

Dr Saurabh Agrawal

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Qualifications

B.E. (UOR, Roorkee), M. Tech. (IIT, Delhi), MBA (OSU, USA), PhD (DTU, Delhi)

Experience Working in DTU since July 2010.

Areas of Interest

Supply Chain Management, Reverse Logistics, Industrial Engineering, Data Analytics

Select Paper(s) Published in Peer Reviewed Referred International Journals

- D Kumar, S Agrawal, RK Singh, RK Singh (2024). IoT-enabled coordination for recommerce circular supply chain in the Industry 4.0 era. Internet of Things.
- N Kulshrestha, S Agrawal, D Shree (2024). Spare parts management in industry 4.0 era: a literature review. Journal of Quality in Maintenance Engineering.
- Rizvi, S. W. H., **Agrawal, S.**, & Murtaza, Q. (2023). Automotive industry and industry 4.0- Circular economy nexus through the consumers' and manufacturers' perspectives: A case study. Renewable and Sustainable Energy Reviews, 183, 113517.
- Sahu, A., **Agrawal, S.**, & Garg, C. P. (2023). Measuring circularity of a manufacturing organization by using sustainable balanced scorecard. Environmental Science and Pollution Research, 1-15.
- Sahu, A., **Agrawal, S.**, & Kumar, G. (2023). Challenges of implementing industry 4.0 in achieving sustainable development goals: a case of Indian manufacturing organization. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 45(3), 8125-8139.
- Sahu, A., **Agrawal, S.** and Kumar, G., 2023. Triple bottom line performance of manufacturing Industry: A value engineering approach. Sustainable Energy Technologies and Assessments, 56, p.103029.
- Singh, R.K., **Agrawal, S.**, Sahu, A. and Kazancoglu, Y., 2023. Strategic issues of big data analytics applications for managing health-care sector: a systematic literature review and future research agenda. The TQM Journal, 35(1), pp.262-291.

- Chhimwal, M., **Agrawal, S.** and Kumar, G., 2023. Markovian approach to evaluate circularity in supply chain of non ferrous metal industry. *Resources Policy*, 80, p.103260.
- Rizvi, S.W.H., **Agrawal, S.** and Murtaza, Q., 2022. Circularity issues and blockchain technology in the auto industry. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 44(3), pp.7132-7144.
- **Agrawal, S.**, Kumar, D., Singh, R.K. and Singh, R.K., 2022. Analyzing coordination strategy of circular supply chain in re-commerce industry: A game theoretic approach. *Business Strategy and the Environment*.
- **Agrawal, S.**, Kumar, D., Singh, R.K. and Singh, R.K., 2022. Coordination issues in managing the reverse supply chain: a systematic literature review and future research directions. *Benchmarking: An International Journal*, (ahead-of-print).
- **Agrawal, S.**, Sahu, A. and Kumar, G., 2021. A Conceptual Framework for the Implementation of Industry 4.0 in Legal Informatics. *Sustainable Computing: Informatics and Systems*, p.100650.
- Sahu, A., **Agrawal, S.** and Kumar, G., 2021. Integrating Industry 4.0 and circular economy: a review. *Journal of Enterprise Information Management*.
- Singh, R.K., **Agrawal, S.**, Sahu, A. and Kazancoglu, Y., 2021. Strategic issues of big data analytics applications for managing health-care sector: a systematic literature review and future research agenda. *The TQM Journal*.
- Rizvi, S.W.H., **Agrawal, S.** and Murtaza, Q., 2021. Circular economy under the impact of IT tools: a content-based review. *International Journal of Sustainable Engineering*, 14(2), pp.87-97.
- Chhimwal, M., **Agrawal, S.** and Kumar, G., 2021. Challenges in the implementation of circular economy in manufacturing industry. *Journal of Modelling in Management*.
- Chhimwal, M., **Agrawal, S.** and Kumar, G., 2021. Measuring circular supply chain risk: a Bayesian network methodology. *Sustainability*, 13(15), p.8448.
- Singh, M.K., Kumar, P. and **Agrawal, S.**, 2021. An assessment of green practices in Small and Medium-sized Enterprises (SMEs) using Graph-Theoretic Matrix Approach. *Journal of Engg. Research ICARI Special Issue* pp, 11, p.21.
- Kumar, P., Singh, M.K. and **Agrawal, S.**, 2021. An analysis of customer's purchase intention towards the green products and its effect on manufacturing: A statistical approach. *Journal of Engg. Research ICARI Special Issue* pp, 1, p.10.
- **Agrawal, S.** and Singh, R.K., 2020. Outsourcing and reverse supply chain performance: a triple bottom line approach. *Benchmarking: An International Journal*.

