
ABSTRACTS

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METRICS IN THE PREPAREDNESS PROCESS

(pages 145-154)

Vesa-Jukka Vornanen

University of Vaasa, P.O.Box 205, FI-48101, Finland, City of Kotka,
vesa-jukka.vornanen@kotka.fi (corresponding author)

Josu Takala

University of Vaasa, P.O. Box 700, FI-65101 Vaasa, Finland, josu.takala@uwasa.fi

Keywords: preparedness process, PDSA, content analysis, discourse analysis, BCFI analysis

Abstract: The phenomenon under study relates to the preparedness process. We need metrics to achieve multi-strategic goals. Situational factors and the direction of development of operational priorities are measurable factors. Public officers need measure these, that political decision-makers leads in the right direction. The research problem of a new servant in office is how to interpret the measured results to make a decision proposal. The research method was an action research. The problem solving follows the logical steps of the Deming Cycle: Plan the exercise, Do the notes, Study the content, Act customer-oriented. Multi-method approach promotes value-generating processes in the region's hybrid organization. The evaluation of results is based on stakeholder feedback, a participate-decision by the City of Kotka's Urban Board and a decision on funding by the Kymenlaakso Regional Council. In practice, content analysis of situational factors creates certainty of interpretation about the direction of development of operational priorities. This is important for BCFI analysis especially in turbulent situations. Implemented in the context of the readiness exercise, this was found to be exceptionally meritorious.

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DESIGN LOGICAL LINGUISTIC MODELS TO CALCULATE NECESSITY IN TRUCKS DURING AGRICULTURAL CARGOES LOGISTICS USING FUZZY LOGIC

(pages 155-166)

Ievgen Medvediev

Volodymyr Dahl East Ukrainian National University, Department of Logistics Management and Traffic Safety in
Transport, 59-a, Central Ave., Sievierodonetsk, 93400, Ukraine, medvedev.ep@gmail.com

Dmitriy Muzylyov

Kharkiv Petro Vasylenko National Technical University of Agriculture, Department of Transport Technology and
Logistics, 44, Alchevskyyh St., Kharkiv, 61002, Ukraine, murza_1@ukr.net

Natalya Shramenko

Kharkiv Petro Vasylenko National Technical University of Agriculture, Department of Transport Technology and
Logistics, 44, Alchevskyyh St., Kharkiv, 61002, Ukraine, and too

Ukrainian State University of Railway Transport, Department of Operational Work Management,
7, Feierbakh Square, Kharkiv, 61000, Ukraine, nshramenko@gmail.com

Pavlo Nosko

National Aviation University, Mechanical Engineering Department, 1, Lubomir Husar Ave., Kyiv, 02000, Ukraine,
nosko_p@ukr.net

Peter Eliseyev

Volodymyr Dahl East Ukrainian National University, Department of Machine Science and Industrial Enterprises
Equipment, 59-a, Central Ave., Sievierodonetsk, 93400, Ukraine, peter_eliseyev@ukr.net

Vitalii Ivanov

Sumy State University, Department of Manufacturing Engineering, Machines and Tools,
2, Rymkogo-Korsakova St., Sumy, 40007, Ukraine, ivanov@tmvi.sumdu.edu.ua (corresponding author)

Keywords: fuzzy logic, transportation, terms, harvesting and transport complex, fuzzification, membership function

Abstract: The study is aimed to develop the logic-linguistic models to design a number of rules for the correct calculation of the vehicles needed, taking into account the technical, technological, and weather and climate conditions of the harvesting and transport complex. The article has shown that the construction of the design of logic-linguistic models was not performed earlier to solve the problem of the agro-industrial production transportation support, considering the opportunity of forecasting size of influences of the weather and climatic factors on improving the productivity of the harvesting and transport complex elements. It is determined that the experience of applying the fuzzy logic theory in many practice situations confirms the universality of the mathematical apparatus. This toolkit provides better results than classical approaches (set theory, probability theory). This aspect indicates the expediency of the chosen mathematical apparatus for solving the tasks. The article using fuzzy logic explores the relationship and interdependence of technical, technological factors and weather and climate conditions for modeling transport support in harvesting and transport complex. Fuzzification of the parameters is carried out, based on the compiled equations using trapezoidal and triangular membership functions. The set of rules necessary for the creation of logical-linguistic models (LLM) for each factor has been arranged. LLMs were developed for dependent parameters, which will allow further modeling of the transport support of the harvesting and transport complex in the Fuzzy Logic Toolbox application of the MATLAB package.

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THE PRACTICES OF LOGISTICS SERVICE PROVIDERS IN MOROCCO: THE PARADOX OF COLLABORATION/COORDINATION (pages 167-174)

Nohade Ben kaddour

Abdelmalek Essaadi University, Faculty of Science, Avenue of Sebta, Mhannech II 93002, Tetouan, Morocco,
benkaddour.nohade@gmail.com (corresponding author)

Mohammed Rajaa

Abdelmalek Essaadi University, Faculty of Law Economics and Social Sciences, Avenue Hassan II, Martil 93150,
Tetouan, Morocco, mohammedrajaa@yahoo.fr

Abdellatif Medouri

Abdelmalek Essaadi University, National School of Applied Sciences, Avenue of Palestine, Mhannech I 93002,
Tetouan, Morocco, amedouri@gmail.com

Keywords: outsourcing, performance, logistics service provider, logistics practice, supply chain management

Abstract: This article examines the practices of logistics service providers (LSP) and the most outsourced services in Morocco through an empirical study based on a questionnaire answered by various foreign and Moroccan logistics service providers as well as dealing with the impact of outsourcing on the performance of industrial companies with increasing competitive pressures and globalization. These companies have developed the strategy of logistics outsourcing which is a process that companies are increasingly resorting to. It is for an industrial or commercial company means "entrusting all or part of a logistics chain, previously carried out internally, to an external service provider".

