



Batumi Navigation Teaching University Publications

ბათუმის ნავიგაციის სასწავლო უნივერსიტეტის გამოცემები

BOOK OF PROCEEDINGS

VI International Scientific Conference ISTSML 2022

ONLINE/VIRTUAL

EDITOR

Professor Dr. Badri GECHBAIA

Copyright © Batumi Navigation Teaching University

All Rights Reserved. No part of this book may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the publisher.

The authors are responsible for the content and language of their papers.

VI International Conference on Sustainable Transport System and Maritime Logistics.

Published under the terms of the Creative Commons

CC BY-NC 4.0 License.

© Batumi Navigation Teaching University, 2022.

© Collective authors, 2022

© BNTU, 2022. – 188 pages.

ISBN 978-9941-492-80-8

CONTENTS

პარმენ ხვედელიძე	
მილოცვა	5
ვანტანგ თავბერიძე	6
მილოცვა - მეზღვაურთა საერთაშორისო დღე	
ვანტანგ თავბერიძე	7
საქართველოში საზღვაო სფეროში განათლებისა და ქართული საზღვაო შრომის ბაზრის პრობლემები	
პარმენ ხვედელიძე	12
საზღვაო საკონტინენტო გადაზიდვები და ESG ფაქტორები: საკონტინენტო გადაზიდვების ინდუსტრიის მდგრადობა COVID-19 პანდემიის კრიზისში	
Olga Iermakova, Viktor Koval, Victoriia Mykytenko	15
CHALLENGES OF AQUACULTURE DEVELOPMENT IN THE UKRAINIAN BLACK SEA REGION	
Victor Zamlynskyi, A.M.A.S. Al Ali, Balla MoussaCamara	18
CORPORATE CULTURE OF TEAMWORK BASED ON ESG	
Oksana Bondar-Pidhurska	23
BUSINESS DEVELOPMENT IN SITUATIONS OF WAR AND POST-WAR CONSTRUCTION OF UKRAINE: MAIN DIRECTIONS, PROBLEMS, SUPPORT OF COMPETITIVENESS	
Oleksiy Mints, Hanna Doroshkevich	27
THE MAIN APPROACHES TO MANAGING THE INTERNATIONAL BUSINESS ACTIVITY OF ENTERPRISES IN THE CONTEXT OF GLOBAL CATAclysms	
Martin Aleksandrov	29
STRATEGY FOR BUILDING AND ADAPTING A JOURNAL MODEL THROUGH OJS	
David Katamadze, Guliko Katamadze	32
PROSPECTS FOR THE FORMATION OF THE TRANSCAUCASIAN TRANSPORT-LOGISTICS HUB OF GEORGIA	
Eka Avsajanishvili	34
CHALLENGES OF CONFLICT MANAGEMENT DURING THE COVID PANDEMIC	
Merab Vanishvili	37
TOPICAL ISSUES OF METHODOLOGICAL SUPPORT OF SUSTAINABLE FINANCING IN GEORGIA	
Merab Vanishvili	43
VALUE ADDED TAX IN THE TAX SYSTEM OF GEORGIA: ANALYSIS AND EVALUATION	
Amiran Tsilosani	47
POTENTIAL AND CAPABILITIES OF GEORGIA AS A TRANSIT REGION IN CONTAINER SHIPPING	
Maria del Carmen Otero Neira, Mariam Katamadze	50
THE IMPACT OF BUSINESS COMMUNICATION ON RAISING THE IMAGE OF GEORGIAN COMPANIES	
Olha Popelo	53
COMPETITIVE HIGHER EDUCATION FOR SUSTAINABLE DEVELOPMENT	
Nataliia Tkalenko, Olena Mykhailovska	56
SYSTEMATIZATION OF DIRECTIONS FOR IMPROVING THE COORDINATION OF THE PROCESS OF PUBLIC-PARTNERSHIP INTERACTION	
Marin Marinov, Milen Dinkov	60
LOGISTICS SERVICE PROVIDERS IN BULGARIA - TRENDS AND PROSPECTS	
Hanna Tiutiunnyk	62
POST-WAR RESTORATION AND DEVELOPMENT OF MARICULTURE IN UKRAINE IN THE CONTEXT OF INSTITUTIONAL ENSURING OF SUSTAINABLE MARITIME TRANSPORT SYSTEM	
Tetiana Zabashanska	66
CONCEPTUAL FUNDAMENTALS OF DIGITAL ENTERPRISE DIGITAL MARKETING DEVELOPMENT TOOLS	

