

Ukrainian State University of Railway Transport  
Department of Management, Public Administration and HR Technologies

**IMPROVING THE COMPETITIVENESS MANAGEMENT SYSTEM OF  
THE LOGISTICS HUB DP WORLD TIS "PIVDENNYI" THROUGH  
THE DIGITAL TRANSFORMATION OF LOGISTICS 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 of higher education)  
(the work was performed independently in  
accordance with academic integrity  
principles)  
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## ABSTRACT

This qualification work includes 88 pages of an explanatory note in A4 format, containing 2 figure, 14 tables, and 81 literary sources.

**Keywords:** COMPETITIVENESS, DIGITAL TRANSFORMATION, LOGISTICS HUB, LOGISTICS 4.0, MANAGEMENT SYSTEM, DP WORLD TIS "PIVDENNYI".

The object of the study is the processes of managing the competitiveness of a logistics hub.

The purpose of the study is to develop theoretical foundations and practical recommendations for improving the competitiveness management system of the DP World TIS "Pivdennyi" logistics hub based on the digital transformation of logistics processes.

The thesis examines the theoretical foundations of competitiveness management for enterprises in the logistics industry amidst digital transformation. A comprehensive competitiveness management mechanism is proposed, implemented at the strategic, tactical, and operational levels, considering the specifics of modern logistics systems within the Logistics 4.0 paradigm.

A comprehensive analysis of the organizational and economic activities of the DP World TIS "Pivdennyi" logistics hub was conducted, assessing its current competitive positions in the Black Sea region's port services market. The enterprise's digital maturity level was diagnosed using the Smart Ports Process Maturity Model (SPPMM), which allowed for the identification of strategic gaps compared to global leaders.

Based on the analysis, a comprehensive program and roadmap for the digital transformation of the enterprise were developed. The proposed measures are aimed at eliminating the identified gaps, strengthening the terminal's unique competitive advantages, and ensuring its long-term leadership in the context of post-war recovery and Ukraine's integration into global logistics chains.

## АНОТАЦІЯ

Дана кваліфікаційна робота включає в себе 88 аркушів пояснювальної записки формату А4, що включає 2 рисунки, 14 таблиць, 81 літературних джерел.

**Ключові слова:** КОНКУРЕНТОСПРОМОЖНІСТЬ, ЦИФРОВА ТРАНСФОРМАЦІЯ, ЛОГІСТИЧНИЙ ВУЗОЛ, LOGISTICS 4.0, СИСТЕМА УПРАВЛІННЯ, DP WORLD TIS "ПІВДЕННИЙ".

Об'єктом дослідження є процеси управління конкурентоспроможністю логістичного вузла.

Метою дослідження є розробка теоретичних зasad та практичних рекомендацій щодо вдосконалення системи управління конкурентоспроможністю логістичного вузла DP World TIS "Південний" на основі цифрової трансформації логістичних процесів.

У роботі досліджено теоретичні основи управління конкурентоспроможністю в умовах цифрової трансформації. Запропоновано комплексний механізм управління конкурентоспроможністю, що реалізується на стратегічному, тактичному та оперативному рівнях.

Проведено комплексний аналіз організаційно-економічної діяльності логістичного вузла DP World TIS "Південний", оцінено його поточні конкурентні позиції на ринку портових послуг Чорноморського регіону. Виконано діагностику рівня цифрової зрілості підприємства за моделлю Smart Ports Process Maturity Model (SPPMM), що дозволило виявити стратегічні розриви порівняно зі світовими лідерами.

На основі проведеного аналізу розроблено комплексну програму та дорожню карту цифрової трансформації підприємства.

# **Ukrainian State University of Railway Transport**

**Faculty of Economics**

**Department of Management, Public Administration and HR Technologies**

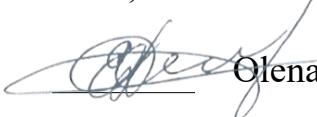
**Higher Education Level:** Master

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**APPROVED**

Head of Department  
Professor, Doctor of Economics



Olena DYKAN

September 09, 2025.

## **ASSIGNMENT FOR THE MASTER'S QUALIFICATION WORK**

Vadym KUCHMENKO

1 Topic «Improving the Competitiveness Management System of the Logistics Hub DP World TIS “Pivdennyi” Through the Digital Transformation of Logistics Processes»  
supervisor Olena Hulai, Candidate of Economic Sciences, Associate 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 17, 2025.

3 Initial data Laws, regulatory acts and methodological guidelines on competitiveness management, digital transformation and logistics development, Scientific publications by leading Ukrainian and foreign scholars on competitiveness

4 Contents of the settlement and explanatory note (list of issues to be developed) Theoretical and methodological foundations of competitiveness management in logistics hubs. The concept of enterprise competitiveness, key factors influencing performance in modern logistics systems, and the role of digital transformation in strengthening competitive advantages. International experience in port digitalization and approaches used by leading global terminals to improve technological efficiency.

The essence of a digital development strategy for a logistics enterprise. Risks associated with low digital maturity, methods for assessing technological readiness and indicators for evaluating digital performance. Characteristics and analysis of the activities of DP World TIS “Pivdennyi.” Organizational structure, logistics infrastructure, main operational indicators, digital tools currently in use and existing elements of technological modernization. Analysis of the impact of digital technologies on logistics operations.

## 5 List of graphic material

1 Theoretical foundations of competitiveness management and digital transformation – four slides (concepts, models, technologies, analytical schemes) 2 Characteristics and comprehensive analysis of DP World TIS “Pivdennyi” – two slides (infrastructure, financial performance, market role). 3 Mechanisms, strategies and innovations for improving competitiveness through digital transformation – two slides (proposed solutions, transformation roadmap, digital tools)

## 6 Consultants of individual sections

Section	Consultant's last name, initials, position and academic degree	Signature, date	
		the task was given	task accepted

## 7 Assignment Date September 09, 2025

## CALENDAR PLAN

Stage name	Deadline stages of work	Note
1 Theoretical foundations and global experience of green logistics. Formation of the conceptual framework of the study.	10.11.2025	
2 Characteristics and comprehensive analysis of logistics activities and competitiveness of DP World TIS “Pivdennyi”	15.11.2025	
3 Development of mechanisms, strategies and innovations for enhancing competitiveness based on digital transformation	01.12.2025	
4 Graphic part	05.12.2025	

Higher education student

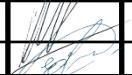
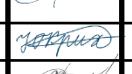
Vadym KUCHMENKO

Head

Olena HULAI

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Chap	Page	Document No.	Signatur	Date			
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