline{X}_{Service}$=3.82 and $\overline{X}_{Goods}$=4.40).
- Item 8 [$t_{(172)}$ =3.57; p<.001]: Inspection of the two group means indicates that goods retailers see *pre-empt future government regulations* as a benefit significantly higher than do service retailers' ($\overline{X}_{Service}$=3.72 and $\overline{X}_{Goods}$=4.55).
- Item 10 [$t_{(172)}$ =2.07; p<.05]: Inspection of the two group means indicates that goods retailers see *reduction in legal and insurance costs* as a benefit significantly higher than do service retailers' ($\overline{X}_{Service}$=4.04 and $\overline{X}_{Goods}$=4.50).

So, while hypothesis (H4) was accepted for the items 1, 2, 4, 5, 6, 8 and 10; it was rejected for the items 3, 7 and 9.

Table 4.15 Comparison of goods and service retailers' scores on the items of customer impact on companies' adoption of GSCP (N=174)

Items	Industry sector	Desc. Statistics			t-test		
		n	Mean	Std. D.	t	df	p
1. Most of the customers question your company's environmental sensitivity.	Service	114	4.28	1.74	0.08	172	0.940
	Goods	60	4.30	1.28			
2. Most of the customers find your company's environmental sensitivity necessary.	Service	114	4.19	1.71	2.23	172	0.017*
	Goods	60	4.60	1.28			
3. Most of the customers think your company's environmental sensitivity should be better than competitors'.	Service	114	4.11	1.71	2.15	172	0.029*
	Goods	60	4.49	1.30			
4. Most of the customers are not really interested in your company's environmental sensitivity.	Service	114	3.81	1.58	4.00	172	0.000***
	Goods	60	2.90	1.05			
5. In general, your customers greatly affect the green environmental practices of your company	Service	114	4.05	1.57	2.20	172	0.018*
	Goods	60	4.45	1.29			
6. Most of the customers appreciate the willingness of your company's efforts to develop an environmental policy.	Service	114	4.02	1.56	2.21	172	0.016*
	Goods	60	4.43	1.31			
7. Most of the customers build a dialogue you're your company about its green practices	Service	114	3.98	1.56	0.35	172	0.725
	Goods	60	3.90	1.27			
8. Most of the customers are influenced by the company's reputation with respect to its environmental policy	Service	114	4.07	1.61	2.38	172	0.011*
	Goods	60	4.55	1.23			
9. Most of the customers have environmental values that impact your company's green policy	Service	114	3.93	1.50	0.31	172	0.759
	Goods	60	4.00	1.28			
10. Your customers' opinions shape the environmental image that your company has.	Service	114	4.03	1.52	2.24	172	0.017*
	Goods	60	4.44	1.25			

**p<.05 and ***p<.001*

Table 4.15 shows that goods retailers' scores were significantly different from service retailers' scores on 7 items (item 2, 3, 4, 5, 6, 8 and 10);

- Item 2 [$t_{(172)}$ =2,.23; p<.05]: Inspection of the two group means indicates that goods retailers perceive the statement *Most of the customers find your company's environmental sensitivity necessary* significantly more important than the service retailers' ($\overline{X}_{Service}$=4.19 and $\overline{X}_{Goods}$=4.60).
- Item 3 [$t_{(172)}$ =2.15; p<.05]: Inspection of the two group means indicates that goods retailers perceive the statement *Most of the customers think your company's environmental sensitivity should be better than competitors'* significantly more important than the service retailers'

($\overline{X}_{Service}$=4.11 and $\overline{X}_{Goods}$=4.49).

- Item 4 [$t_{(172)}$ =4.00; p<.001]: Inspection of the two group means indicates that goods retailers perceive the statement *Most of the customers are not really interested in your company's environmental sensitivity* significantly less true than the service retailers' ($\overline{X}_{Service}$=3.81 and $\overline{X}_{Goods}$=2.90).
- Item 5 [$t_{(172)}$ =2.20; p<.05]: Inspection of the two group means indicates that goods retailers perceive the statement *in general, your customers greatly affect the green environmental practices of your company* significantly more important than the service retailers' ($\overline{X}_{Service}$=4.05 and $\overline{X}_{Goods}$=4.45).
- Item 6 [$t_{(172)}$ =2.21; p<.05]: Inspection of the two group means indicates that goods retailers perceive the statement *Most of the customers appreciate the willingness of your company's efforts to develop an environmental policy* significantly more important than the service retailers' ($\overline{X}_{Service}$=4.02 and $\overline{X}_{Goods}$=4.43).
- Item 8 [$t_{(172)}$ =2.38; p<.05]: Inspection of the two group means indicates that goods retailers perceive the statement *Most of the customers are influenced by the company's reputation with respect to its environmental policy* significantly more important than the service retailers' ($\overline{X}_{Service}$=4.07 and $\overline{X}_{Goods}$=4.55).
- Item 10 [$t_{(172)}$ =2.24; p<.05]: Inspection of the two group means indicates that goods retailers perceive the statement *Your customers' opinions shape the environmental image that your company has* significantly more important than the service retailers' ($\overline{X}_{Service}$=4.03 and $\overline{X}_{Goods}$=4.44).

So, while hypothesis (H5) was accepted for the items 2, 3, 4, 5, 6, 8 and 10; it was rejected for the items 1, 7 and 9.

CHAPTER FIVE

5. CONCLUSION AND IMPLICATIONS

The final chapter of this thesis presents a summary of the most important findings, their implications, study limitations and recommendations for future research. This study aims to explore the potential differences in the green supply chain practices (GSCP) of goods vs service retailers. Given that there are significant distinctions between the retailing of goods and services, we expect to see similar differences between the GSCP of high service retailers (such as hotels) and their low-service counterparts (such as grocery retailers). Specifically, we posit that there will be variations between goods retailers and service retailers with respect to the extent and type of GSCP adopted by them, the barriers they face and the strategies they use to address the challenges in their efforts toward this end. In addition, and closely related to this objective, our research also aims to examine the impact of the customer to the GSCP of retailers. While there is considerable research on supply chain and green supply chain practices in the manufacturing industry, the same cannot be said of the retailing sector. The literature on GSCP of retailers is scant (Naidoo 2014). Addressing a call for more emphasis on the GSCP of retailers, and, in particular, different subsets of retailers, in this study, we chose to focus on the potential differences between services vs. goods retailers.

Our results show that both services and goods retailers are engaged in various GSCP, but with varying emphasis and degrees of involvement. Our findings support the most anticipated finding, namely the significant difference between goods and service retailers with respect to their GSCP. Furthermore, we found evidence to the hypothesized differential impact of customer in their GSCP activities. To summarize the findings:

1. The majority of the participating retailers the study is currently implementing and integrating GSCP in their operations, albeit with significant differences between goods and service retailers.

2. With respect to the potential drivers of GSCP among all retailers, findings show that both goods and service retailers focused on the strongest driver which is ‘top management leadership,

commitment and support'. However, as drivers, goods retailers are found to focus more on tangible issues such as 'solid waste management' and 'optimization of transportation' while service retailers seem more reactive to non-tangible drivers such as impact on brand image and reputation and return on investment and so forth.

3. The majority of goods and service retailers in the study regard 'high initial investment and costs', 'lack of top management leadership, commitment and support' and 'lack of governmental support' as the main factors that prevent, hinder or make companies reluctant to adopt green supply chain practices. However, it is interesting to note that, on the average, the goods retailers consistently rate higher than services retailers the importance of these barriers to their GSCP activities.

4. The goods retailers in the study regard the 'operating cost savings' as the main benefit whereas service retailers regard 'improvement in corporate image with shareholder and the public' as the primary benefit of their GSCP activities. While goods retailers value tangible results, service retailers focus on intangible outcomes. In seven (out of ten) of the items, the goods retailers consistently rated the benefits of GSCP higher than the services.

