

## A STUDY OF AGGREGATE PLANNING IN LOGISTICS

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### ABSTRACT

*These days, supply chain management is concerned with the movement of raw resources, goods, and information. Supply chain management includes the effective use of assets and information to meet customer needs, transfer products, services, and assets. Comprehensive planning refers to a medium-term evaluation of demand, inventories, skills, and labor utilization level. The traditional mathematical programming formulae are typically used to decrease the total operational budget. This phrasing, on the other hand, is purely commercial and ignores sustainability. This research examines traditional aggregate planning to include extra environmental and social elements to combine three fundamental characteristics of sustainability. To improve aggregate preparation efficiency, we combine these additional requirements with conventional expenses. Finally, we evaluate the models and understand the outcomes of a real-life study.*

**KEYWORDS:** *Aggregate Planning, Aggregate Production Planning, Environment, Strategy, Sustainability.*

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### REFERENCES

1. R. A. Aliev, B. Fazlollahi, B. G. Guirimov, and R. R. Aliev, "Fuzzy-genetic approach to aggregate production-distribution planning in supply chain management," *Inf. Sci. (Ny)*, 2007, doi: 10.1016/j.ins.2007.04.012.
2. M. Türkay, Ö. Saraçoğlu, and M. C. Arslan, "Sustainability in supply chain management: Aggregate planning from sustainability perspective," *PLoS ONE*. 2016, doi: 10.1371/journal.pone.0147502.
3. U. Laili and A. Riani, "ANALISIS RANTAI PASOKAN (SUPPLY CHAIN) PADA CV BIOJANNA NUSANTARA KARANGANYAR," *J. Pendidik. Insa. Mandiri*, 2015.
4. A. Singhvi, K. P. Madhavan, and U. V. Shenoy, "Pinch analysis for aggregate production planning in supply chains," 2004, doi: 10.1016/j.compchemeng.2003.09.006.
5. H. C. Liao, Y. K. Chen, and H. H. Chang, "The APP strategies selected in SCM of the hospital," *Int. J. Serv. Technol. Manag.*, 2011, doi: 10.1504/IJSTM.2011.040381.
6. J. Singhal and K. Singhal, "Holt, Modigliani, Muth, and Simon's work and its role in the renaissance and evolution of operations management," *J. Oper. Manag.*, 2007, doi: 10.1016/j.jom.2006.06.003.

7. P. R. Panchalavarapu, "Supply Chain Management: Strategy, Planning and Operation Sunil Chopra Peter Meindl," *Interfaces (Providence)*, 2003.
8. U. Venkatadri, S. Wang, B. Montreuil, and A. Srinivasan, "Demand and order planning in supply chain networks," 2004.
9. B. K. Bahinipati, "A framework for semiconductor industry supply chain planning: Perspectives of intelligent enterprise," *Int. J. Intell. Enterp.*, 2012, doi: 10.1504/IJIE.2012.052558.
10. A. Entezaminia, M. Heidari, and D. Rahmani, "Robust aggregate production planning in a green supply chain under uncertainty considering reverse logistics: a case study," *Int. J. Adv. Manuf. Technol.*, 2017, doi: 10.1007/s00170-016-9459-6.