Inesa Mikhno, Liliya Filipishyna, Oleksandr Tkach	69
DIGITIZATION OF THE ECONOMY AND ENVIRONMENTAL FRIENDLINESS IN AN EXPERIMENTAL SETTLEMENT IN THE ADAPTATION OF UKRAINIAN CITIES	
Ani Edzgeradze	73
SUSTAINABLE DEVELOPMENT AND GREEN ARCHITECTURE AS A NECESSITY FOR TODAY	
Iryna M. Zaporozhets, Antonina B. Trushliakova	76
DEVELOPMENT OF THE LOGISTICS SYSTEM OF INLAND WATER TRANSPORT OF UKRAINE	
Khatuna Shalamberidze, Sopo Mikabadze, Irine kopaliani	80
PECULIARITIES OF HUMAN RESOURCE MANAGEMENT IN THE BANK SYSTEM	
Ganna Iefimova, Andriy Labartkava, Oleksiy Pashchenko	87
PROBLEMS AND PROSPECTS OF FINTECH DEVELOPMENT IN UKRAINE	
Nino Abesadze, Natalia Robitashvili, Otar Abesadze Rusudan Kinkladze	90
FOREIGN TRADE STATISTICS AS THE MAIN CATALYST FOR IMPROVING MARITIME LOGISTICS IN GEORGIA	
ლელია ცეცხლაძე, ნატო ჯაბნძე, ბადრი გეჩბაია	94
ლოგისტიკური სისტემის კონკურენტუნარიანობის რეგიონული ასპექტები	
Natalia Tchkonია	97
WOMEN IN MARITIME	
Givi Bakradze	99
CURRENT ISSUES OF FINANCIAL ACCOUNTING AND TAX POLICY IN GEORGIA	
Maksym Zabashchanskyi, Andrii Rogovyi, Maksym Dubyna	101
PREREQUISITES FOR ACTIVATION OF SOCIAL TOURISM IN MODERN CONDITIONS OF SOCIETY'S ACTIVITY IN UKRAINE	
Nataliia Gagina, Olena Los, Svitlana Lytvyn	104
THE IMPACT OF FOREIGN LANGUAGES ON SOCIAL AND ECONOMIC DEVELOPMENT OF UKRAINE	
Ramin Tsinaridze, Levan Tsetskhladze, Saba kakhidze	108
CUSTOMS REVENUES AND EXPORT-IMPORT REGULATION	
Nataliia Vdovenko, Roman Dmytryshyn	110
METHODOLOGICAL APPROACHES TO OPTIMIZATION OF RISKS IN AQUACULTURE AND FIGHT AGAINST UNREGULATED AND UNREPORTABLE FISHERIES	
ედუარდ მიქელაძე	115
საკუთარი ღროის მართვა: ღროის მართვის მიზნები და მიღწევის გზები	
გიორგი ქათამაძე	117
ბიზნესი, პანდემია და ფორს-მაჟორის კრიზისად ტრანსფორმაცია	
Irina Kychko, Lyudmyla Remnova, Alla Kholodnytska	120
CORPORATE CULTURE AND LEADERSHIP DEVELOPMENT IN CHANGING WORLD	
Nana Katsitadze, Elisabed Baliashvili, Lela Kochlamazashvili, Natela Tushishvili	124
PROMOTING THE DEVELOPMENT OF TOURISM CLUSTERS FOR INCLUSIVE DEVELOPMENT OF MOUNTAINOUS REGIONS	
Kristina Avaliani, Irma Dikhaminjia	128
PERCEPTION OF INTERNATIONAL BUSINESS COMMUNICATIONS IN THE GEORGIAN BUSINESS SECTOR	
ირინა ვამაყმაძე, ირინე თავაძე	132
ეკონომიკური კრიზისების გავლენა საქართველოს საფინანსო სექტორზე	
Iryna Sadchykova	134
FEATURES OF THE ACTIVITY OF CREDIT INTERMEDIARIES IN THE FINANCIAL SERVICES MARKET OF UKRAINE	
Olena Shyshkina	138
IMPACT OF FINANCIAL RISKS OF SUBJECTS OF THE REAL SECTOR OF ECONOMY OF UKRAINE ON THE MARINE TRANSPORT LOGISTICS IN THE CONDITIONS OF MILITARY ACTIONS	