5. Both goods and service retailers in the study regard 'most of the customers question your company's environmental sensitivity' as the main customer impact on adopting GSCP into their companies. However, once again, the goods retailers consistently rated higher than services retailers the specific customer influences on their GSCP. Once again, with the exception of three (out of ten) of such influences, the goods retailers rated all the remaining ones as being more important than the services retailers.

These findings are significant for several reasons. First, this is a pioneer work which, for the first time, examines the differences between goods and services retailers in terms of their GSCP. Thus, the study fills a void in the literature and addresses the call for more work in the area. Second, as predicted, there are significant differences between these two types of retailers leading to implications for both management and public policy makers as well as for future research. From a public policy perspective, decision makers can get an insight about what instigates and inhibits retailers' GSCP initiatives, and based on the differences among service vs. goods retailers'

perspectives, can begin to use separate strategies that will encourage more initiatives among the management of these companies.

From a future research perspective, our results highlight the areas where more information is needed, and can help locate the touch points where "deeper digging" is required. For example, what are the underlying reasons for goods retailers to rate the drivers, barriers, benefits and customer input into their GSCPs so much higher than those of the services retailers? Can this be explained in any way by the inherent differences between services (intangible) vs. goods (tangible) distinction? Could any of the existing theories or frameworks (such as Resource-Based or the Life-Cycle view) be used to explain these distinctions between these two types of retailers?

While presenting the above contributions of the study, we must also acknowledge its limitations. One limitation is the imbalanced representation of the services vs. goods retailers in that the latter's sample size was, unfortunately, much smaller (60) than what we would expect to find in order to make better comparisons between the two types. Another weakness of the study was the lack of balanced and equal representation from all the three countries. For example, while the goods retailer data was exclusively drawn from Cyprus, the services retailer data came exclusively from the U.S. Turkey and Cyprus. Hence, the original intention of doing a three-country study could not be realized due to the inability and/or reluctance of company and respondent cooperation in the study. This is a problem which has been articulated in previous research where finding willing respondents and firms to participate on a research topic so highly charged with political, social and economic implications has been a problem for other academics as well.

Nonetheless, given that this is an exploratory study in a virgin area, the results are illuminating and inspiring for future researchers as well as for practitioners and policy makers. We hope that this first step creates excitement and attracts more research attention on the timely and significant topic of GSCP.

ANNEXES

ANNEX 1. Qualitative Interviews

Qualitative Interview Results					
Interviewees	**Hotel manager**	**General manager**	**General manager**	**General manager**	**General manager**
Hotels	**H1**	**H2**	**H3**	**H4**	**H5**
Company Profile **(Fact-Sheets)**	5 Star (Family Run) Resort & Convention & Spa 847 rooms & 2597 bed capacity Established on an area of 100,000m^2 Located in Kyrenia, North Cyprus	5 Star Hotel & Casino & Spa (Five different locations) 277 & 118 & 285 & 353 & 109 rooms Ave. 50.000m^2 Located in Nicosia and Kyrenia, North Cyprus	5 Star Hotel & Casino 182 rooms Located in Kyrenia, North Cyprus	5 Star Hotel & Casino 102 rooms Located in Famagusta, North Cyprus	5 Star Hotel & Casino & Port & Spa 410 rooms Ave. 105,000m^2 Located in Kyrenia, North Cyprus
Interview Questions					
Q1. Could you please introduce your company's supply chain process in general?	Family run, 5-star hotel in North Cyprus, general manager (the owner) is responsible for all purchases. Hotel manager reports to general manager. Procurement, food and beverage, technic and sales managers report to hotel manager.	Hotel chain includes five 5-star hotels in North Cyprus. Common procurement department. Hotel managers report to head of procurement department for the purchases. Supplier orders depend on seasonality. Each hotel has its own warehouse within the minimum stock policy.	Hotel chain includes 2 5-star hotels in North Cyprus. Centralized procurement department that deal with 2 hotels in a group. Giving primary importance to their suppliers and to their quality. Procurement takes place as every 3 days in a week. Procurement department designs suppliers after studying optimization. To keep with good quality and standard of material is their goal.	Hotel chain includes 2 5-star hotels in North Cyprus. Centralized procurement department that deal with 2 hotels in a group. Giving primary importance to their suppliers and to their quality. Procurement takes place as every 3 days in a week. Procurement department designs suppliers after studying optimization. To keep with good quality and standard of material is their goal.	5-star Hotel in North Cyprus. Procurement manager reports to general manager. Not happy with suppliers' delivery process.

Qualitative Interview Results					
Interviewees	**Hotel manager**	**General manager**	**General manager**	**General manager**	**General manager**
Hotels	**H1**	**H2**	**H3**	**H4**	**H5**
Q2. To what extend is each of the following environmental sustainability or greening practice adopted in your company's supply chain practices? (Waste management, water consumption, energy consumption, staff trainings & incentives, customer education & marketing, optimization of transportation & logistics operations)	LED lighting in public areas and guest rooms reduces 30% electricity consumption A+ air-conditioning system Energy- efficient insulation on the roof and walls to reduce cooling requirement In-house water treatment-recycles 100% of used 'gray' water in landscape irrigation Toilets have flow setting Staff training about energy consumption No solar energy- city electricity No waste management Have a backward integration system for food (Greenhouses and farm) Suppliers from city center (10km. away)	No solar energy- city electricity Intelligent door cards to reduce energy consumption Well-known brand chemical liquid soaps for laundry and kitchen- not organic -giving regular training to staff for efficient usage. Used oil collection by a certain company in every two weeks Sewage system Air-conditioners run by cold water not with electricity -water comes from 30m depth in the sea. Improving air-conditioning units to better performance with lower energy consumption No renewable energy used- it's city electricity Toilets have flow setting	Using organic cotton towels and sheets. Optimizing routes of the suppliers. The hotel in the seaside is having its in-house water treatment. The hotel uses solar water heating system. Quality brand detergent liquids and usage trainings for staff. Solar water heating panels. Company cars bought as Diesel cars. Intelligent A/C units work with sensors. Energy-efficient insulation on the roof and walls to reduce cooling requirement Toilets have flow setting	Using organic cotton towels and sheets. Optimizing routes of the suppliers. Toilets have flow setting Energy- efficient insulation on the roof and walls to reduce cooling requirement	Have their own waste collection vehicle. Water Reverse Osmose system to use 'grey' water in landscaping. Have LED lightning. Work with closer suppliers. Care about food and product quality. City electricity.

Qualitative Interview Results					
Interviewees	**Hotel manager**	**General manager**	**General manager**	**General manager**	**General manager**
Hotels	**H1**	**H2**	**H3**	**H4**	**H5**
Q3. Are there forces that drive your company's efforts to adopt green supply chain practices?	Some customer pressure on being more green	Customer are more conscious about natural and green products.	Environment conscious management style More customers with environment conscious	No governmental push More customer demand on environmental friendly products	Management policy as being a 5 star hotel
Q4. Do you think are there benefits that your organization expect to realize to adopt green supply chain practices? (Eco-friendly company image, increase in customer loyalty and market attraction etc.)	Yes! Managers and hotel owners are supposed to have same vision which is not always easy. Increase in customer attraction Operating cost service Competitive advantage	Yes! Suppliers in North Cyprus need time to realize the benefits of green supply chain practices. Increase in profitability Operating cost services	To serve eco-friendly- cost savings together with environmental protection Better corporate image Strategic differentiation	Eco-friendly policy Cost savings Market attraction and customer appreciation	Cost savings Better serving to customers Company image

Qualitative Interview Results					
Interviewees	**Hotel manager**	**General manager**	**General manager**	**General manager**	**General manager**
Hotels	**H1**	**H2**	**H3**	**H4**	**H5**
Q5. Are there obstacles that your company has experienced or foresee in the adoption of green supply chain?	No governmental pressure No clear government policy No governmental support Changing government policies -lack of government support Lack of management policy No organic waste management	No governmental support No governmental expectancy Lack of management policy Lack of feasible greening technologies High initial investment and cost Lack of understanding among supply chain stakeholders No organic waste management One company for paper recycle No other recycle companies for tins and glass bottles. Limited capacity company to collect used oil.	Lack of governmental support and policy Suppliers even have difficulty in obtaining A/C unit vans. Hygiene is major problem in suppliers' vehicles. Only one company for paper recycle No companies to collect & recycle for tins and glasses	There is no water treatment or solar water heating-limited building design Lack of governmental support to develop new projects about solar panels. Drinking water hygiene problem-extra cost to send the results to the lab every week	Lack of governmental support and policy Not enough infrastructure dealing with waste management

