Ukrainian State University of Railway Transport

Department of Management, Public Administration and HR Technologies

STRATEGIC MANAGEMENT OF ENTERPRISE LOGISTICS UNDER CONTEMPORARY CHALLENGES

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

КРМ 073. 12111572 ПЗ

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

This qualification thesis includes a 15-slide presentation and an 81-page A4 explanatory report containing 13 tables and 77 referenced sources.

Keywords: STRATEGIC MANAGEMENT, LOGISTICS ACTIVITIES, DIGITAL TWIN, LOGISTICS, MARTIAL LAW.

The object of the study is the logistics activities of an enterprise under contemporary challenges.

The purpose of this thesis is the theoretical substantiation and development of a scientifically grounded model for improving the effectiveness of strategic management of enterprise logistics activities through the use of digital modelling of logistics processes as a decision-support instrument.

The qualification thesis is devoted to the study of the theoretical and methodological foundations of strategic management of enterprise logistics activities, in particular the transformation of logistics into a strategic flow management system and the formation of a resilience model for logistics systems under wartime risks and post-war recovery.

An analysis of the logistics activities of Siala LLC is conducted as an example of an integrated and adaptive logistics system, taking into account financial and operational performance indicators and the specific features of management under martial law.

A conceptual and algorithmic model of a digital twin of the logistics system of Siala LLC has been developed and substantiated, and its scenario-based testing and economic evaluation as a strategic management instrument have been carried out.

АНОТАЦІЯ

Дана кваліфікаційна робота включає в себе 15 слайдів презентації, 81 аркуш пояснювальної записки формату А4, що містять 13 таблиць, 77 використаних літературних джерел.

Ключові слова: СТРАТЕГІЧНЕ УПРАВЛІННЯ, ЛОГІСТИЧНА ДІЯЛЬНІСТЬ, ЦИФРОВИЙ ДВІЙНИК, ЛОГІСТИКА, ВОЄННИЙ СТАН.

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

Метою роботи є теоретичне обґрунтування та розроблення науково обґрунтованої моделі підвищення ефективності стратегічного управління логістичною діяльністю підприємства шляхом використання цифрового моделювання логістичних процесів як інструмента підтримки управлінських рішень.

Кваліфікаційна робота присвячена дослідженню теоретико-методологічних засад стратегічного управління логістичною діяльністю підприємства, зокрема трансформації логістики у стратегічну систему управління потоками та формуванню моделі стійкості логістичних систем в умовах воєнних ризиків і повоєнного відновлення.

Проведено аналіз логістичної діяльності ТОВ «Сіала» як прикладу інтегрованої та адаптивної логістичної системи, з урахуванням фінансово-операційних показників і особливостей управління в умовах воєнного стану.

Розроблено та обґрунтовано концептуальну й алгоритмічну модель цифрового двійника логістичної системи ТОВ «Сіала», здійснено її сценарне тестування та економічну оцінку як інструменту стратегічного управління.

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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
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_____ Olena DYKAN
September 09, 2025.

ASSIGNMENT
FOR THE MASTER'S QUALIFICATION WORK
Yana RYKOVA

1 Topic « Strategic Management of Enterprise Logistics under Contemporary Challenges»
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 reports on the production and economic activities of the enterprise for 2020 - 2024; enterprise reporting for 2020 - 2024; regulatory, legislative and scientific literature on strategic management and logistics activities.
4 Content of the calculation and explanatory note (list of issues to be developed)
The Transformation of Logistics as a Strategic Flow Management System. Structural and Functional Model of the Modern Enterprise Logistics Management System. The Resilience - Digitalization - Partnership Model as a Basis for Logistics Resilience Under Wartime Risks and Post-War Recovery. Siala LLC as a Model of Modern Logistics. The Integrated Logistics System of Siala LLC. Financial and operational performance of Siala LLC. Logistics Management Under Martial Law. Justification of the Design Science Research Paradigm in the Design of a Logistics Artefact. Algorithmic Support and Modelling Architecture of the Logistics Processes of Siala LLC. Testing of Strategic Scenarios and Verification of the Conceptual Model. Assessment of Economic Efficiency and Risks of Implementing Digital Twin Technology.
5 List of graphic material
1 Theoretical Foundations of Strategic Management of Enterprise Logistics Activities - four slides. 2 Siala LLC as a Case of Strategic and Resilient Logistics - four slides. 3

Formation Of A Digital Twin Of The Logistics System Of Siala LLC As A Tool Of Strategic Management - seven 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 Foundations of Strategic Management of Enterprise Logistics Activities	10.10.2025	
2 Siala LLC as a Case of Strategic and Resilient Logistics	05.11.2025	
3 Formation Of A Digital Twin Of The Logistics System Of Siala LLC As A Tool Of Strategic Management	08.12.2025	
Graphic part	10.12.2025	

Higher education applicant _____ Yana RYKOVA

Supervisor _____ Olena DYKAN

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