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Operations Research Management of Logistics and Supply Chain: Its Issues and Directions of Scope

Ankita Sharma[1,*], Abhijeet Sinha[2]

Abstract

To improve business performance, companies use a variety of business improvement strategies. Logistics and supply chain management have long been viewed as critical factors in a company's ability to gain a competitive advantage. In fact, since the early 1980s, logistics and supply chain management have gotten a lot of attention. However, supply chain management is a difficult topic to grasp, and many authors have emphasised the significance of explicit definitional constructions and conceptual frameworks in supply chain management. This paper includes a tutorial on current research in logistics and supply chain operations management. The scope of our related research articles is outlined in this paper by first explaining the concept of logistics and supply chain management. The primary goal of this paper is to present a variety of current subjects in this field as well as instances of how these studies contribute from distinct research perspectives.

Keywords: Logistics, management, operations, research, supply chain

INTRODUCTION

Logistics is the control of the movement of goods between the place of origin and the point of consumption in order to suit specific needs, such as those of customers or enterprises. Physical objects such as food, materials, animals, equipment, and liquids, as well as abstract items such as time, information, particles, and energy, are among the resources managed in logistics. Information flow, material handling, production, packing, inventory, shipping, warehousing, and, in some cases, security are all part of the logistics of physical goods. Dedicated simulation software can model, evaluate, visualise, and optimise the complexity of logistics. Import and export logistics are driven by the desire to use as few resources as possible. Note that the preceding definition of logistics is not unified, however it may be widely accepted in the current situation. The Council of Logistics Management, for example, is now renamed as Council of Supply Chain Management Professionals.

***Author for Correspondence**
Ankita Sharma
E-mail: ankita.sharmatit@gmail.com

[1]Student, Department of Electronics and Communication Engineering, Rajiv Gandhi Technical University, Bhopal, Madhya Pradesh, India
[2]Assistant Professor, Department of Mechanical Engineering, Rajiv Gandhi Technical University, Bhopal, Madhya Pradesh, India

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As can be seen, the concept of logistics is centred on product flow, as this word is translated in Chinese. Product handling tasks such as product storage, transportation, distribution, packing, and processing are also highlighted. Traditional operations management study on logistics has focused on the areas of logistics facilities, transportation, and inventory planning, despite the fact that corporate logistics involves a wide range of activities. Supply Chain Management (section 2.2). There appears to be even less agreement on what "supply chain management" means than on what "logistics" means. SCM has been "poorly defined" according to Kathawala and Abdou [1] with "a great degree of variance in people's opinions about what is intended”. Nonetheless, we provide Mentzer et al. definition, which is a widely accepted definition [2] which is rather broad, not confined to any specific discipline area, and adequately reflecting the breadth of issues that are usually covered under this term: “Supply chain management is defined as the systematic, strategic coordination of traditional business functions and tactics across these business functions within a company and across businesses within the supply chain, with the goal of improving the long-term performance of individual companies and the supply chain as a whole”. Because they are both integrally tied to product circulation across its entire life cycle, and both have been recognised as the basic unit of competitive analysis in model management science, the terms “logistics” and “supply chain” are widely used interchangeably in academia and industry. In general, supply chain refers to a broader notion that encompasses other related topics such as network sourcing, supply pipeline management, value chain management, and value stream management [3–5]. Furthermore, we can see that the notion of logistics has no relation to organisation, which is the polar opposite of supply chain, because supply chain is made up of various organisations, most commonly companies. One of the most significant aspects of supply chain management is that corporations will not aim to reduce costs or increase profits at the expense of their supply chain partners, but rather to enhance the supply chain as a whole. As a result, a basic principle in the discipline of supply chain management is that supplier chains compete rather than single companies [6]. A central research methodology for supply chain management is game theory (and also incentive theory for the scenario of incomplete information). Hot topics, we are unable to provide a full assessment in one document due to the wide scope of study in operations management, logistics, and supply chain management. In this area, we highlight a few of the most pressing concerns and hot themes in recent research that have piqued the interest of both academia and industry.