ANNEX 2. A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Retail Type	Findings
1	Altinay M. & Kashif Hussain, 2005	Sustainable tourism development: a case study of North Cyprus	Case Study	Hotel	This research indicates that the most likely environmental impact of tourism is related with waste disposal, garbage treatment facilities and waste discharge by ships passing through the sea.
2	Aragon-Correa, J.A., 2014	Sustainability issues and hospitality and tourism firms' strategies	Literature Review	Hotel	The growing volume of research on environmental management in the hospitality and tourism firms suggests increasing interest in the topic in the past decade. However, our analysis uses a strategic framework to identify multiple relevant topics that are due for exploration. The generation of more robust theoretical and empirical contributions should also be prioritized in the future.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Retail Type	Findings
3	Bader, E. E., 2005	Hotels – Sustainable hotel business practices	Case Study	Hotel	Corporate hotels are considering sustainability to be central to their business especially by global companies. The independent hotels, resorts and eco-lodges around the world need to take the issue more seriously.
4	Bohdanowicz, P., 2005	European Hoteliers' Environmental Attitudes: Greening the Business	Survey	Hotel	This study indicates that certain changes need to be made within the hotel industry to achieve an environmentally sustainable performance. First, environmentally sound practices need to be incorporated into the hotel industry. Second, customers' environmental awareness needs to increase so that guests issue a greater demand for "green" practices.
5	Boley B. B. & Muzaffer Uysal, 2014	Competitive synergy through practicing triple bottom line sustainability: Evidence from three hospitality case studies	Case Study	Hotel	Findings from the interviews highlight the many tangential benefits discovered from implementing sustainable initiatives aimed at environmental, social, and economic sustainability.
6	Carter R. C. & P. Liane Easton, 2011	Sustainable supply chain management: evolution and future directions	Literature Review	General Merchandise	The field of SSCM has evolved from a perspective and investigation of standalone research in social and environmental areas; through a corporate social responsibility perspective; to the beginnings of the convergence of perspectives of sustainability as the triple bottom line and the emergence of SSCM as a theoretical rigorous, there are numerous opportunities for further advancing theory, methodology, and the managerial relevance of future inquiries.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Retail Type	Findings
7	Chan W. W., 2009	Environmental measures for hotels' environmental management systems ISO 14001	Survey	Hotel	A total of 113 measures were identified, nearly half of which concern energy conservation. Results of multiple regression showed that R^2 for different utilities varied. The explanatory power of equation was strong for electricity consumption, moderate for fuel gas consumption, and weak for both gas and water consumption.
8	Chiarini A., 2012	Designing an environmental sustainable supply chain through ISO 14001 standard	Case Study	General merchandise	The multi-case study analysed in this paper has enabled the outline of an interesting pattern for improving supply chain environmental sustainability. This pathway is underpinned by the ISO 14001 standard requirements and divided into five steps. The first two allow the supplier to remain in the company vendor list. The other three improve the environmental performances of the supplier by the means of an environmental management system and key indicators. In the last stage, the supplier obtains the status of green partner.
9	Chithambaranathan P. et al., 2014	Service supply chain environmental performance evaluation using grey based hybrid MCDM approach	Case Study	Health care & Catering	Organizations operating in the services sector can thus carry out the analysis of environmental performance of different member firms of supply chains employed by them and get a ranking list of the firms using the proposed framework.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Retail Type	Findings
10	Coca, V. et al., 2013	Towards a sustainable development of retailing in Romania	Case Study	Grocery	Concerns for integrating the principles of sustainable development in the strategies of retail firms are modest, aiming, notably, corporate social responsibility and environmental protection. This latter aspect gets some attention due to legislative constraints, and due to incentives granted by pubic authorities. In addition, the principles of sustainable development are significant savings opportunities (energy, fuel, water etc.). In parallel, they constitute a challenge for policies of planning and territorial development- employment, local supply, waste management etc.
11	Dos Santos M. A. O., 2012	Global warming mitigation promotes corporate entrepreneurship within Woolworths' supply chain	Case Study	Supermarket	This study seeks to demonstrate how one of the four major retailers in South Africa promotes corporate entrepreneurship within its supply chain by implementing sustainable marketing strategies. As this retailer appears to be channel leader, it is able to influence and motivate members of its supply chain to develop more sustainable business practices.
12	Erol, I. et al., 2009	Sustainability in Turkish retailing industry	Survey	Grocery	In this research, we develop a guideline to obtain the most suitable indicators for environmental, social and economic sustainability in grocer retailing.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Retail Type	Findings
13	Gleim M.R., et al., 2012	Against the green: a multi-method examination of the barriers to green consumption	Survey	Grocery	The research identifies numerous barriers with actionable implications for retailers seeking to gain a greater share of the green market. While addressing the issue of price is something that is difficult for many retailer's due to constraints set forth by suppliers, it is nevertheless important that green products are perceived as a good value. Essentially, this suggests that retailers must strive to achieve price competitiveness when offering green options to consumers.
14	Ghobakhloo, M. et al., 2013	An integrated framework of green supply chain management implementation	Literature Review	-	With regard to the rising global awareness of environmental protection, businesses have employed their GSCM to improve their core competitive advantage. GSCM is a progressively widely-diffused practice among companies that are seeking to improve their environmental performance. GSCM practices, which are viewed as cross-organizational and closed loop reduces the ecological impact of industrial activity without sacrificing quality, cost, reliability, performance or energy utilization efficiency.
15	Goodman, A., 2000	Implementing sustainability in service operations at Scandic hotels	Case Study	Hotel	Scandic's experience suggest that sustainable strategies are not solely the domain of financially secure companies, but that such efforts can also support a turnaround. Opportunities exist for implementing sustainable practices in the service operations, a relatively neglected area in the literature.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Retail Type	Findings
16	Hassan, M., 2012	Sustainable supply chain management practices and operational performance	Case study	Pharmacy Bank Food	The study examined whether adoption of environmental practices in supply chain management results in a positive impact on environmental and operational performance of companies. It is expected to provide guidance in regard to the implementation of environmental supply chain management practices and to increase their international competitiveness that will result in economic benefits.
17	Hervani, A.A., 2005	Performance measurement for green supply chain management	Case Study	-	Provides an integrative framework for study, design and evaluation of green supply chain management performances tools. The findings also identify a number of issues that need to still be addressed**.**
18	Hsieh, Y., 2012	Hotel companies' environmental policies and practices: a content analysis of their web pages	Case Study	Hotel	Only 46 per cent of the selected hotel companies used web pages to post information related to environmental issues on their public web sites. The web pages of Wyndham, IHG, Accor, Whitbread, Hyatt, Rezidor, Sol Melia, TUI and Scandic featured more revealing environmental information than that posted by other companies, which indicated their environmental commitment and engagement. The results of content analysis identified 12 major environmental focus areas in which the sample hotel companies engaged.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Retail Type	Findings
19	Hristov, L. & Jonathan Reynolds, 2015	Perceptions and practices of innovation in retailing	Survey	General merchandise	The research results show that whilst retailers clearly recognise the important role of innovation for successful business performance, innovation in retailing nevertheless possesses a range of sector-specific meanings and measurement approaches that are distinct from more generic understandings of the phenomenon.
20	Jayawardena, C. et al., 2013	Trends and sustainability in the Canadian tourism and hospitality industry	Case Study	Hotel	The paper provides valuable information on the concept of sustainable development and outlines key sustainability issues and trends in the Canadian tourism and hospitality industry. The umbrella organization for the hotel industry in Canada, the Hotel Association of Canada (HAC), collaborates with key stakeholders to find innovative and sustainable solutions to challenges the industry is facing. Top future trends are captured in the conclusion.
21	Jayawardena, C., 2013	The Canadian hotel industry: innovative solutions to secure the industry's future	Literature review	Hotel	While providing helicopter view of the key trends and challenges of the hotel industry of Canada, this paper proposes implementable and practical solutions to those challenges. Using 2012 WHATT Roundtable discussion in Ottawa, Canada as the foundation, this paper addresses some of the most significant issues affecting the hotel industry of Canada today. In conclusion, 12 key suggestions are made.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Retail Type	Findings
22	Jones, P. et al., 2013	Sustainability in the global hotel industry	Survey	Hotel	The findings reveal that while there is considerable variation in the information the leading hotel chains provided publicly on their sustainability commitments and achievements, they embrace a wide range of environmental, social and economic issues. More critically, the authors argue that these commitments are driven more by the search for efficiency gains, that they are couched within existing business models centred on continuing growth, and that as such the global hotel industry is currently pursuing a "weak" rather than a "strong) model od sustainability.
