

{tag} International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

[Volume 129](#)

-
[Number 16](#)

Year of Publication: 2015

Authors:

Babita Taygi, Ajay Singh Yadav, Sanjai Sharma, Anupam Swami

10.5120/ijca2015907008

{bibtex}2015907008.bib{/bibtex}

Abstract

This paper mainly presents a two warehouse inventory model for deteriorating items which follows the weibull deterioration rate under assumption that the deterioration rates are different in the both warehouses but deterioration cost is same in the both warehouses. The holding cost is variable and taken as linear function of time and demand is taken to be constant with the time. Salvages value is associated with the deteriorated units of inventories and Shortages are allowed in the OW and partially backlogged at the next replenishment cycle.

References

1. Balkhi, Z.T. and Benkherouf, L. [2004], "On an inventory model for deteriorating items with stock dependent and time varying demand rates", Computers & O R, 31, 223- 240.
2. Dave, U. [1989], "On a heuristic inventory-replenishment rule for items with a linearly increasing demand incorporating shortages. J O R S, 38(5), 459-463.

3. Goswami, A. and Chaudhuri, K.S. [1991], "An EOQ model for deteriorating items with a linear trend in demand", *J.O.R.S.*, 42(12), 1105-1110.
4. Mandal, M. and Maiti, M. [1999], "Inventory of damageable items with variable replenishment rate, stock-dependent demand and some units in hand", *Applied Mathematical Modeling* 23(1999), pp. 799–807.
5. Mahapatra, N.K. and Maiti, M. [2005], "Multi objective inventory models of multi items with quality and stock dependent demand and stochastic deterioration", *Advanced Modeling and optimization*, 7, 1, 69-84.
6. Panda, S., Saha, S. and Basu, M. [2007], "An EOQ model with generalized ramp-type demand and Weibull distribution deterioration", *Asia Pacific Journal of Operational Research*, 24(1), 1-17.
7. Ghosh, S., Chakrabarty, T. [2009]. An order-level inventory model under two level storage system with time dependent demand. *Opsearch*, 46(3), 335-344.
8. Wee, H.M., Yu, J.C.P., Law, S.T. [2005]. Two-warehouse inventory model with partial backordering and weibull distribution deterioration under inflation. *Journal of the Chinese Institute of Industrial Eng.*, 22(6), 451-462.
9. Mishra, V.K. and Singh, L.S., [2010], Deteriorating inventory model with time dependent demand and partial backlogging, *Applied Mathematical Sci.*,4(72),3611-3619.
10. Pareek, S., Mishra, V.K., and Rani, S., [2009], An Inventory Model for time dependent deteriorating item with salvage value and shortages, *Mathematics Today*, 25,31-39.
11. Skouri, K., I. Konstantaras, S. Papachristos, and I. Ganas, [2009]. Inventory models with ramp type demand rate, partial backlogging and Weibull deterioration rate. *European Journal of Operational Research*. *European Journal of Operational Research*, 192, 79–92.
12. V. Mishra & L. Singh, [2011]. Deteriorating inventory model for time dependent demand and holding cost with partial backlogging. *International Journal of Management Science and Engineering Management*, X(X): 1-5, 2011
13. Vinod Kumar Mishra, [2012], Inventory Model for Time Dependent Holding Cost and Deterioration with Salvage value and Shortages, *TJMCS Vol. 4 No. 1 (2012) 37 – 47*.
14. Ajay Singh Yadav, Anupam Swami [2013], A Two-Warehouse Inventory Model for Decaying Items with Exponential Demand and Variable Holding Cost, *International Journal of Inventive Engineering and Sciences (IJIES) ISSN: 2319–9598, Volume-1, Issue-5, April 2013*.
15. Hui-Ming Wee, Jonas C.P. Yu and S. T. Law [2005], Two –warehouse Inventory model with Partial backordering and Weibull Distribution Deterioration under Inflation, *JCIIE*, Vol. 22 No-6, pp 451-462.

Index Terms

Computer Science

Software Engineering

Keywords

Weibull distributed deterioration, partial backlogging, salvages value and Variable holding cost.

