

A Study of Inventory Control Technique on Construction Industry

Maheshkumar S¹ and Sindhu Vaardini U²

Post Graduate Student, M.E Construction Management, Department of Civil Engineering¹

Assistant Professor, M.E Construction Management, Department of Civil Engineering²

Kumaraguru College of Technology, Coimbatore, Tamil Nadu, India

Abstract: *Inventory control techniques are crucial in the construction industry to minimize wastage, maximize efficiency, and reduce costs. This literature review analyzes various inventory control techniques used in the construction industry, including Just-In-Time (JIT) inventory, Economic Order Quantity (EOQ), and Vendor-Managed Inventory (VMI). The review examines the advantages and disadvantages of each technique and highlights the challenges associated with their implementation in the construction industry. Additionally, the review explores the potential benefits of implementing innovative technologies such as radio frequency identification (RFID) and building information modeling (BIM) in inventory control in the construction industry. The findings suggest that the adoption of these techniques and technologies can enhance inventory control practices and improve the overall efficiency of construction projects.*

Keywords: Inventory management, Material, Procurement, Management

REFERENCES

- [1]. Al-Aidrous, A. H. M. H., Hern, N. J., Rahmawati, Y., Jahja, M., Yusof, K. W., Zawawi, N. A. W. A., & Utomo, C. (2022). Critical factors influencing inventory and procurement system of infrastructure projects. *Journal of Civil Engineering and Management*, 28(8), 634-645.
- [2]. Malik, H., & Sharma, P. K. (May 2022) Inventory Management in Construction Industry.
- [3]. Subramani, T., Nair, V. B., David, A., Ghose, B. M., & Kumar, N. S. (2017). A study of inventory management system in construction industry. *International Journal of Application or Innovation in Engineering & Management (IJAIEEM)*, 6(5), 304-311.
- [4]. Kulkarni, V., Sharma, R., Hote, M., & Civil, M. E. (2017). Factors affecting material management on construction site. *International Research Journal of Engineering and Technology*, 4(1), 474-478.
- [5]. Nanaware, M. M. R., & Saharkar, U. R. (September 2017), INTERNATIONAL JOURNAL OF ENGINEERING SCIENCES & RESEARCH TECHNOLOGY INVENTORY MANAGEMENT TECHNIQUE IN CONSTRUCTION.
- [6]. Mohopadkar, J. S., & Patil, D. P. (2017). Application of inventory management in construction industry. *International Journal on Recent and Innovation Trends in Computing and Communication*, 5(6), 229-231.
- [7]. PatilYogendra, R., & PatilDhananjay, S. (2015). Feasibility study of just in time inventory management on construction project. *International Research Journal of Engineering and Technology (IRJET)*, 2(04).
- [8]. Panigrahi, R. R., Das, J. R., Jena, D., & Tanty, G. (2015). Advance inventory management practices and its impact on production performance of manufacturing industry. *Journal of*, 11(6).
- [9]. Patil, A. R., & Pataskar, S. V. (2013). Analyzing material management techniques on construction project. *International Journal of Engineering and Innovative Technology*, 3(4), 96-100.
- [10]. Jarkas, A. M., & Bitar, C. G. (2012). Factors affecting construction labor productivity in Kuwait. *Journal of construction engineering and management*, 138(7), 811-820.
- [11]. Doloi, H., Sawhney, A., Iyer, K. C., & Rentala, S. (2012). Analysing factors affecting delays in Indian construction projects. *International journal of project management*, 30(4), 479-489.

- [12]. Nwachukwu, C. C., &Emoh, F. I. (2010). A systems approach in analysing material constraining factors to construction project management success in Nigeria. *Interdisciplinary Journal of Contemporary Research in Business*, 2(5), 90-104.
- [13]. Kazaz, A., Manisali, E., &Ulubeyli, S. (2008). Effect of basic motivational factors on construction workforce productivity in Turkey. *Journal of civil engineering and management*, 14(2), 95-106.
- [14]. Osmani, M., Glass, J., & Price, A. D. (2008). Architects 'perspectives on construction waste reduction by design. *Waste management*, 28(7), 1147- 1158.
- [15]. Toor, S. U. R., &Ogunlana, S. O. (2008). Problems causing delays in major construction projects in Thailand. *Construction management and economics*, 26(4), 395-408.
- [16]. Tam, V. W., Shen, L. Y., Fung, I. W., & Wang, J. Y. (2007). Controlling construction waste by implementing governmental ordinances in Hong Kong. *Construction Innovation*, 7(2), 149-166.
- [17]. Navon, R., &Berkovich, O. (2006). An automated model for materials management and control. *Construction Management and Economics*, 24(6), 635-646.
- [18]. Assaf, S. A., & Al-Hejji, S. (2006). Causes of delay in large construction projects. *International journal of project management*, 24(4), 349-357.
- [19]. Kadir, M. A., Lee, W. P., Jaafar, M. S., Sapuan, S. M., & Ali, A. A. A. (2005). Factors affecting construction labour productivity for Malaysian residential projects. *Structural survey*.
- [20]. Ekanayake, L. L., &Ofori, G. (2004). Building waste assessment score: design-based tool. *Building and environment*, 39(7), 851-861.
- [21]. Odeh, A. M., &Battaineh, H. T. (2002). Causes of construction delay: traditional contracts. *International journal of project management*, 20(1), 67-73.
- [22]. Manavazhi, M. R., &Adhikari, D. K. (2002). Material and equipment procurement delays in highway projects in Nepal. *International Journal of Project Management*, 20(8), 627-632.
- [23]. Makulsawatudom, A., Emsley, M., &Akintoye, A. (2001, September). Factors affecting the productivity of the construction industry in Thailand: The project managers 'perception. In *17th Annual ARCOM Conference*, University of Salford, United Kingdom (pp. 281-290).
- [24]. Ogunlana, S. O., Promkuntong, K., &Jearkjirm, V. (1996). Construction delays in a fast-growing economy: comparing Thailand with other economies. *International Journal of project management*, 14(1), 37-45.