23	Jones, P. et al., 2014	Retailing and sustainability: Convergence or contradiction in the US	Literature review	General merchandise	The authors argue that the retail industry currently constructs a definition of sustainability which is clearly located within the dominant capitalist business model and driven by commercial interests rather than by an overriding concern to maintain the long-term viability and integrity of natural ecosystems and to reduce demands on finite natural resources.
24	Jones, P. et al., 2005	Retailers and sustainable development in the UK	Literature review	General merchandise	The review suggest that the majority of the major retailers are addressing sustainability agendas, that they recognise, albeit in varying measure, the impacts their businesses have on the environment, the economy and society and several of them are looking to measure and benchmark their performance.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Retail Type	Findings
25	Kasim, A. & Cezar Scarlat, 2007	Business Environmental Responsibility in the Hotel Sector	Literature review	Hotel	This paper has established that tourism and the hotel sector has a direct relationship with the physical environments. The inevitable link between tourism and hotel' activities with both environment, and the strong tourism growth in the past, implies that tourism s far-reaching negative impacts that must be mitigated.
26	Kasim, A. & Cezar Scarlat, 2007	Managing the environmental impact of the hospitality industry-in the context of sustainable tourism development	Literature review	Hotel	As key traders in the tourism industry, the hotels need to play a greater role. The number and range of impacts it has on the environmental in particular, indicate an urgent need to address those impacts.
27	Kellner, F. & Johannes Igl, 2012	Estimating the effect of changing retailing structures on the greenhouse gas performance of FMCG distribution networks	Survey	Food	Results are reported and analysed to show up how different changes in logistics structures may reduce GHG, without technological prolusion or use of regenerative energy.
28	Kumar, P., 2013	Greening retail: an Indian experience	Survey	General merchandise	Nine core groups of green retail practices are identified- distinctness of green products, promoting sustainable business practices, use of environmental keywords, promotion for awareness, promotional offers for sale, ensuring availability and visibility of green products, approval for environmental claims, environmentally friendly appeal of store and consumer involvement approaches.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Industry	Findings
29	Kleinrichert, D., et al., 2012	Boutique hotels: technology, social media and green practices	Case study	Hotel	San Francisco Bay area hoteliers, in the majority of instances, used their web sites to illustrate one international standard, LEED certification, for building structure. However, these hoteliers generally reported use of varying regional standards for legitimizing their green practices. Istanbul hoteliers reported on maintaining international standards for legitimizing their green practices, but did not seek specific standards for building structures.
30	Kotzab H. et al., 2011	Environmental retail supply chains: when global Goliaths become environmental Davids	Survey	General merchandise	The authors identified 34 environmental sustainability initiatives which were grouped into eight categories; they refer to "fundamental environmental attitude", "use of energy", "use of input material", "product", "packaging", "transport", "consumption" and "waste". The level of environmental supply chain management can be characterised as very operational and very short-term oriented (green operations). Long-term oriented green design initiative was hardly observed. Furthermore, the specific environmental activities of three retailers from Denmark, France and the UK were compared.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Retail Type	Findings
31	Lai, K., et al., 2010	Green retailing: factors for success	Case Study	General merchandise	As retailer vary in business scope and scale, there is no single universal solution for GR. It is important for retailers to carefully design and prioritize the three specific needs of their business segments. They should also prioritize the three GR dimensions for improvement actions based on their contextual situations and resources.
32	Lukic, R., 2012	Sustainable development of retail in Serbia	Case Study	Food	In Serbia, the application of the concept of sustainable development in the retail companies is still on the lower level compared to global retailers.
33	Metta, H. & Fazlena Badurdeen, 2011	Environmental and Societal assessments for sustainable product and supply chain design	Optimization	General merchandise	This paper presents the procedure that can be used for performing the environmental and societal MLC analysis on the economically feasible PDSCC combinations, to identify the best combinations with minimum environmental and societal impacts.
34	Naidoo, A., 2014	An exploratory analysis of green supply chain best practices in the retail sector	Survey	General merchandise	This study shows that the majority of retailers have recognised the societal and economic importance of environmental sustainability and therefore the need to incorporate greening best practices into their supply chain activities instead of ignoring it or merely engaging in acts of greenwashing.
35	Newell, G., 2009	The significance of sustainability best practice in retail property	Content Analysis	Property	Retail property has made a significant contribution to the sustainable property agenda at an international level.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Industry	Findings
36	Paksoy, T. & E. Ozceylan, 2013	Environmentally conscious optimizations of supply chain networks	Optimization	-	The contributions of this paper were: (i) to describe a modelling approach for incorporating fuel consumption,CO2 emission, noise level and roughness factor into existing network planning methods for supply chains, (ii) to offer a novel nonlinear programming model for the network design problem, which, in contrast to most of the existing costs expressed as a function speed under roughness factor, (iii) to present extensive computational analyses that capture the trade-off between various performance measures.
37	Quak, H.J. & M.B.M. de Koster, 2007	Exploring retailers' sensitivity to local sustainability policies	Case Study	Logistics	In order to achieve social sustainability effects without unnecessarily increasing the environmental burden and the retailers' costs, municipalities should consider harmonizing their time-windows.
38	Raghuram, C., & R. Jayaraman, 2011	Reducing the carbon footprint in the supply chain	Survey	General merchandise	It is evident that carbon footprint is an important variable which will determine the state of damage that industrial production can do to the environment.
39	Robinot, E. & J.L. Giannelloni, 2010	Do hotels' "green" attributes contribute to customer satisfaction?	Survey	Hotel	The first hypothesis is rejected. For the second hypothesis, the results show that the environmental attributes were evaluated as "basic" which means they were seen as integral part of the service offer, rather than as differentiating criteria.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Retail Type	Findings
40	Robinot, E., 2009	Attitude toward environmentally friendly hospitality management: a measurement scale	Survey	Hotel	The detrimental effects of our mode of consumption on the environment are now widely acknowledged. It seems that a collective awareness is even now emerging. If the role of the company with its clients in order to co-construct an offer which creates value, then, more than ever, marketing managers need tools to help them netter understand consumers' susceptibility impact.
41	Ruffolo, I., 2015	The greening of hotels in the UK and Italy: A cross-cultural study of the promotion of environmental sustainability of comparable corpora of hotel websites	Case study	Hotel	The analysis conducted on corpora of British and Italian hotel websites shows that in both cultures there is a clear attempt to create a strong positive image as an ecologically responsible company.
42	Ruiz-Molina, M. et al., 2010	Good environmental practices for hospitality and tourism	Content analysis	Hotel	The use of online promotion and booking, information analysis and report management systems, ERP systems, ICT systems connected to providers, GPS and ambient intelligence, among others, may help hospitality companies to minimize the environmental impact of their activities.
43	Shamah, R., 2012	Innovation within green service supply chains for a value creation	Survey	Hotel	The paper finds that it is possible to assist managers in thinking about adding value for supply chains.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Retail Type	Findings
44	Shaw, S., & D. B. Grant, 2010	Developing environmental supply chain performance measures	Literature review	-	The literature suggests there is an opportunity to explore the relationship between the environmental and logistics and that environmental supply chain performance measurement (SCPM) should enable organisations to more effectively benchmark their supply chain environmental performance. A framework incorporating these notions and a research agenda for empirical study are also presented.
45	Sloan, T.W., 2010	Measuring the sustainability of global supply chains: current practices and future directions	Literature review	-	This study introduces three propositions related to global supply chain sustainability measurement. These propositions lay the groundwork for future theoretical exploration in this area.
46	Suki, N.M. & Norbayah M.S., 2014	Consumers' environmental behaviour towards staying at a green hotel	Survey	Hotel	Empirical analysis via hierarchical regressions confirmed that returning tourists' intention to stay at a green hotel was influenced positively by perceived behavioural control and attitude. However, the subjective norm was found to be not significantly related to returning tourists' intention to stay at a green hotel.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference	Article	Methodology	Retail Type	Findings
47	Tang, A. K.Y. et al., 2015	A multi-research method approach to studying environmental sustainability in retail operations	Survey	General merchandise	Retailers adopting green operations well serve their stakeholders while making financial gains. GROs for retailers differ from their manufacturer counterparts because the former occupies a unique position that intermediate not only benefits retail stores alone but also their suppliers through an efficient logistic system. The adoption of various environmental sustainability practices even enhances customers' shopping experience.
48	Thomass, A.K. & P.S. James, 2013	An empirical case study on successful luxury resorts	Case Study	Hotel	The researcher argues that if such practices can be adopted, the guests would recommend these resorts to their friends and relatives.
49	Thompsn, B., 2007	Green retail: retailer strategies for surviving the sustainability storm	Case study	General merchandise	This research shows that consumers are prepared to pay more for environmental friendly goods.
50	Verma, A. S., 2014	Sustainable supply chain management practices: selective case studies from Indian Hospitality Industry	Case study	Hotel	Greening of the supply chain is an initiative that manufacturing as well as service cannot ignore.

