May 7, 2025

Articles to be Reviewed

IE-517 – Closed-Loop Supply Chain Management

Emek Irmak	Furkan Ertürk
2444693	2740215

The following journal articles have been selected for the literature review on "Design of Logistics Networks in Closed-Loop Supply Chains".

1. **Fleischmann, M., Bloemhof-Ruwaard, J. M., Dekker, R., Van der Laan, E., Van Nunen, J. A., & Van Wassenhove, L. N. (1997). Quantitative models for reverse logistics: A review. European journal of operational research, 103(1), 1-17.**

   Reviews quantitative models for planning and improving reverse logistics, offering useful approaches for designing networks that handle returns and recovery activities.

2. **Srivastava, S. K. (2008). Network design for reverse logistics. Omega, 36(4), 535-548.**

   Discusses models and strategies for designing reverse logistics networks, helping to structure systems that efficiently manage the flow of returned products.

3. **Lieckens, K., & Vandaele, N. (2007). Reverse logistics network design with stochastic lead times. Computers & Operations Research, 34(2), 395-416.**

   Models a reverse logistics network under uncertainty, particularly focusing on stochastic lead times for returned products.

4. **Melo, M. T., Nickel, S., & Saldanha-Da-Gama, F. (2009). Facility location and supply chain management–A review. European journal of operational research, 196(2), 401-412.**

   Surveys facility location models in supply chain management, highlighting how network design must evolve when incorporating reverse logistics.

5. **Salema, M. I. G., Barbosa-Povoa, A. P., & Novais, A. Q. (2007). An optimization model for the design of a capacitated multi-product reverse logistics network with uncertainty. European journal of operational research, 179(3), 1063-1077.**

The authors propose a mixed-integer linear programming model to design a reverse logistics network with multiple products and uncertain parameters.

6. **Jayaraman, V., Patterson, R. A., & Rolland, E. (2003). The design of reverse distribution networks: models and solution procedures. European journal of operational research, 150(1), 128-149.**

   This paper develops models and heuristic algorithms for designing efficient reverse logistics networks, focusing on remanufacturing and disposal.

7. **Ferri, G. L., Chaves, G. D. L. D., & Ribeiro, G. M. (2015). Reverse logistics network for municipal solid waste management: The inclusion of waste pickers as a Brazilian legal requirement. Waste Management, 40, 173-191.**

   A practical case study illustrating how reverse logistics networks are implemented for municipal waste collection and recycling in Brazil.

8. **Govindan, K., Soleimani, H., & Kannan, D. (2015). Reverse logistics and closed-loop supply chain: A comprehensive review to explore the future. European journal of operational research, 240(3), 603-626.**

   This recent and influential paper provides a detailed review of CLSC research trends, gaps, and future research directions, especially in network design and sustainability.

9. **Roghanian, E., & Pazhoheshfar, P. (2014). An optimization model for reverse logistics network under stochastic environment by using genetic algorithm. Journal of Manufacturing Systems, 33(3), 348-356.**

   This paper proposes an optimization model for designing reverse logistics networks under uncertainty, using genetic algorithms to handle stochastic conditions and improve network efficiency.

10. **XiaoYan, Q., Yong, H., Qinli, D., & Stokes, P. (2012). Reverse logistics network design model based on e-commerce. International Journal of Organizational Analysis, 20(2), 251-261.**

    This study develops a reverse logistics network model tailored to e-commerce, aiming to optimize the cost and service performance of return processes in online retail environments.