Nataliia Kholiavko, Artur Zhavoronok	142
IMPACT OF HIGHER EDUCATION ON SUSTAINABILITY	
კობა ბასილაია, ლაშა-გიორგი სიმონიშვილი-ჯაყელი	145
ქონების დაზღვევის ბაზრის განვითარების პერსპექტივები საქართველოში	
ნანული მასარაძე	148
მდგრადი მარკეტინგის განვითარების ტენდენციები და რეალობა ქართულ ბიზნესში	
Valentyn Vlasenko	150
DIRECTIONS OF IMPLEMENTATION OF THE RISK MANAGEMENT SYSTEM AT THE ENTERPRISE IN THE MARKET CONDITIONS	
Tamar Diasamidze	155
THE CRUCIAL ROLE OF NONVERBAL MEANS IN THE PROCESS OF BUSINESS COMMUNICATION	
Maryna Khara, Iryna Nikolaienko	157
OPTIMIZATION OF THE WAGON DEPOT INVENTORY MANAGEMENT SYSTEM	
Inna Chaika, Olena Kononenko	160
ISSUES OF REFORMING HIGHER EDUCATION IN UKRAINE	
ირმა ჩხაიძე, ლელა დევაძე	163
პროექტების მენეჯმენტში არსებული პრობლემები და მათი გადაჭრის ~ შესაძლებლობები	
ხატია ლომიძე, ნინო ლიპარტელიანი	165
საერთაშორისო ფინანსური კორპორაცია IFC-ის საქმიანობა საქართველოში	
ანა ჩაგელიშვილი	166
ადამიანური რესურსების განვითარების გამოწვევები ქართული ეკონომიკის პირობებში	
ნანული ოქრუაშვილი, ნინო ფარესაშვილი	169
საქართველოს შრომის ბაზრის ინსტიტუციონალურ რეგულირება თანამედროვე გამოწვევების პირობებში: პრობლემები და მათი აღმოფხვრის გზები	
თენგიზ აფხაზავა	173
COVID-19 პანდემიის გავლენა მსოფლიო სატრანსპორტო სექტორზე და მისი ეკონომიკური შედეგები მსოფლიოსა და საქართველოსათვის	
ლელა კოჭლამაშაშვილი, ნანა კაციტაძე	174
საავტომობილო გზების და ინფრასტრუქტურის განვითარება საქართველოში	
თამარ ხარიტონაშვილი	176
საქართველოს საბანკო ბიზნესის სოციალური პასუხისმგებლობის გააქტიურების ძირითადი მიმართულებები	
ნინო დობტურიშვილი	180
კახეთის რეგიონის დემოგრაფიული პრობლემები	
Ketevan Goletiani, Zurab Mushkudiani	182
DIFFICULTIES OF TEAMWORK BASED ON EXAMPLES OF GEORGIAN COMPANIES	
Lyudmyla Shymanovska-Dyanich, Vitalyna Shymanovska	183
THEORIES OF CREATIVITY: CURRENT REALITIES AND TRENDS	
Dursun Tsintsadze	186
MODERN NAVIGATION	