Annex 2: (Cont'd.) A Scanning of Green Service Retailing and Green Supply Chain Practices Research

	Reference		Article	Methodology	Retail Type	Findings
51	Wiese, A. et al., 2011		Sustainability in retailing-a summative content analysis	Content analysis	General merchandise	Sustainability-related issues have been discussed for many years and the term sustainability has received increased attention in research since the mid-1990s. In retail research, there seems to be a time lag of more than ten years in using the term sustainability compared to other fields in research and industry. However, some of these other research fields and industries have an impact on retail supply chains. At the same time, it seems that sustainability has received more attention in retail management practice compared to research applications.
52	Wilson, J.P., 2014		The triple bottom line: undertaking an economic, social, and environmental retail sustainability strategy	Case study	Textile	Retailers exert a significant influence on sustainability issues due to their position in the supply chain between producers and customers. It is argued that M&S's Plan A environmental strategy demonstrates evidence of an economically successful "strong model of sustainability" compared with the world's top ten retailers. In total, 15 factors emerged which may provide a checklist for organisations undertaking and managing their own sustainability change programmes.
53	Orsato, R.J., 2006		Competitive environmental strategies: when does it pay to be green?	Survey	-	Managers will need to identify the areas in which firms can focus their environmental efforts in the pursuit of competitive advantage.
54	Srivastava, S.K.		Green supply chain management: a state-of-the-art literature review	Literature review	-	GrSCM can reduce the ecological impact of industrial activity without sacrificing quality, cost, reliability, performance or energy utilization efficiency.

ANNEX 3. Survey Questionnaire

MALTEPE UNIVERSITY
SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF INTERNATIONAL TRADE AND LOGISTICS
Logistics and Supply Chain Doctorate Program

AN EXPLORATORY STUDY OF THE DIFFERENCES BETWEEN THE GREEN SUPPLY CHAIN PRACTICES OF GOODS VS. SERVICE RETAILERS

Dear Survey Participant,

Thank you very much for agreeing to participate in my research, which is a requirement towards the completion of my doctoral degree. The topic focuses on the green supply chain practices of retail service and product companies. The survey is not long and should not take more than 5-7 minutes of your time. Company names, respondent names and company affiliations will be kept confidential and will not be disclosed in the research reports. If you are interested in the final results of my study, I will be happy to share them with you when the research is finalized.

If you have any questions or concerns about the survey, please contact me at selenbeduk@yahoo.com.

Once again, on behalf of my university and myself, I thank you very much for taking time to participate in this study.

Best regards,

Selen Beduk
Doctorate Candidate
Logistics and Supply Chain Management Doctorate Program
Istanbul, TURKEY
E-mail: selenbeduk@yahoo.com
Phone: +1 404 513 5986
Skype : Selen

SECTION I: THE CURRENT GSCP IMPLEMENTATION IN YOUR COMPANY

Please indicate the extent to which each of the green supply chain practices below are implemented in your company. Please use the below rating scale where 1=Not At All and 7=Extremely High. So, for example, if your company is highly involved in solid waste management, you'd check the box corresponding to number "5" or "6" on the scale, and so on.

		Not at all 1	2	3	4	5	6	Extremely High 7
1.	Solid waste management							
2.	Optimization of transportation and logistics operations							
3.	Green procurement and sourcing							
4.	Green site selection and infrastructure design							
5.	Staff training and education							
6.	Customer education and marketing							

SECTION II: DRIVERS OF THE CURRENT GSCP IMPLEMENTATION IN YOUR COMPANY

Please indicate the extent to which each of the below factors are or have been influential in your company's adoption of the green supply chain practices that are currently being implemented in your company. Please use the below rating scale where 1=Not Influential at all and 7=Extremely Influential. So, for example, if the demand from your supply chain members has been a very strong driver for your company's green supply chain practice implementation, you'd check the box corresponding to number "6" on the scale, and so on.

		Not at all Influential 1	2	3	4	5	6	Extremely Influential 7
1.	Top management leadership, commitment and support							
2.	Environmental legislations and regulations							
3.	Enhancement of corporate image and brand equity							
4.	Realization of return on investment through cost savings							
5.	Development of innovative technologies, processes and products							
6.	Pressure from competitors' actions							
7.	Pressure from consumers and lobby groups							
8.	Pressure from supply chain members							
9.	Reduction in risk of disruptions in energy and raw material supply							
10.	Reduction in legal risks							
11.	Increase in disclosure requirements for sustainability policies and practices							

SECTION III: PERCEIVED ADOPTION BARRIERS TO GSCP IMPLEMENTATION IN YOUR COMPANY

Please indicate the extent to which each of the below factors are barriers to adoption at a higher level of the green supply chain practices in your company. Please use the below rating scale where 1=Not At All A Barrier and 7=Extremely High Barrier. So, for example, if you think that lack of expertise in the company about green supply chain practices is a very strong barrier to adopting these practices, you'd check the box corresponding to number "6" on the scale, and so on.

		Not At All Barrier 1	2	3	4	5	6	Extremely High Barrier 7
1.	Lack of top management leadership, commitment and support							
2.	Lack of knowledge and expertise							
3.	Resistance to change							
4.	Lack of greening initiatives							
5.	Lack of feasible greening technologies							
6.	High initial investment and costs							
7.	Lack of return on investment							
8.	Lack of understanding among supply chain stakeholders							
9.	Lack of customer awareness and demand							
10.	Lack of government support							

SECTION IV: PERCEIVED ADOPTION BENEFITS OF GSCP IMPLEMENTATION TO YOUR COMPANY

Please indicate the extent to which each of the below factors are benefits of adopting green supply chain practices in your company. Please use the below rating scale where 1=Not At All A Benefit and 7=Extremely High Benefit. So, for example, if you think that implementing green supply chain practices greatly benefits your company by increasing customer loyalty, for this item you'd check the box corresponding to number "6" on the scale, and so on.

