

Ukrainian State University of Railway Transport

Department of Management, Public Administration and HR Technologies

MECHANISMS FOR MANAGING COSTS OF ENTERPRISE LOGISTICS AND SUPPLY PROCESSES

Explanatory Report and Analytical Calculations
to the Master's Qualification Thesis
under the educational program "Sustainable Logistics and Supply Chain Management"
specialty 073 "Management"

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Prepared by the Master's Degree Student
(second-cycle higher education)
(self-performed work in full compliance
with the principles of academic integrity)
Group 210-SL-D24
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ABSTRACT

This qualification thesis comprises 19 presentation slides and 78 A4 pages of an explanatory report, including 2 figures, 8 tables, and 75 referenced sources.

Keywords: COST MANAGEMENT, LOGISTICS PROCESSES, LOGISTICS COSTS, SUPPLY ACTIVITIES, 3PL/4PL MODELS, WARTIME ECONOMY.

The object of the research is the logistics activity of an enterprise operating under wartime economic conditions.

The purpose of this qualification thesis is to substantiate an analytical approach to enterprise logistics and supply-related cost management under wartime conditions by identifying the limitations of existing cost management frameworks and developing an adapted diagnostic model for assessing and managing logistics costs in a resource-constrained environment.

The study systematises the theoretical and methodological foundations of logistics cost management.

Based on data from LLC “Daktyl” for the period 2021–2024, a comprehensive analysis of operational activities, service structure, and resource utilisation efficiency was conducted.

Adaptive mechanisms for improving the enterprise’s logistics and supply processes under wartime instability based on 3PL/4PL approaches are substantiated. These mechanisms are aimed at enhancing the transparency of logistics cost formation, optimising transport and warehousing operations, and strengthening the coordination of material and information flows within supply chains. The results may be applied by enterprises in the transport and logistics sector to increase logistics resilience and improve cost management efficiency under wartime and post-war conditions.

АНОТАЦІЯ

Дана кваліфікаційна робота включає в себе 19 слайдів презентації, 78 аркушів пояснювальної записки формату А4, що містять 2 рисунки, 8 таблиць, 75 використаних літературних джерел.

Ключові слова: УПРАВЛІННЯ ВИТРАТАМИ, ЛОГІСТИЧНІ ПРОЦЕСИ, ЛОГІСТИЧНІ ВИТРАТИ, ПОСТАЧАЛЬНИЦЬКА ДІЯЛЬНІСТЬ, 3PL/4PL-МОДЕЛІ, ВОЄННА ЕКОНОМІКА.

Об’єктом дослідження є логістична діяльність підприємства в умовах сучасних викликів воєнної економіки.

Метою кваліфікаційної роботи є обґрунтування аналітичного підходу до управління логістично-постачальницькими витратами підприємства в умовах воєнного стану шляхом виявлення обмежень існуючих підходів до управління витратами та розроблення адаптованої діагностичної моделі оцінювання й управління витратами в умовах обмежених ресурсів.

У роботі систематизовано теоретико-методологічні засади управління логістичними витратами.

На основі даних ТОВ «Дактіль» за 2021 - 2024 рр. проведено комплексний аналіз операційної діяльності, структури послуг, ефективності використання ресурсів.

Обґрунтовано адаптивні механізми вдосконалення логістичних і постачальницьких процесів підприємства в умовах воєнної нестабільності на засадах 3PL/4PL, спрямовані на підвищення прозорості формування логістичних витрат, оптимізацію транспортно-складських операцій та посилення координації потоків у ланцюгах постачання. Результати можуть бути використані підприємствами транспортно-логістичного сектору для підвищення логістичної стійкості й ефективності управління витратами у воєнних і післявоєнних умовах.

Ukrainian State University of Railway Transport

Faculty of Economics

Department of Management, Public Administration and HR Technologies

Higher Education Level: Master

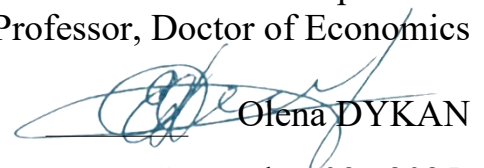
Educational Programme: Sustainable Logistics and Supply Chain Management

Specialty: 073 "Management"

APPROVED

Head of Department

Professor, Doctor of Economics



Olena DYKAN

September 09, 2025.

ASSIGNMENT FOR THE MASTER'S QUALIFICATION WORK Lidia DROZDOVA

1 Topic «Mechanisms for Managing Costs of Enterprise Logistics and Supply Processes»

supervisor Olena Dykan, Doctor of Economics, Professor

approved by the Order of the Faculty of Economics dated February 07, 2025 No. 58/25

2 The deadline for submission of completed work by a higher education applicant is December 12, 2025

3 Initial data Explanatory notes and production-economic reports of LLC “Daktyl” for 2020 - 2024, as well as regulatory acts, standards, methodological materials and scientific sources on logistics management and cost management.

4 Content of the calculation and explanatory note (list of issues to be developed)

Core Theories of Supply Chain Management and Logistics Integration. Structure and Typology of Logistics and Supply Chain Costs. Key Factors and Determinants of Supply Chain Performance. Analytical Approaches and Models for Optimising Logistics Costs. Methodological Framework and Research Design. General Characteristics and Strategic Positioning of LLC “Daktyl”. Analysis of Operational Performance and Service Portfolio. Efficiency of Resource Utilisation: Fixed Assets, Working Capital, and Human Resources. Integrated Analysis of Cost of Goods Sold, Logistics Expenditures, and the Enterprise’s Financial Performance. Analytical Justification for the Transformation of Logistics Cost Management under Wartime Conditions. Analytical Framework for Managing Logistics and Supply Chain Costs within 3PL/4PL Systems. Scenario-Based Adaptation of Logistics and Supply Processes at LLC “Daktyl” within a 3PL/4PL Framework. Assessment of the Strategic Stability of Logistics Costs of the Enterprise During Wartime.

5 List of graphic material

1 Theoretical and Methodological Foundations of Cost Management in Logistics and Supply Chains- six slides. 2 Empirical Analysis of Logistics Operations, Resource Utilisation, and Financial Resilience of LLC “Daktyl” in the Context of a Wartime Economy - five slides. 3 Analytical Framework and Adaptive Mechanisms for Managing Logistics and Supply Chain Costs under Wartime Conditions - eight slides.

6 Individual Section Consultants

Section	Surname, initials, title and academic degree Consultant	Signature, date	
		The task was issued by	task Took

7 Assignment Date September 09, 2025

CALENDAR PLAN

Stage name	Deadline for the implementation of the stages of work	Note
1 Theoretical and Methodological Foundations of Cost Management in Logistics and Supply Chains	10.10.2025	
2 Empirical Analysis of Logistics Operations, Resource Utilisation, and Financial Resilience of LLC “Daktyl” in the Context of a Wartime Economy	05.11.2025	
3 Analytical Framework and Adaptive Mechanisms for Managing Logistics and Supply Chain Costs under Wartime Conditions	08.12.2025	
Graphic part	10.12.2025	

Higher education applicant




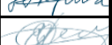
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