OPTIMIZATION OF THE WAGON DEPOT INVENTORY MANAGEMENT SYSTEM

Maryna Khara

*Candidate of Technical Sciences, Associate Professor,
SHEI «Pryazovskyi State Technical University», Ukraine, Mariupol,
haramarina4691@gmail.com*

Iryna Nikolaienko

*Candidate of Technical Sciences, Associate Professor,
SHEI «Pryazovskyi State Technical University», Ukraine, Mariupol,
iryna.vnikolaienko@gmail.com*

Optimization of the wagon depot inventory management system of a metallurgical enterprise in modern economic conditions has carried out by promptly changing the size of the insurance stock. To solve one of the tasks of the inventory management system, the calculation of the average size of the insurance stock of wagon parts and components for the short- and medium-term periods has performed. The calculation has performed in several stages and presented as an algorithm. The proposed approach has made it possible to determine the total value of the deficit of wagon component assemblies and parts for a wagon depot.

Due to the uncertainty of the input characteristics of supply and demand under various economic conditions, the system for ensuring the operational readiness of wagons of industrial transport may enter a "deficit state", i.e. the level of stocks takes negative values. As a result, wagon depot repair and maintenance areas have to wait for some time for the supply of spare parts, which means that the quality of service decreases. On the other hand, availability of excessive stocks of wagon parts and components in the depot warehouses of an industrial enterprise requires additional expenses for their maintenance. Therefore, there is a need for justification of rational and, if possible, optimal size of the stock of wagon components and parts.

There are a number of methods to optimize the level of inventories at different enterprises. Optimization of the stock management system of a wagon depot of a metallurgical enterprise is carried out by promptly changing the insurance stock size [1. Pp. 92].

The insurance stock size is calculated, as a rule, for a medium-term period with subsequent regular adjustments [2. Pp. 392]. However, too frequent changes in the parameters of the inventory management system complicate the rhythmic operation of the logistics chain for wagon parts and components and make it "unstable".

One of the tasks of planning the inventory management system is to calculate the average size of the insurance stock of wagon components and parts for the short- and medium-term periods. The calculation is carried out in several stages.

Stage 1. Calculation of average values of intensity of demand for wagon component parts.

Stage 2. Forecasting the component parts demand volume at certain business situations of industrial enterprise. Identification of the main development trend by least squares method.

Stage 3. Planning the volume of supply and development of wagon parts, scheduling their receipt and expenditure.

Stage 4. Measuring the inventory management system reliability, which is to calculate probabilities of component parts shortage at deficit.

The final stage involves the calculation of the impact of various independent conditions on inventories. When implementing the fourth stage, it is necessary to consider the influence of three main factors on the appearance of shortage in the chain of wagon component parts supply: heterogeneity of requests for components and parts in the system of wagon operational readiness supply; reliability of the supplier, which is the ability to supply the required batch of wagon component parts on the first demand; reliability of the supply system within the enterprise, which is the delivery of a batch of wagon parts and components within the stipulated time or by stipulation.

The calculation procedure is presented as an algorithm in figure 1.