		Not At All A Benefit 1	2	3	4	5	6	Extremely High Benefit 7
1.	Operating cost savings							
2.	Increase in customer loyalty and market attraction							
3.	Increase in employee attraction and retention							
4.	Improvement in supplier relationships							
5.	Innovation and development of new technologies, products and processes							
6.	Increase in profitability and shareholder value							
7.	Strategic differentiation and competitive advantage							
8.	Pre-empt future government regulations							
9.	Improvement in corporate image with shareholder and the public							
10.	Reduction in legal and insurance costs							

SECTION V: DIGGING DEEPER INTO CUSTOMER IMPACT ON COMPANY'S ADOPTION OF GSCP

Now, we turn to your opinions on how the customers affect your company's green supply chain practices. To that end, please indicate the degree to which you agree or disagree with each of the below statements. Please use the below rating scale where 1=Completely Disagree and 7=Completely Agree. So, for example, if you neither agree nor disagree with the statement that "Most of the customers find company's environmental sensitivity necessary, you'd check the box corresponding to number "4"on the scale, and so on. Remember to think about your company ONLY as you respond to the following statements.

		Completely Disagree 1	2	3	4	5	6	Completely Agree 7
1.	Most of the customers question your company's environmental sensitivity.							
2.	Most of the customers find your company's environmental sensitivity necessary.							
3.	Most of the customers think your company's environmental sensitivity should be better than competitors'.							
4.	Most of the customers are not really interested in your company's environmental sensitivity.							
5.	In general, your customers greatly affect the green environmental practices of your company							
6.	Most of the customers appreciate the willingness of your company's efforts to develop an environmental policy.							
7.	Most of the customers build a dialogue you're your company about its green practices							
8.	Most of the customers are influenced by the company's reputation with respect to its environmental policy							
9.	Most of the customers have environmental values that impact your company's green policy							
10.	Your customers' opinions shape the environmental image that your company has.							

SECTION VI: DEMOGRAPHIC QUESTIONS

Below questions in that section will be used for grouping and evaluating the information from demographics perspective. As mentioned earlier, the information will be kept strictly confidential. Company & employee names will not be disclosed in the research report.

1. Please provide name of the department in your company (Please write down).

   ……

2. Your status (job title) in the company (Please mark the appropriate option).

   - Worker
   - Specialist
   - Chef
   - Assistant Manager
   - Manager
   - Assistant General Manager
   - General Manager
   - Other ……..

3. Total years of working experience in this sector (Please mark the appropriate option).

   - 1-5 years
   - 6-10 years
   - 11-15 years
   - 16-20 years
   - 21 years and more

4. Years of working for this/current company (Please mark the appropriate option).

   - 1-5 years
   - 6-10 years
   - 11-15 years
   - 16-20 years
   - 21 years and more

   Thanks for your contribution.

REFERENCES

Adams, M. (2008). A cause whose time has come, *Hospitality Design*, 14.

Agnew, M.D. & Viner, D., (2001). Potential impacts of climate change on international tourism, Tourism and Hospitality Research, 37-50.

Amadi, L., Igwe P. I. & Wordu, S., (2014). Sustainable development, greening and eco-efficiency – a political ecology, *Journal of Sustainable Development Studies*, 161-196.

Altinay, M. & Hussain K., (2005). Sustainable tourism development: a case study of North Cyprus, *International Journal of Contemporary Hospitality Management*, 272-280.

Aragon-Correa, J.A., Martin-Tapia, I. & Torre-Ruiz, J., (2014). Sustainability issues and hospitality and tourism firms' strategies, *International Journal of Contemporary Hospitality Management*, 498-522.

Arnold, V. & Eberhard, E.S, (2002). Supply chain management- integrating e-purchasing and retailing concepts, *87th Annual International Conference Proceedings*, CA, US.

Bader, E. E., (2005). Hotels-sustainable hotel business practices, *Journal of Retail & Leisure Property*, 70-77.

Bjorkland, M., Uni, M. & Mats, A., (2012). Performance measurements in the greening of supply chains, *Supply Chain Management: An International Journal*, 17(1), 29-39.

Bohdanowicz, P., (2005). European hoteliers' environmental attitudes: greening the business, *Cornell Hotel and Restaurant Administration Quarterly*, 188-204.

Boley, B. B. & Uysal, M., (2014). Competitive synergy through practicing triple bottom line sustainability: Evidence from three hospitality case studies, *Independent Journal of Management and Production*, 13(4), 226-238.

Borges, M. A. V., (2015). An evaluation of supply chain management in a global perspective, *Independent Journal of Management and Production*, 6(1), 1-29.

Bowen, F.E., Cousins, P.D., Lamming, R.C. & Faruk, A.C., (2001). The role of supply chain management capabilities in green supply, *Production and Operations Management*, 10(2), 174-189.

Brodie, R.J., Malthouse, E.C. & Schaedel, U., (2011). Customer engagement: conceptual fundamental propositions and implications for research, *Journal of Service Research*, 14, 252-271.

Brown, M., (2005). Special issue introduction: transport energy use and sustainability, *Transport Reviews*, 25(6), 643-5.

Carter, C.R. & Carter, J.R., (1998). Interorganizational determinants of environmental purchasing: initial evidence from the consumer products industries, *Decision Sciences*, 29(3), 659-84.

Carter, C.R. & Easton, P.L., (2011). Sustainable supply chain management: evolution and future directions, *International Journal of Physical Distribution and Logistics Management*, 41(1), 46-62.

Chan, W. W., (2009). Environmental measures for hotels' environmental management systems-ISO 14001, *International Journal of Contemporary Hospitality Management*, 21(5), 542-560.

Chiarini, A., (2013). Designing an environmental sustainable supply chain through ISO 14001 standard, *Management of Environmental Quality: An International Journal*, 24(1), 16-33.

Chithambaranathan, P., Subramanian, N., Gunasekaran, A. & Palaniappan PL.K., (2015). Service supply chain environmental performance evaluation using grey based hybrid MCDM approach, *International Journal of Production Management*, 166, 163-176.

Christensen, L., (2002). The environment and its impact on the supply chain, *International Journal of Retail and Distribution Management*, 30(11), 571-572.

Coca, V., Dobrea, M. & Vasiliu, C., (2013). Towards a sustainable development of retailing in Romania, *Business and Sustainable Development*, 15(7), 583-602.

Conlin, J., (2000). Green-hotel concept sprouts ardent following, *Hotel and Motel Management*, 215(6), 61-63.

Cox, M.J., (2008). Sustainable communication: a study of green advertising and audience reception within the growing area of corporate social responsibility: case study: British petroleum, *Earth and Environment*, 3, 32-51.

Davies, M., Powell, S.M., & Shearer H., (2009). Motivating Corporate Social Responsibility in the Supply Chain, *Proceedings of the Australian and New Zealand Marketing Academy Conference*, Melbourne, Australia.

Davies, T., (1993). Effective supply chain management, *Sloan Management Review* 3(4), 35-46.

Defee, C.C., Randall, W.S. & Gibson, B.J., (2009). Roles and capabilities of the retail supply chain organization, *Journal of Transportation Management*, Fall.

Dos Santos, M. A. O., (2012). Global warming mitigation promotes corporate entrepreneurship within Woolworths' supply chain, *African Journal of Business Management*, 6(31), 911-9160.

Drucker, P.F., (1962). The Economy's Dark Continent, *Fortune*, April, 103.

Enz, C. A. & Siguaw, J. A., (1999). Best hotel environmental practices, *Cornell Hotel and Restaurant Administration Quarterly*, 40(5), 72-77.

Ernst & Young, (2008). Hospitality going green, *Global Hospitality Insights: A Publication for the Hospitality Industry*. Available from http://www.hotelnewsresource.com/pdf8/e_y120408.pdf (Accessed on 15 April 2016).

Erol, I., Cakar, N., Erel, D. & Sari, R., (2009). Sustainability in the Turkish retailing industry, *Sustainable Development*, 17, 49-67.