MANAGEMENT OF INVENTORY AND TRANSPORTATION IN SPECIFIC FIELDS

As mentioned in the preceding section, the traditional domains of inventory (including production planning) and transportation management are still the focus of operations research in logistics management. However, a notable trend is that most articles focus on specialised sectors with notable traits incorporated in their models, thereby contributing to the literature in novel ways. For example, perishable product inventory management (also known as deteriorating product inventory management) is a rather ancient and mature area in logistics and supply chain management, with inventory replenishment strategies being the primary focus of research. Whitin [7] looked into a problem with fashion goods decaying at the conclusion of particular storage periods. This branch of research has gotten a lot of attention since then. Nahmias [8] presents a thorough review of research that was published prior to the 1980s. Raafat [9] and Goyal and Giri’s [10] publications, which examine relevant material published in the 1980s and 1990s, respectively, are current studies on the degrading inventory models. Blackburn and Scudder's [11] publication provides a more recent update. New models, on the other hand, can still be built to capture contemporary management features and provide new managerial insights. A perishable product can suffer from two types of perishable loss: quantity loss and quality loss. The majority of the research has focused on a single sort of loss. Cai et al. [12] use a stochastic model to investigate a supply chain in which a distributor purchases a quantity of a fresh product from a manufacturer. The distributor must make a suitable effort to preserve the freshness of the product throughout transit, and his performance in this regard has an impact on both the quality and quantity of the product delivered to the market. Cai et al. [13] extend the model to a three-stage supply chain that includes transportation outsourcing. Transportation is another essential subject. The VRP (vehicle routing problem) and its numerous extensions have been the subject of much investigation. Other new domains in transportation, on the other hand, can still be attractive themes. For example, the amazing growth in intermodal transportation over the last decade has not been matched by a corresponding level of academic engagement, therefore intermodal transportation research appears to have a lot of promise. Chang [14] looks at how to choose the optimum routes for shipments through the international intermodal network, which is one of the intermodal operational difficulties. A multiobjective multimodal multicommodity flow issue with time windows and concave costs is formulated, and an effective heuristic is suggested. Vermaa and Verter [15] present a first attempt at developing an analytical framework for planning rail-truck intermodal transportation of hazardous materials by developing a biobjective optimization model to plan and manage intermodal shipments to represent current practice; the model's routing decisions are driven by the customers' delivery times. Bruns and Knust [16] investigated the issue of train load planning in intermodal container terminals. The goal is to assign load units to train wagons in such a way that the train's usage is maximised while setup and transportation costs in the terminal are reduced. Bruns et al. [17] delved deeper into the issue of train load planning in intermodal container terminals. The purpose of load planning is to choose wagon settings and assign load units to train wagons in such a way that train utilisation is maximised while setup and transportation expenses in the terminal are reduced. Garc'a et al. [18] used a new hybrid strategy that combines OR approaches with AI search methods to achieve high-quality answers for complicated multimodal transportation problems, incorporating the advantages of both types of techniques. The approach was tested on a real-world situation from one of Spain's leading intermodal transportation companies. In the supply chain 3.2, sourcing and marketing, the first step in a supply chain is sourcing. In recent years, there has been a lot of source study. This gives a supplier the opportunity to increase efficiency over time by further streamlining production procedures. In general, OEMs delegating more development and engineering work to their suppliers, which necessitates difficult jobs and specialised products, implies a major opportunity for a supplier to gain knowledge and expertise through learning, lowering costs over time [19–21]. The negotiation is influenced by the dynamic change in supply costs. The use of auctioning in the sourcing strategy is a notable topic. Chen's [22] study of a procurement dilemma with one buyer and numerous possible suppliers who have private information about their own production costs could be one of the first in this area. The buyer should adopt an effective procurement approach in which he defines a payment for each conceivable purchase amount and then asks suppliers to bid on the contract. The English auction, the Dutch auction, the first-priced auction, sealed bid auction, and the Vickrey auction are all examples of auction formats. Chen and Vulcano [23] investigated a supply chain in which one upstream supplier auctions off a bundle of goods or capacity, resulting in a two-stage supply chain with a single supplier and two resellers. Huh and Janakiraman [24] investigated periodic-review inventory replenishment problems with auctions and other sales channels, demonstrating that the optimality of (s, S) inventory replenishment policies extends far beyond the traditional sales environments studied in the inventory literature thus far. Chen et al. [25, 26] look at a supply chain in which a single buyer wants to buy a package of products or services from a number of competing suppliers, all of