Proceedings of the International Conference on Industrial Engineering and Operations Management

Publisher: IEOM Society International, USA DOI: 10.46254/AN15.20250236

Published: February 18, 2025

Cross-Party Collaboration in Perishable Product Logistics: Evaluating Performance Using KPIs in Logexa Warehouses

Nermine Harraz and Saleh Alghamdi

Professor, Associate Professor King Khalid University (KKU), Industrial Engineering Department Abha, Asir, KSA

Nharraz@kku.edu.sa, Syalghamdi@kku.edu.sa

Ruba Ali Alsmea, Amal Hezam Alqahtani Shatha Mesfer Alahmry and Reem Abdullah ALmutiq

Senior Industrial Engineering Student King Khalid University (KKU) Abha, Asir, KSA

Rubaa0468@gmail.com, amalhezam1@,gmail.com, ii2shxi@gmail.com, Reem1423as@gmail.com

Abstract

Enhancing storage efficiency became crucial for attaining long-term success in the logistics industry given the growing obstacles it faces, including growing demand and product diversity. Advanced inventory management techniques are necessary in this dynamic setting, which calls for a close examination of performance metrics. The primary objective of our study is to conduct a comprehensive analysis of the key performance indicators (KPIs) in Logexa warehouses, with a specific focus on those related to perishable goods. To achieve this, we plan to utilize various methodologies, including Fuzzy AHP and SNORM. Based on the identified issues, we propose corrective actions and provide recommendations for improvement. Perishable goods are sensitive to changes in the environment, storing them in warehouses can be quite difficult. To preserve their quality and safety, these items need to be stored under exact conditions. Thus, when used properly, KPIs are regarded as one of the most important instruments for enhancing the management of the storage of perishable goods.

Kevwords

Food Warehouse Management, KPIs, AHP, Performance Measurement.

Acknowledgements

For their significant assistance in finishing this research study, we would like to thank the following organizations and people. First and foremost, we want to sincerely thank our Advisor Dr.Nermain Harraz for all of her help and advice during the research. The advice and ideas from the Co.advisor Dr.Saleh Alghamdi have been useful in determining the focus and course of our investigation. The study would not have been possible without the help of the CEO of Logexa company ENG. Husam Sendi, who helped with data collection, analysis, and interpretation.

Biographies

Proceedings of the 15th International Conference on Industrial Engineering and Operations Management Singapore, February 18-20, 2025

Nermine Harraz is a professor of Industrial Engineering at KKU, on leave from Alexandria University. Her work focuses on operations research, data analysis and supply chain management, with over fifty publications and involvement in several international projects.

Saleh Alghamdi is an associate Professor of Industrial Engineering and general director of Risk Management and Business continuity at KKU. Previously, he was managing many mega projects during his position in Ericsson.

Ruba Ali Senior Industrial Engineering student, She interned at Saudi Electricity Company in 2023 and currently at Asir Municipality's Projects Agency. She have a professional training certificate from berlin technical university and previously managed the Engineering Club's media department.

Amal Hezam Senior industrial engineer at KKU with CAPM certification and extensive experience in analysis, project management, and process improvement through training at the Asir Region Municipality. Team manager at IEOM KKU, a former leader of the College of Engineering Club, and passionate about driving innovation in industrial solutions.

Reem Abdullah Senior industrial engineering student at KKU she trained at the Saudi Electricity Company in 2023 and virtual training at STC. She holds a vocational training certificate from the Technical University of Berlin and previously worked in the publishing and distribution department at IEOM.

Shatha Mesfer Senior Industrial Engineering at KKU, She trained at Central Aseer Hospital. She received her vocational training certificate from Berlin Technical University. She has obtained CAPM certification and acquired some skills such as teamwork, project management, decision making.