Foster, S.T., Sampson, Jr. S.E. & Dunn, S.C., (2000). The impact of customer contact on environmental initiatives for service firms, *International Journal of Operations and Production Management*, 20(2), 187-203.

Gavaghan, K., Calahan-Klein, R., Olson, J.P. & Pritchett, T.E., (1998). The greening of the supply chain, *Supply Chain Management Review* 2(2), 76-84.

Gerard, N., (2010). The environmentalists, *Caterer and Hotelkeeper*, 200, 34-36.

Gleim, M. R., Smith, J. S., Andrews, D. & Cronin, J.J., (2013). Against the green: A multi-method examination of the barriers to green consumption, *Journal of Retailing*, 89(1), 44-61.

Ghobakhloo, M., Tang, S. H., Zulkifli, N. & Ariffin, M. K. A., (2013). An integrated framework of green supply chain management implementation, *International Journal of Innovation, Management and Technology*, 4(1), 86-89.

Goodman, A., (2000). Implementing sustainability in service operations at Scandic hotels, *Interfaces*, 30(3), 202-214.

Handfield, R., Robert S. & Steven W., (2005). Business Strategy and the Environment, *Integrating Environmental Management and Supply Chain Practices*, 14(1), 1-9.

Hassan, M., (2013). Sustainable supply chain management practices and operational performance, *American Journal of Industrial and Business Management*, 3, 42-48.

Hervani, A. A., Helms, M. M. & Sarkis, J., (2005). Performance measurement for green supply chain management, *Benchmarking: An International Journal*, 12(4), 330-353.

Hines, J.M., Hungerford, H.R. & Tomera, A.N. (1987). Analysis and synthesis of research on responsible environmental behaviour: a meta-analysis, *The Journal of Environmental Education*, 18(2), 1-8.

Hsieh, Y.C., (2012). Hotel companies' environmental policies and practices: a content analysis of their web pages, *International Journal of Contemporary Hospitality*, 24(1), 97-121.

Hristov, L. & Reynolds, J., (2012). Perceptions and practices of innovation in retailing: challenges of definition and measurement, *International Journal of Retail and Distribution Management*, 43(2), 126-147.

Jayawardena, C., Pollard, A., Chort, V., Choi, C. & Kibicho, W., (2013). Trends and sustainability in the Canadian tourism and hospitality industry, *Worldwide Hospitality and Tourism Themes*, 5(2), 132-150.

Jayawardena, C., (2013). The Canadian hotel industry: innovative solutions to secure the industry's future, *Worldwide Hospitality Tourism Themes*, 5(2), 219-230.

Jones, P., Hillier, D. & Comfort, D., (2013). Sustainability in the global hotel industry, *International Journal of Contemporary Hospitality Management*, 26(1), 5-17.

Jones, P., Comfort, D. & Hillier, D., (2014). Retailing and sustainability: convergence or contradiction in the US, *Management Research and Practice*, 6(2), 42-52.

Jones, P., Comfort, D., Hillier, D. & Eastwood, I., (2005). Retailers and sustainable development in the UK, *International Journal of Retail and Distribution Management*, 33(3), 207-214.

Kasim, A. & Scarlat, C., (2007). Business environmental responsibility in the hotel sector. Available form www.fm-kp.si/zalozba/ISSN/1854-4231/2_005-023.pdf (Accessed on 16 April 2016).

Kasim, A. & Scarlat, C., (2007). Managing the environmental impact of the hospitality industry- in the context of sustainable tourism development. Available form www.fm-kp.si/zalozba/ISSN/1854-4231/2_005-023.pdf (Accessed on 16 April 2016).

Kellner, F. & Igl, J., (2012). Estimating the effect of changing retailing structures on the greenhouse gas performance of FMCG distribution networks, *Logistics Research*, 4, 87-99.

Kleinrichert, D., Ergul, M. & Johnson, C., (2012). Boutique hotels: technology, social media and green practices, *Journal of Hospitality and Tourism Technology*, 3(3), 211-225.

Kotzab, H., Munch, H. M., Faultrier B. & Teller, C., (2011). Environmental retail supply chains: when global Goliaths become environmental Davids, *International Journal of Retail and Distribution Management*, 39(9), 658-681.

Kotzab, H., Teller, C., Grant, D. B. & Sparks, L., (2011). Antecedents for the adoption and execution of supply chain management, *Supply Chain Management: An International Journal*, 16(4), 231-245.

Kozlenkova, I. V., Hult, G. T. M., Lund, D. J. & Mena, J. A., (2015). The role of marketing channels in supply chain management, *Journal of Retailing*, 91(4), 586-609.

Krut, R. & Karasin, L., (1999). Supply chain environmental management: lessons from leaders in the electronics industry, United States-Asia Environment Management.

Kumar, P., (2013). Greening retail: an Indian experience, *International Journal of Retail and Distributions Management*, 42(7), 613-625.

La Londe, B.J. & Masters, J.M., (1994). Emerging logistics strategies: blueprints for the next century, *International Journal of Physical Distribution & Logistics Management*, 24(7), 35-47.

Langley, J.C.J., (1980). The evolution of the logistics concept, *Journal of Business Logistics*, 7(2), 1-11.

Langley, C.J., Coyle, J.J., Gibson, B.J., Novack, R.A. & Bardi, E.J., (2009). **Managing supply chains: a logistics approach**. Canada: South Western.

Lai, K., Cheng, T. C. E. & Tang, A. K. Y., (2010). Green retailing: factors for success, *California Management Review*, 52(2), 6-31.

Lee, J., Hsu, L., Han, H. & Kim, Y., (2010). Understanding how consumers view green hotels: hoe a hotel's green image can influence behavioural intentions, *Journal of Sustainable Tourism*, 18(7), 901-914.

Leonidou, C. N., Katsikeas, C. S. & Morgan, N. A., (2012). "Greening" the marketing mix: do firms do it and does it pay off? *Journal of the Academic Marketing Science*, 41, 151-170.

Lewis, H. & Gretsakis, J., (2001). Design+ Environment: a global guide to designing greener goods, *Greenleaf Publishing*, Sheffield, UK.

Lipman, G., (2011). Tourism and travel in the green economy, *International Trade Forum*, 2, 28-29.

Lukic, R., (2012). Sustainable development of retail in Serbia, *Comparative Management*, 13(4), 574-586.

Lusch, R.F., Vargo, S.L. & O'Brian, M., (2007). Competing through service: insights from service-dominant logic, *Journal of Retailing*, 83(1), 5-18.

Lynes, J.K. & Dredge, D., (2006). Going green: motivating for environmental commitment in the airline industry, a case study of Scandinavian Airlines, *Journal of Sustainable Tourism*, 14(2), 116-138.

Manaktola, K. & Jauhari, V., (2007). Exploring consumer attitude and behaviour towards green practices in the lodging industry in India, *International Journal of Contemporary Hospitality Management*, 19(5), 364-377.

Mastellone, M.L., Brunner, P.H. & Arena, U., (2009). Scenarios of waste management for a waste emergency area, *Journal of Industrial Ecology*, 13(5), 735-757.

McIntyre, K., Smith, A.H., Henham, A. & Pretlove, J., (1998). Logistics performance measurement and greening supply chains: diverging mindsets. *International Journal of Logistics Management*, 9(1), 55-67.

Meller, M., & Ham, M., (2012). Green marketing for green tourism, *Tourism and Hospitality Management 2012 Conference Proceedings*, 130-139.

Metta, H., & Badurdeen, F., (2011). Environmental and societal assessments for sustainable product and supply chain design, *Proceedings of the 2011 Industrial Engineering Research Conference.*

Miles, M.B., & Humberman, A.M., (1994). **Qualitative Data Analysis: An Expanded Sourcebook.** Thousand Oaks: Sage Publication.

Min, H. & Galle, W.P., (2001). Green purchasing practices of US firms, *International Journal of Production and Opertaions Management*, 21(9), 1222-1238.