whom have access to private cost information, and show how the buyer can maximise profit while also coordinating the channel by using a contract scheme that includes auctions, audits, and profit sharing. For a supplier of crucial and bespoke components, demand is heavily influenced by and thus vulnerable to, variations in final product demand. Due to increased consumer choice, one of the major issues faced by manufacturers in the car industry is the variable and unclear domestic volume of particular models [27]. Short product life cycles and high demand uncertainty are well-known risks in the consumer electronics sector [28]. In addition, there is usually more uncertainty about future demand than there is about current demand. Apart from probable supplier switching (in a short-term partnership), this demand uncertainty adds another element of future uncertainty that effects the initial capacity investment choice. Another end of the supply chain is marketing. Collaboration with marketing science broadens the scope of supply chain management significantly. The three most essential aspects in this regard are pricing, promotion, and channel management. Pricing and promotion are the most important aspects of marketing management, especially when taking into account the supply chain environment. By modelling the dynamic pricing problem and finding the best prices for both the old and new products, Li and Graves [29] investigated pricing decisions during intergenerational product transfer. For each product, the optimal initial inventory is established, and a heuristic method is explained. Li and Zhang [30] investigated a seller's presale technique for selling a perishable commodity in an uncertain market with heterogeneous customers. They discovered that correct demand information can increase product availability, putting the seller's ability to charge a high preorder price in jeopardy. As a result of the negative influence on the preorder season, advance demand knowledge may affect the seller's profit. Over an infinite horizon, Sainathan [31] explored pricing and ordering decisions posed by a retailer selling a perishable commodity with a two-period shelf life. Sinitsyn [32] examined the outcome of a price competition between two enterprises, each of which produces two complimentary products. Data from the shampoo and conditioner categories, as well as the cake mix and cake frosting categories, show that each company prefers to promote its complementing items together. In a model of two competitive manufacturer-retailer supply chains selling partially substitutable products with potentially different market sizes, Liu et al. [33] investigate the efficacy of cost sharing. Some unexpected data show that if the unit profit margin is protected, the companies doing the advertising would rather absorb the entire expense. The weather-conditional rebate scheme, according to Gao et al. [34], can enhance sales by price discriminating among a customer's post-purchase states. Taking advantage of early purchases can minimise inventory holding costs and ordering costs, resulting in higher predicted profits for the store. Furthermore, channel management serves as a vital link between marketing and the supply chain. Chen et al. [25, 26] investigated the challenge of a manufacturer maintaining his direct online sales channel alongside an independently owned bricks-and-mortar retail channel when the channels compete in terms of service. They find the best dual channel solutions based on the channel environment, which includes things like the expense of managing a direct channel, retailer inconvenience, and product characteristics. Brynjolfsson et al. [35] look at local market dynamics for traditional shops and then compare their findings to a dataset on consumer demand obtained through two direct channels: the Internet and catalogue. Their findings reveal that when selling mainstream products, Internet retailers face severe competition from brick-and-mortar stores, but that when selling specialist products, they are essentially unaffected. In a channel context with bilateral monopolies, Guo [36] analysed optimal disclosure strategies/formats and finds that retail disclosure leads to higher equilibrium information reveal. Chiang [37] applied the single-period vertical pricing interaction in a manufacturer-retailer dyad to a multiperiod context, in which a manufacturer distributes a durable product to an exhaustible population of consumers with heterogeneous reservation prices through an exclusive retailer. This dynamic pricing game’s open-loop, feedback, and myopic equilibria are investigated and compared to the centralised solution Green Logistics and Supply Chain are two terms that are used interchangeably. Green logistics is a type of logistics that uses modern logistics technology to design and implement green transportation, storage, packaging, circulation processing, recovery, and other activities. Its goal is to reduce environmental pollution and resource consumption caused by logistical activities, resulting in a "win-win" situation in terms of logistics development and environmental preservation. Green logistics has received more attention as an important route for achieving the sustainable development plan, as it will play a major role in industry upgrading, economic structure transformation, logistical development level promotion, and other related elements. Green supply chain management has the same goals and implications as traditional supply chain management. “Sustainable” management is often used to describe green logistics and supply chain management. Reverse logistics, also known as closed-loop supply chains, is a common field in green logistics and supply chain management, in which used products (postconsumer) are returned to manufacturers. In remanufacturing systems, there has been a lot of research on production planning and inventory management.