- Singh, J., Tyagi, P., Kumar, G. and **Agrawal, S.**, 2020. Convenience store locations prioritization: a fuzzy TOPSIS-GRA hybrid approach. *Modern Supply Chain Research and Applications*. Accepted Article.
- **Agrawal, S.** and Singh, R.K., 2019. Analyzing disposition decisions for sustainable reverse logistics: Triple Bottom Line approach. *Resources, Conservation and Recycling* 150, 104448.
- Chhimwal M., **Agrawal, S.** and Kumar, G., 2019. Sustainable Supply Chain Risk Mitigation: A mixed method approach”. *International Journal of Intelligent Enterprise*, Article in Press.
- Singh, R.K. and **Agrawal, S.**, 2019. Forecasting product returns and reverse logistics performance: structural equation modelling. *Management of Environmental Quality: An International Journal*, pp.427-443.
- **Agrawal, S.**, Singh, R.K. and Murtaza, Q., 2018. Reverse supply chain issues in Indian electronics industry: a case study. *Journal of Remanufacturing* 8(3), 115-129.
- **Agrawal, S.**, Singh, R.K. and Murtaza, Q., 2016. Disposition decisions in reverse logistics: Graph theory and matrix approach. *Journal of Cleaner Production*, 137, pp.93-104.
- **Agrawal, S.**, Singh, R.K. and Murtaza, Q., 2016. Disposition decisions in reverse logistics by using AHP-fuzzy TOPSIS approach. *Journal of Modelling in Management*, 11(4), pp.932-948.
- **Agrawal, S.**, Singh, R.K. and Murtaza, Q., 2016. Triple bottom line performance evaluation of reverse logistics. *Competitiveness Review*, 26(3), pp.289-310.
- **Agrawal, S.**, Singh, R.K. and Murtaza, Q., 2016. Outsourcing decisions in reverse logistics: sustainable balanced scorecard and graph theoretic approach. *Resources, Conservation and Recycling*, 108, pp.41-53.
- **Agrawal, S.**, Singh, R.K. and Murtaza, Q., 2016. Prioritizing critical success factors for reverse logistics implementation using fuzzy-TOPSIS methodology. *Journal of Industrial Engineering International*, 12(1), pp.15-27.
- **Agrawal, S.**, Singh, R.K. and Murtaza, Q., 2015. A literature review and perspectives in reverse logistics. *Resources, Conservation and Recycling*, 97, pp.76-92.
- **Agrawal, S.**, K. Singh, R. and Murtaza, Q., 2014. Forecasting product returns for recycling in Indian electronics industry. *Journal of Advances in Management Research*, 11(1), pp.102-114.

Select Paper(s) Published in Peer Reviewed Conference Proceedings:

- Bansia, M., Varkey, J.K. and **Agrawal, S.**, “Development of a Reverse Logistics Performance Measurement System for a Battery Manufacturer”, International Conference on Materials

- Processing and Characterization (ICMPC 2014), *Procedia Materials Science*, 6, pp.1419-1427, organized by GRIET, Hyderabad, India during 8-9 March 2014. ISSN: 2211-8128
- Malik, S., Kumari, A. and **Agrawal, S.**, “Selection of locations of collection centres for reverse logistics using GTMA”, International Conference on Materials Processing and Characterization (ICMPC-2015)”, *Materials Today: Proceedings*, 2(4-5), pp.2538-2547, organized by GRIET, Hyderabad, India during 14-15 March 2015. ISSN: 2214-7853
 - Sharma, N., Meena, M. and **Agrawal, S.**, “Jeans made out of plastics”, International Conference on Materials Processing and Characterization (ICMPC-2015), *Materials Today: Proceedings*, 2(4-5), pp.3100-3106, organized by GRIET, Hyderabad, India during 14-15 March 2015. ISSN: 2214-7853
 - Singh, A., Bisht, B.S., Jain, D., Arora, T. and **Agrawal, S.**, “Supply Chain Management in Automotive Industries”, International Conference of Advance Research and Innovation (ICARI-2015) pp. 265-270, organized by IJARI held at Institution of Engineers (India), Delhi, India on 31st January 2015. ISSN: 978-93-5156-328-0
 - Jain, S., Lamba, T., Verma, V., Gupta, A. and **Agarwal, S.**, “Simulated Annealing for Vehicle Routing Problem”, International Conference of Advance Research and Innovation (ICARI-2015) pp. 261-264, organized by IJARI held at Institution of Engineers (India), Delhi, India on 31st January 2015. ISSN: 978-93-5156-328-0
 - Malik, S., Kumari, A. and **Agrawal, S.**, “Decision Making Using AHP under Reverse Supply Chain Environment for EOL Products”, International Conference of Advance Research and Innovation (ICARI-2015) pp. 337-339, organized by IJARI held at Institution of Engineers (India), Delhi, India during 31st January 2015. ISSN: 978-93-5156-328-0
 - Sharma, N., Amish, S. and **Agrawal, S.**, “Current State of Plastic Recycling in India”, International Conference of Advance Research and Innovation (ICARI-2015)”, pp. 315-317, organized by IJARI held at Institution of Engineers (India), Delhi, India during 31st January 2015. ISSN: 978-93-5156-328-0
 - Singh, P.K., Kumar, J. and **Agrawal, S.**, “Identification of critical success factor for sustainable manufacturing system”, International Conference on Production & Industrial Engineering (CPIE-2016), pp.1-12, organized by NIT, Jalandhar, India during 29-31 December 2016.
 - Jain, A.D.S., Mehta, I., Mitra, J. and **Agrawal, S.**, “Application of Big Data in Supply Chain Management”, International Conference on Materials Processing and Characterization (ICMPC-2016), *Materials Today: Proceedings*, 4(2), pp.1106-1115, organized by GRIET, Hyderabad, India during 12-13 March 2015. ISSN: 2214-7853