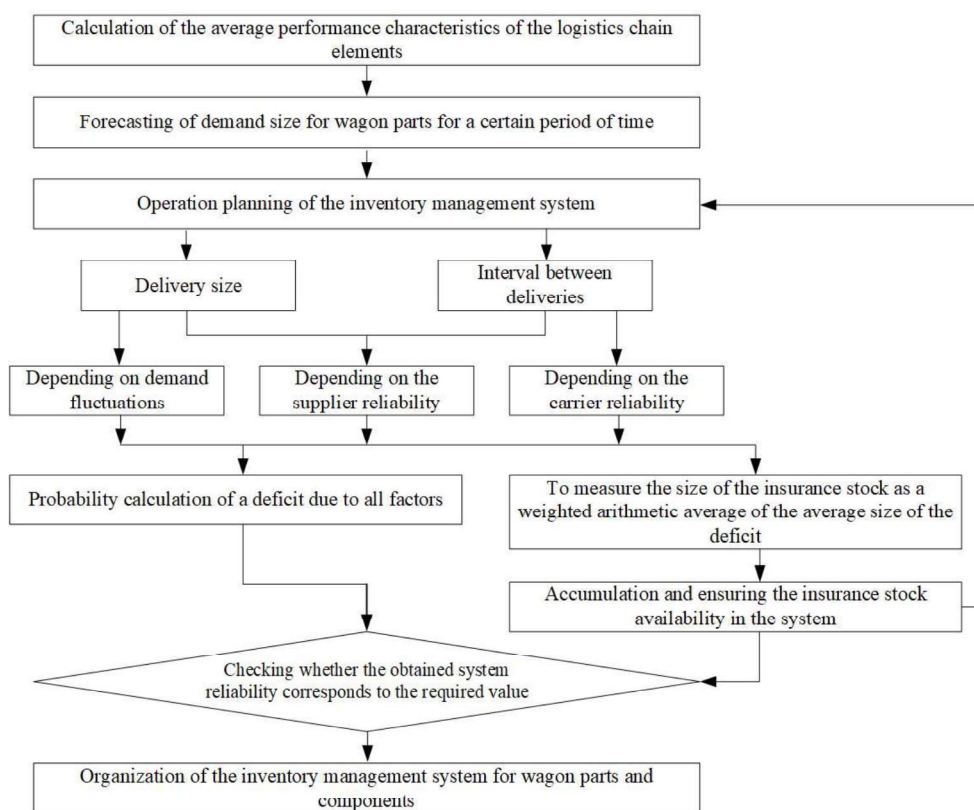


Fig. 1. The scheme of inventory management system reliability for wagon components and parts

Practical implementation of the proposed mechanism made it possible to determine the total value of deficit of components and parts for the wagon depot of one of the metallurgical enterprises of Ukraine, which amounted to 10 % of the total number of necessary

reserve for wagons. At the same time, 5 % of this number falls on the main plant areas - sinter and steelmaking, which is caused by the most difficult operating conditions of wagons. Thus, the developed model of applications for repair resources and works makes it possible to ensure the timeliness and completeness of repair work.

Keywords: *inventory management system, insurance stock size, logistics chain, wagon depot, wagon components*

REFERENCES

1. Хара, М. В. Управління ланцюгами поставок та мережами / М. В. Хара, І. В. Ніколаєнко // Інжиніринг криз та ризиків транспортних послуг : колективна монографія / В. М. Самсонкін [та ін.]. – Київ, 2021. – Розділ 3. – С. 74–100. [Khara, M.V. Supply chain management and networks / I. V. Nikolaienko, M. V. Khara // Risk and crisis engineering of transport services: collective monography / V. M. Samsonkin at al. – Kyiv, 2021. – Path 3. – Pp. 74-100.].

2. Крикавський, Є. Логістика та управління ланцюгами поставок : навч. посібник / Є. Крикавський, О. Похильченко, М. Фертч. – Львів: Видавництво Львівської політехніки, 2017. – 844 с. [Krikavskiy, E. Logistics and supply chain management : tutorial / E. Krikavskiy, O. Pokhilchenko, M. Fertsch.– Lviv: Publishing house of Lviv Polytechnic, 2017. – 844 p.]

Sustainable Transport System and Maritime Logistics ISTSML 2022

Proceedings of the VI International Scientific Conference

Batumi, Georgia

June 24, 2022

Copying of content is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a CC BY-NC 4.0 License.

Batumi Navigation Teaching University № 38 Tamar Mefe ave., Makhinjauri;
Batumi; Georgia

E-mail: b.gechbaia@bntu.edu.ge, website: www.bntu.edu.ge