LITERATURE REVIEW

Simpson [38] investigated the optimality of a three-parameter inventory policy in a periodic review inventory system with stochastic and mutually dependent needs and returns. Kelle and Silver [39] proposed a new model that includes separate demand and return procedures, with all returned products being remanufactured. When lead times for remanufacturing and manufacturing are same, Inderfurth [40] showed that the optimal policy determined by Simpson [38] is still optimal in the situation of fixed cost. Van der Laan et al. [41] investigated a hybrid system’s push and pull control strategies and compare them to traditional systems without remanufacturing. Teunter and his colleagues [42] explored the superior inventory strategies for hybrid manufacturing/remanufacturing systems with a long lead time for manufacturing and a short lead time for remanufacturing. Wang et al. [43] investigated the effects of the number of goods created and the proportion of remanufactured parts to returned products on the total cost of the hybrid system, finding that these two important parameters can greatly reduce the cost. Kiesmuller [44], Tang and Grubbstrom [45], and Aras et al. [46] are in other relevant works. I recommend Fleischmann et al. [47], for a comprehensive assessment, see Dekker et al. [48] and Ilgin and Gupta [49]. A typical component of reverse logistics and closed-loop supply chains is the quality uncertainty of acquired old goods, which is commonly expressed by a random remanufacturing yield and has been investigated in various recent researches. Inderfurth [50] shows that in a reverse logistics system, unpredictability in returns and demand might be a barrier to an environmentally friendly recovery plan. Under the consideration of random disassembly yields, Inderfurth and Langella [51] created heuristics for the problem of getting parts for remanufacturing by disassembling used items or procuring new ones. Galbreth and Blackburn [52] investigated acquisition and sorting/remanufacturing policies for cores with a fixed quality distribution and a continuum of quality levels. The basic concept is that remanufacturing costs will be reduced if only better-quality returned products are remanufactured. By first analysing a simple single-period model and then proving that the results carry over to a multiperiod setting, Ketzenberg et al. [53] investigated the value of information in the context of a firm that faces uncertainty with respect to demand, product return, and product remanufacturing yield. C orbacioglu and van der Laan [54] investigated a two-product system in which the end-product stock contains both manufactured and remanufactured items, with the remanufacturable stock including products of varying quality. Zikopoulos and Tagaras [55] analysed the production problem in a reverse supply chain with two collecting sites and a refurbishment site, and how uncertainty about the quality of returned products affects the profitability of reuse activities. When the inputs to the remanufacturing system have diverse and unknown quality levels and capacity limits, Denizel et al. [56] presented a stochastic programming approach to tackle the remanufacturing production planning problem. Despite the fact that there is a lot of study on remanufacturing systems, there are just a few articles that look at a market-driven acquisition channel for used products. The initial studies in this sector were conducted by Guide and Jayaraman [57] and Guide and van Wassenhove [58], who highlighted the necessity of used product acquisition management in dealing with the uncertainty in the timing, amount, and quality of returned products. Guide et al. [59] proposed a quantitative model to predict the best acquisition pricing for used products and the best selling prices for remanufactured products, assuming that the acquisition price has complete control over the quantity of return items. Bakal and Akcali [60] expand Guide et al. [59] model to the case of random remanufacturing yield and examine how yield affects remanufacturing profitability. The challenge of calculating the ideal acquisition price of end-of-life products and the selling price of remanufactured parts under centralised and decentralised remanufacturer-driven and collector-driven decentralised channels is investigated by Karakayali et al. [61]. Operations on consumer behaviour decisions are critical for businesses to achieve a competitive advantage and increase profits. Loss aversion, risk aversion, regret, and strategic behaviour are all examples of