- Singh, P.K. and **Agrawal, S.**, “Sustainable Manufacturing System: Literature Review”, International Conference on “Recent Advances in Mechanical Engineering” (RAME-2016), pp. 459-466, organized by DTU, Delhi, India during 14-15 October 2016. ISSN: 978-194523970
- Singh, P.K., Pratap, S. and **Agrawal, S.**, “Lean Manufacturing and its optimization Techniques: A Review”, International Conference on “Advanced Production and Industrial Engineering. (ICAPIE 2016), pp. 483-491, organized DTU, Delhi, India during 9-10 December, 2016. ISSN: 978-93-85909-51-1
- Kumar, S., Tyagi, M., and **Agrawal, S.**, “Identification of Parameters for IT enabled Supply Chain Performance Measurement System”, International Conference on “Advanced Production and Industrial Engineering (ICAPIE 2016), pp. 428-433, organized by DTU, Delhi, India during 9-10 December, 2016. ISSN: 978-93-85909-51-1
- Chimmwal, M., **Agrawal, S.** and Singari R.N., “Circular Economy: A Future Perspective for Sustainable Development”, International Conference on “Advanced Production and Industrial Engineering” (ICAPIE 2017), pp. 386-392, organized by DTU during 6-7 October, 2017. ISSN: 978-93-84588-07-6
- Singh, M.K., Kumar, P., and **Agrawal, S.**, “A review of Green Practices in Indian Small and Medium Enterprises (SMEs)”, International Conference on “Advanced Production and Industrial Engineering” (ICAPIE 2017), pp. 444-452, organized by DTU, Delhi, India during 6-7 October, 2017. ISSN: 978-93-84588-07-6
- **Agrawal, S.**, “A framework for the performance evaluation of Indian retail sector”, International Conference on Advance Research and Innovation (ICARI-2018), organized by IJARI held at Institution of Engineers (India), Delhi, India on 28th January 2018.
- **Agrawal, S.**, “Role of reverse logistics in circular economy”, International Conference on Advance Research and Innovation (ICARI-2018), organized by IJARI held at Institution of Engineers (India), Delhi, India on 28th January 2018.
- **Agrawal, S.**, “Block Chain Technology”, International Conference on Advance Research and Innovation (ICARI-2018), organized by IJARI held at Institution of Engineers (India), Delhi, India on 28th January 2018.
- **Agrawal, S.**, “Transition from liner supply chain to Circular Economy”, International Conference on Emerging Trends in Science & Technology (ICETST-2018), organized by Gateway Institute of Engineering and Technology, Sonipat, India on 13th January 2018.
- **Agrawal, S.**, Kumar, P., Narang, P. and Singh, T., 2020. Challenges to Electric Vehicle Forecasting and Implementation in India. In International Conference of Advance Research & Innovation (ICARI).

Book (s)/Book Chapter (s) Published:

- **Agrawal, S.**, Singh, R.K. and Murtaza, Q., “Selling remanufactured products through proper channel in emerging economies” in “Marketing in emerging economies”, **Manakin Press, Delhi, India**, 2017, ISBN: 9789384370466
- Chawla S., **Agrawal, S.** and Rangnathan M.S., “Integrated Topsis-Moora Model for Prioritization of New Bike Selection” in Springer, Singapore, 2018, ISBN 978-981-13-6468-6
- Singh, M.K., Kumar, P. and **Agrawal, S.**, 2022. Analyzing the Green Manufacturing and Organizational Performance of the Indian SMEs. In Recent Trends in Industrial and Production Engineering (pp. 47-56). Springer, Singapore.
- Prajapati, D., **Agarwal, S.** and Murtaza, Q., 2022. Impact of covid-19 on sustainability enablers and evaluation of performance index. Materials Today: Proceedings, 56, pp.3790-3796.