Naidoo, A., (2014). An exploratory analysis of green supply chain best practices in the retail sector, Master Thesis. University of Johannesburg.

Newell, G., (2009). The significance of sustainability best practice in retail property, *Journal of Retail and Leisure Property*, 8(4), 259-271.

Ninlawan, C., Seksan, P., Tossapol, K. & Pilada, W., (2010). The implementation of green supply chain management practices in electronics industry. *Proceedings of the International Multi-Conference of Engineering and Computer Scientists*, Hong Kong.

Olson, E. G., (2010). **Better Green Business**. New Jersey: Pearson Education.

Orsato, R. J., (2006). Competitive environmental strategies: when does it pay to be green? *California Management Review*, 48(2), 127-143.

Paksoy, T. & Ozceylan, E., (2014). Environmentally conscious optimization of supply chain networks, *Journal of the Operational Research Society*, 65, 855-872.

Plambeck, E. & Denend, L., (2011). The greening of Walmart's supply chain. Available from http://www.scmr.com/article/The_Greening_of_Walmarts_Supply_Chain_Revisited (Accessed on 20 April 2016).

Poist, R.F., (1974). The total cost vs total profit approach to logistics systems design, *Transportation Journal*, 13.

Quak, H. J. & Koster, M. B. M., (2007). Exploring retailers' sensitivity to local sustainability policies, *Journal of Operations Management*, 25, 1103-1122.

Raghuram, C. & Jayaraman, R., (2013). Reducing the carbon footprint in the supply chain, *Journal of Supply Chain Management Science*, 2(1), 1-15.

Randall, W.S. & Farris II, M.T., (2009). Supply chain financing: using cash-to-cash variables to strengthen the supply chain, *International Journal of Physical Distribution & Logistics Management*, 39(8), 669-689.

Reinartz, W., Dellaert, B., Krafft, M., Kumar, V. & Varadarajan, R., (2011). Retailing innovations in a globalizing retail market environment, *Journal of Retailing*, 1, 53-66.

Roberts, J., (2008). Green retailing: green futures? *In-Store Magazine for Retail Marketing and Design*.

Robinot, E. & Giannelloni, J., (2009). Attitude toward environmentally friendly hospitality management: a measurement scale, *Research and Applications in Marketing*, 24(2), 29-50.

Robinot, E. & Giannelloni, J. L., (2010). Do hotels' "green" attributes contribute to customer satisfaction, *Journal of Services Marketing*, 24(2), 157-169.

Ruffolo, I., (2015). The greening of hotels in the UK and Italy: a cross-cultural study of the promotion of environmental sustainability of comparable corpora of hotel websites, *Procedia-Social and Behavioural Sciences*, 198, 397-408.

Ruiz-Molina, M., Gil-Saura, I. & Moliner-Velazquez, B., (2010). Good environmental practices for hospitality and tourism – the role of information and communication technologies, *Management of Environmental Quality: An International Journal*, 21(4), 464-476.

Sanchez-Canizares, S. M. & Castillo-Canalejo, A.M., (2014). Community-based island tourism: the case of Boa Vista in Cape Verde, *International Journal of Culture Tourism and Hospitality Research*, 8(2), 219-233.

Sarkis, J., (2006). Making a sustainability business case for alternative building designs: using the LEED requirements, *Journal of Green Building*, 1(4), 58-66.

Sarkis, J., (2009). A strategic decision framework for green supply chain management, *Journal of Cleaner Production*, 11(4), 397-409.

Shamah, R. A. M., (2012). Innovation within green service supply chains for a value creation, *Journal of Modelling in Management*, 7(3), 357-374.

Shaw, S. & Grant, D. B., (2010). Developing environmental supply chain performance measures, *Benchmarking: An International Journal*, 17(3), 320-339.

Sloan, T.W., (2010). Measuring the sustainability of global supply chains current practices and future directions, *Journal of Global Business Management*, 6(1), 92-107.

Snir, E.M., (2001). Liability as a catalyst for product stewardship, *Production and Operations Management*, 10(2), 190-207.

Suki, N. M. & Suki, N. M., (2015). Consumers' environmental behaviour towards staying at a green hotel, *Management of Environmental Quality: An International Journal*, 26(1), 103-117.

Srinivasan, S., Koen, P., Hanssens, D.M. & Marrik, G.D., (2004). Do promotions benefit manufacturers, retailers or both? *Management Science*, 50, 617-29.

Srivastava, S. K., (2007). Green supply-chain management: a state -of-the-art literature review, *International Journal of Management Reviews*, 9(1), 53-80.

Stock, J.R., (1998). **Development and implementation of reverse logistics programs**. Council of Logistics Management, Oak Brook, IL.

Tang, A.K.Y., Lai, K. & Cheng, T. C. E., (2016). A multi-research-method approach to studying environmental sustainability in retail operations, *International Journal of Production Economies*, 171, 394-404.

Thierry, M., Saloman, M.,Van Nuen, J.A.E.E. & Van Wassenhove, L.N., (1995). Strategic Issues in Product Recovery Management, *California Management Review*, 37(2).

Thomas, A. K. & James, P.S., (2013). An empirical case study on successful luxury resorts, *Asia Pacific Journal of Management & Entrepreneurship Research*,1(3), 332-384.

Thompson, B., (2007). Green retail: retailer strategies for surviving the sustainability storm, *Journal of Retail and Leisure Property*, 6(4), 281-286.

Vachon, S. & Robert D. K., (2006). Extending green practices across the supply chain: the impact of upstream and downstream integration, *International Journal of Operations and Production Management*, 26(7), 795-821.

Van Hoek, R.I. & Erasmus (2000). From reversed logistics to green supply chains, *Logistics Solutions Issue*, 2, 28-33.

Verma, A. S., (2014). Sustainable supply chain management practices: selective case studies from Indian hospitality industry, *International Management Review*, 10(2), 13-23.

Walker, H., Di Sisto, L. & McBain, D. (2008), Drivers and barriers to environmental supply chain management practices: lessons from the private and public sectors, *Journal of Purchasing & Supply Management*, Vol.1. 14 No.1, pp.69-85.

Wiedmann, T. & Minx, J., (2007). A definition of 'Carbon Footprint'. *In: C.C. Pertsova, Ecological Economics Research Trends*: Chapter 1, 1-11, Nova Science Publishers, Hauppauge NY.

Wiese, A., Kellner, J., Lietke, B. & Toporowski, W., (2012). Sustainability in retailing- a summative content analysis, *International Journal of Retail and Direction Management*, 40(4), 318-335.

Wilson, J. P., (2015). The triple bottom line- undertaking an economic, social and environmental retail sustainability strategy, *International Retail and Distribution Management*, 43(4), 432- 447.

Winderlich, N. V. (2009). Qualitative Research Methodology, Chapter 5, pp.93-95. springer.com/chapter/10.1007%2F978-3-8349-8533-0_5

Velasquez, M., (2009). State of the art in e-commerce carbon foot printing, *Journal of Internet Banking and Commerce*, 14(3), 1-21.

Vickery, S.K., Jayaram, T., Droge, C., & Calantone, R., (2003). The effects of an integrative supply chain strategy on customer service and financial performance: an analysis of direct versus Indirect Relationships. *Journal of Operations Management*, 21, 523-557.

Zsidisin, G. & Siferd, S.P., (2001). Environmental Purchasing: a framework for theory development, *European Journal of Purchasing & Supplying Management*, 7, 1-73.

RESUME

Selen BEDÜK

She graduated from Bilkent University English Language and Literature in 1999. After working as a lecturer in Northern Cyprus Eastern Mediterranean University, Yeditepe University, Marmara University and Okan University she started to work at Maltepe University School of Foreign Languages. As of November 2014, she has been charged as a research assistant in the Faculty of Economics and Business Administration International Trade and Logistics Department at the same university. She got her first Master's Degree in Yeditepe University English Language and Literature and her second Master's degree at Maltepe University International Trade and Logistics with the scope of interdisciplinary approach.