consumer behaviour, and papers that incorporate these variables are becoming increasingly essential [62]. Consumer choice is modelled using the nested multinomial logit framework with two different hierarchical structures: a brand-primary model in which consumers choose a brand first and then a product type within that brand, and a type-primary model in which consumers choose a product type first and then a brand within that product type. Nasiry and Popescu [63] investigated the dynamic pricing implications of a new, behaviorally motivated reference price mechanism based on the peak-end memory mode, in which customers anchor on a reference price that is a weighted average of the lowest and most recent prices. They discover that for the corresponding dynamic pricing problem, a set of constant pricing strategies is best. In an advance selling scenario where buyers have unclear valuations, Nasiry and Popescu [64] analysed the impact of anticipated regret on consumer purchases as well as business profitability and policies. Using the rational expectations paradigm, Tereyago glu and Veeraraghavan [65] developed a model that covers pricing and production decisions for a firm. They show that enterprises may provide high availability of commodities despite visible consumption, and scarcity methods become more difficult to implement as demand unpredictability increases. In Parlakturk [66], a company sells two vertically (quality) distinct items to strategically forward-looking consumers across two periods, with pricing determined dynamically in each time. When two product variants are compared to a single-product benchmark, the loss due to strategic customer behaviour is shown to be lower, indicating that product variety can be used as a lever when dealing with strategic consumers. Cachon and Swinney [67] investigated a shop selling an uncertain-demand product over a limited selling season to three categories of customers: myopic, bargain-hunting, and strategic. They discovered that if strategic consumers are present, the merchant inventories less, takes smaller price cuts, and earns less profit, and that a retailer should generally avoid committing to a price path across the season. Another line of investigation focuses on the supply chain firms' risk attitudes. Lau's [68] might be the first piece of work that studies the newsvendor boy problem under mean-variance framework, which takes the variance of system profit or cost into the utility function. Other recent works employing similar methodology to investigate supply chain problem include H. S. Lau and A. H. L. Lau [69] on supply chain model with return policy, Buzacott et al. [70] on the commitment-option contracts, Choi et al. [71] on channel coordination, and Wei and Choi [72] on wholesale pricing and profit sharing scheme. Future directions and insights of the following observations and future directions in the field of logistics and supply chain management can be gleaned from the aforementioned investigation. First and foremost, the logistics issue of people's livelihood becomes a heated topic. Perishable, fashion, and electrical products, all of which have a short life cycle, have been the focus of previous research in this field. City logistics, emergency logistics, and the agriculture supply chain are all hot subjects right now. Second, new directions in logistics and supply chain management may arise as the economy and technology advance. Information technology is a great illustration of this, as it makes e-business research and choosing proper distribution channels much easier. RFID, cloud computing, and big data are all hot subjects right now, and they could become important research areas in the future. Third, environmental research will remain a top priority. Resource scarcity, ecological devastation, environmental degradation, and other challenges have sparked widespread concern as the world's population and economic scale continue to grow. The international society has come to the conclusion that adopting a greener economic pattern and lifestyle is the greatest method to attain socioeconomic sustainability. By boosting investment in green logistics and supply chains, establishing and implementing various bills, plans, and strategies, and improving the implementation of green economic development policies, many countries generate a new outlook in industrial and technical rivalry. The future scope of this topic will include remanufacturing, reverse logistics, and closed-loop supply chains. Low-carbon challenges could be a fascinating area of study.

