

Streamlining Inventory Management and Warehousing - an Action Research Case Study of Multiple Mass Rapid Transit (MRT) Upgrading Projects in Singapore

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Abstract

This paper presents the action research conducted to streamline project inventory management and warehousing of multiple Mass Rapid Transit (MRT) upgrading projects in Singapore. Company A leads a consortium to design, supply, test, and commission different types of MRT upgrading projects. The project inventory management and warehousing are dedicated to each individual project. Over the years, Company A has won multiple types of upgrading projects. This has resulted in disparate project warehouses scattered all over Singapore for proximity to individual project sites. The logistics team in Company A has challenges managing the inventory of these different projects, with each at different phases of the project lifecycle completion. This case study explores solutions to streamline inventory management data flow and to optimise physical warehouse locations and possible consolidation. A cross-disciplinary approach will be taken involving data analytics, geospatial analytics and inventory management strategies to address this real-world case study. This action research is in the final stages with the paper planned for completion before the IEOM Australia conference in Melbourne.

Keywords

Action research, inventory management, data analytics, cross-disciplinary