CONCLUSIONS

Finally, multimethodology is an essential future research direction. Major research approaches in operations management have traditionally been divided into various categories, including theoretical modelling, computing and simulations, surveys, cases, event studies, and behavioural experiments. In recent years, there has been a growing tendency toward mixing several research approaches to investigate logistics and supply chain management research concerns. When it comes to supply chain coordination, for example, some articles develop models and test their conclusions using real-world instances, while others undertake behavioural experiments with the purpose of determining the real-world relevance of theoretical models. Furthermore, the number of articles presenting novel applications of established methodology, such as cooperative games and behaviour operations, is predicted to steadily increase.

REFERENCES

1. YK Kathawala, K Abdou. Supply chain evaluation in the service industry: A framework development compared to manufacturing. Managerial Auditing Journal. 2003; 18(2): 140–149.
2. JT Mentzer, W DeWitt, JS Keebler, et al. Defining supply chain management. Journal of Business Logistics. 2001; 22(2): 1–25.
3. R Lamming, J Hampson. The environment as a supply chain management issue. The British Journal of Management. 1996; 7(1): S45–S62.
4. MJ Saunders. Strategic Purchasing and Supply Chain Management. London, UK: Pitman; 1997.

5. MJ Saunders. Making strategic decisions and actions in purchasing and supply chain management. Proceedings of the 6th International IPSERA Conference. Naples, Italy, 1997. pp. T1/6 1–T1/6 9.
6. S Croom, P Romano, M Giannakis. Supply chain management: An analytical framework for critical literature review. European Journal of Purchasing and Supply Management. 2000; 6(1): 67–83.
7. TM Whitin. Theory of Inventory Management. NJ, USA: Princeton University Press, Princeton; 1957.
8. S Nahmias. Perishable inventory theory: A review. Operations Research. 1982; 30(4): 680–708.
9. F Raafat. Survey of literature on continuously deteriorating inventory models. Journal of the Operational Research Society. 1991; 42(1): 27–37.
10. SK Goyal, BC Giri. Recent trends in modeling of deteriorating inventory. European Journal of Operational Research. 2001; 134(1): 1–16.
11. J Blackburn, G Scudder. Supply chain strategies for perishable products: The case of fresh produce. Production and Operations Management. 2009; 18(2): 129–137.
12. XQ Cai, J Chen, YB Xiao, XL Xu. Optimization and coordination of fresh product supply chains with freshness keeping effort. Production and Operations Management. 2010; 19(3): 261–278.
13. XQ Cai, J Chen, YB Xiao, XL Xu, G Yu. Fresh-product supply chain management with logistics outsourcing. Omega. 2013; 41(4): 752–765.
14. TS Chang. Best routes selection in international intermodal networks. Computers and Operations Research. 2008; 35(9): 2877–2891.
15. M Verma, V Verter. A lead time-based approach for planning rail-truck intermodal transportation of dangerous goods. European Journal of Operational Research. 2010; 202(3): 696–706.
16. F Bruns, S Knust. Optimized load planning of trains in intermodal transportation. OR Spectrum. 2012; 34(3): 511–533.
17. F Bruns, M Goerigk, S Knust, A Schobel. Robust load planning of trains in intermodal transportation. OR Spectrum. 2013; 36(3): 631–638.
18. J Garc´ıa, JE Florez, A Torralba, et al. Combining linear programming and automated planning to solve intermodal transportation problems. European Journal of Operational Research. 2013; 227 (1): 216–226.
19. R Monczka, R Trent, R Handfield. Purchasing and Supply Chain Management. Mason, Mich, USA: Thomson South-Western; 2005.
20. J Gray, B Tomlin, A Roth. The effect of learning and strategic behavior on manufacturing outsourcing decisions. Working Paper, Kenan-Flagler Business School, University of North Carolina; 2005.
21. TR Lewis, H Yildirim. Managing dynamic competition. The American Economic Review. 2002; 92(4): 779–797.
22. F Chen. Auctioning supply contracts. Management Science. 2007; 53(10): 1562–1576.
23. YJ Chen, G Vulcano. Effects of information disclosure under first-and second-price auctions in a supply chain setting. Manufacturing and Service Operations Management. 2009; 11(2): 299–316.
24. WT Huh, G Janakiraman. Inventory management with auctions and other sales channels: Optimality of (s, S) policies. Management Science. 2008; 54(1): 139–150.
25. K-Y Chen, M Kaya, O Ozer. Dual sales channel management with service competition. Manufacturing and Service Operations Management. 2008; 10(4): 654–675.
26. YJ Chen, S Seshadri, E Zemel. Sourcing through auctions and audits. Production and Operations Management. 2008; 17(2): 121–138.
27. B Anderson. GM's global supply footprint. Proceedings of the Supplier Industry in Transition: The New Geography of Auto Production. 2006.
28. J Carbone. What buyers look for in contract manufacturers. Purchasing. 2000; 128(4): 32–38.
29. H Li, SC Graves. Pricing decisions during intergenerational product transition. Production and Operations Management. 2012; 21(1): 14–28.
30. C Li, F Zhang. Advance demand information, price discrimination, and preorder strategies. Manufacturing and Service Operations Management. 2013; 15(1): 57–71.

31. A Sainathan. Pricing and replenishment of competing perishable product variants under dynamic demand substitution. Production and Operations Management. 2013; 22(5): 1157–1181.
32. M Sinitsyn. Coordination of price promotions in complementary categories. Management Science. 2012; 58(11): 2076–2094.
33. B Liu, G Cai, AA Tsay. Advertising in asymmetric competing supply chains. Production and Operations Management. 2013; 23(11).
34. F Gao, OC Demirag, FY Chen. Early sales of seasonal products with weather-conditional rebates. Production and Operations Management. 2012; 21(4): 778–794.
35. E Brynjolfsson, Y Hu, MS Rahman. Battle of the retail channels: How product selection and geography drive cross channel competition. Management Science. 2009; 55(11): 1755–1765.
36. L Guo. Quality disclosure formats in a distribution channel. Management Science. 2009; 55(9): 1513–1526.
37. W-YK Chiang. Supply chain dynamics and channel efficiency in durable product pricing and distribution. Manufacturing and Service Operations Management. 2012; 14(2): 327–343.
38. VP Simpson. Optimum solution structure for a repairable inventory problem. Operations Research. 1978; 26(2): 270–281.
39. P Kelle, EA Silver. Forecasting the returns of reusable containers. Journal of Operations Management. 1989; 8(1): 17–35.
40. K Inderfurth. Simple optimal replenishment and disposal policies for a product recovery system with lead times. OR Spectrum. 1997; 19(2): 111–122.
41. E Van der Laan, M Salomon, R Dekker, L Van Wassenhove. Inventory control in hybrid systems with remanufacturing. Management Science. 1999; 45(5): 733–747.
42. R Teunter, E Van der Laan, D Vlachos. Inventory strategies for systems with fast remanufacturing. Journal of the Operational Research Society. 2004; 55(5): 475–484.
43. J Wang, J Zhao, X Wang. Optimum policy in hybrid manufacturing/remanufacturing system. Computers and Industrial Engineering. 2011; 60(3): 411–419.
44. GP Kiesmuller. A new approach for controlling a hybrid ¨stochastic manufacturing/remanufacturing system with inventories and different lead times. European Journal of Operational Research. 2003; 147(1): 62–71.
45. O Tang, RW Grubbstrom. Considering stochastic leadtimes in a manufacturing/remanufacturing system with deterministic demands and returns. International Journal of Production Economics. 2005; 93-94(1): 285–300.
46. N Aras, V Verter, T Boyaci. Coordination and priority decisions in hybrid manufacturing/remanufacturing systems. Production and Operations Management. 2006; 15(4): 528–543.
47. M Fleischmann, JM Bloemh of-Ruwaard, R Dekker, E van der Laan, JAEE van Nunen, LN van Wassenhove. Quantitative models for reverse logistics: A review. European Journal of Operational Research. 1997; 103(1): 1–17.
48. R Dekker, M Fleischmann, K Inderfurth, LN Van Wassenhove. Reverse Logistics: Quantitative Models for Closed Loop Supply Chains. NY, USA: Springer, New York; 2004.
49. MA Ilgin, SM Gupta. Environmentally conscious manufacturing and product recovery (ECMPRO): A review of the state of the art. Journal of Environmental Management. 2010; 91(3): 563–591.
50. K Inderfurth. Impact of uncertainties on recovery behavior in a remanufacturing environment: A numerical analysis. International Journal of Physical Distribution and Logistics Management. 2005; 35(5): 318–336.
51. K Inderfurth, IM Langella. Heuristics for solving disassemble-to-order problems with stochastic yields. OR Spectrum. 2006; 28(1): 73–99.
52. MR Galbreth, JD Blackburn. Optimal acquisition and sorting policies for remanufacturing. Production and Operations Management. 2006; 15(3): 384–392.
53. ME Ketzenberg, EA van der Laan, RH Teunter. Value of information in closed loop supply chains. Production and Operations Management. 2006; 15(3): 393–406.

54. UC Orbacioglu, EA van der Laan. Setting the holding cost rates in a two-product system with remanufacturing. International Journal of Production Economics. 2007; 109(1–2): 185–194.
55. C Zikopoulos, G Tagaras. Impact of uncertainty in the quality of returns on the profitability of a single-period refurbishing operation. European Journal of Operational Research. 2007; 182(1): 205–225.
56. M Denizel, M Ferguson, GC Souza. Multiperiod remanufacturing planning with uncertain quality of inputs. IEEE Transactions on Engineering Management. 2010; 57(3): 394–404.
57. VDR Guide Jr, V Jayaraman. Product acquisition management: Current industry practice and a proposed framework. International Journal of Production Research. 2000; 38(16): 3779–3800.
58. VDR Guide Jr., LN Van Wassenhove. Managing product returns for remanufacturing. Production and Operations Management. 2001; 10(2): 142–155.
59. VDR Guide Jr, RH Teunter, LN van Wassenhove. Matching supply and demand to maximize profits from remanufacturing. Manufacturing and Service Operations Management. 2003; 5(4): 303–316.
60. IS Bakal, E Akcali. Effects of random yield in remanufacturing with price-sensitive supply and demand. Production and Operations Management. 2006; 15(3): 407–420.
61. I Karakayali, H Emir-Farinas, E Akcali. An analysis of decentralized collection and processing of end-of-life products. Journal of Operations Management. 2007; 25(6): 1161–1183.
62. AG Kok, Y Xu. Optimal and competitive assortments with endogenous pricing under hierarchical consumer choice models. Management Science. 2011; 57(9): 1546–1563.
63. J Nasiry, I Popescu. Dynamic pricing with loss-averse consumers and peak-end anchoring. Operations Research. 2011; 59(6): 1361–1368.
64. J Nasir, I Popescu. Advance selling when consumers regret. Management Science. 2012; 58(6): 1160–1177.
65. N Tereyago Glu, S Veeraraghavan. Selling to conspicuous consumers: Pricing, production, and sourcing decisions. Management Science. 2012; 58(12): 2168–2189.
66. AK Parlakturk. The value of product variety when selling to strategic consumers. Manufacturing and Service Operations Management. 2012; 14(3): 371–385.
67. GP Cachon, R Swinney. Purchasing, pricing, and quick response in the presence of strategic consumers. Management Science. 2009; 55(3): 497–511.
68. HS Lau. The newsboy problem under alternative optimization objectives. Journal of the Operational Research Society. 1980; 31(6): 525–535.
69. HS Lau, AHL Lau. Manufacturer’s pricing strategy and return policy for a single-period commodity. European Journal of Operational Research. 1999; 116(2): 291–304.
70. J Buzacott, H Yan, H Zhang. Risk analysis of commitment-option contracts with forecast updates. Toronto, Canada: Working Paper, York University; 2003.
71. TM Choi, D Li, H Yan, C-H Chiu. Channel coordination in supply chains with agents having mean-variance objectives. Omega. 2008; 36(4): 565–576.
72. Y Wei, TM Choi. Mean-variance analysis of supply chains under wholesale pricing and profit sharing schemes. European Journal of Operational Research. 2010; 204(2): 255–262.