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DISTRIBUTION METHODOLOGY IN SMALL BREWERY COMPANY TO OBTAIN PROFITS IN SHORT TIME (pages 175-186)

Irma-Delia Rojas-Cuevas

Instituto Tecnológico de Puebla, Av. Tecnológico No. 420, Colonia Maravillas, 72220, Puebla, Mexico,
rojascid@yahoo.com.mx

Diana Sánchez-Partida

Universidad Popular Autónoma del Estado de Puebla A.C., 17 Sur 901, Barrio de Santiago, 72410, Puebla, Mexico,
diana.sanchez@upaep.mx (corresponding author)

José-Luis Martínez-Flores

Universidad Popular Autónoma del Estado de Puebla A.C., 17 Sur 901, Barrio de Santiago, 72410, Puebla, Mexico,
joseluis.martinez01@upaep.mx

Santiago-Omar Caballero-Morales

Universidad Popular Autónoma del Estado de Puebla A.C., 17 Sur 901, Barrio de Santiago, 72410, Puebla, Mexico,
santiagoomar.caballero@upaep.mx

Keywords: traveling salesman problem, Knapsack problem, Greedy algorithm, brewery industry, profits in short-term
Abstract: This paper presents a methodology oriented to obtain profits in the short-term and is applied to the brewery industry for distributing goods. It is composed of two models of Operations Research (OR), the Knapsack Problem (KP), and the Traveling Salesman Problem (TSP). Also, the Greedy Algorithm is used. In the first step, the KP modified model is used in the choice of the product to give priority to products, which maximize the profit of the Company, making the load assignments for each route respecting the constraints of volume and weight of vehicle capacity. The volume of the vehicle considers full boxes, and its weight and profit are calculated in bottles. As a result, the product loaded is prioritized, where the highest profit product is delivered first and then the low-profit product. Subsequently, the TSP model was used to select the best route for the distribution of the products. Finally, with the Greedy Algorithm and results obtained previously, the customers to be visited are determined.

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LOGISTICS, ECO-INNOVATIONS AND PANDEMIC

(pages 187-193)

Erika Loučanová

Technical University in Zvolen, T.G. Masaryka 24, Zvolen 96001, Slovak Republic, EU,
loucanova@tuzvo.sk (corresponding author)

Miriam Olšiaková

Technical University in Zvolen, T.G. Masaryka 24, Zvolen 96001, Slovak Republic, EU, olsiakova@tuzvo.sk

Keywords: innovation, eco-innovation, GDP, Slovakia, pandemic

Abstract: The paper presents results of the evaluation of the development of eco-innovations in Slovakia in relation to GDP and the current situation in terms of logistics and COVID-19 pandemic. The issue is based on the analyses of overall eco-innovation index of the Slovak Republic in relation to GDP growth of Slovakia. The calculation regards the current state of logistics during the pandemic where GDP belongs to the main elements associated with effective eco-innovation supporting. The correlation and regression analysis are used to examine the degree of interdependence between economic growth and total eco-innovation index. The results from applied regression and correlation analysis of total eco-innovation index and GDP point to the fact that GDP belongs to key factors enabling effective eco-innovation supporting.

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ANALYSIS OF PRODUCT CONFIGURATORS USED IN THE MASS CUSTOMIZATION PRODUCTION

(pages 195-200)

Dragan Peraković

University of Zagreb, Faculty of Transport and Traffic Science, Department of Information and Communication Traffic,
Vukelićeva 4, Croatia, dperakovic@fpz.hr

Annamária Behúnová

Technical University of Košice, Faculty of Manufacturing Technologies with the seat in Prešov, Department of Industrial Engineering and Informatics, Bayerova 1, Prešov, Slovak Republic, annamaria.behunova@tuke.sk

Lucia Knapčíková

Technical University of Košice, Faculty of Manufacturing Technologies with the seat in Prešov, Department of Industrial Engineering and Informatics, Bayerova 1, Prešov, Slovak Republic, lucia.knapcikova@tuke.sk
(corresponding author)

Keywords: product, product configurator, automotive industry, mass customization

Abstract: Nowadays, with the very rapid development of Internet possibilities and a large number of product variations on the market, the interest of shoppers is growing for a product that would meet all the required criteria and parameters. In the past, retailers of various types of products used product catalogues and brochures in printed form to present their portfolios. At present, the Internet is the most widely used primary information medium. Works in the way of product configurators are performing via the Internet. These are tailored to the requirements of customers to meet their needs and wishes. Automobile sellers realize that through product configurators, they can engage a potential customer more effectively and customize the resulting product with their production capabilities. Detailed and detailed product configurators are a step towards the keen interest of shoppers and consumers. An overview of product configurators in different types of use and with other manufacturers is not only necessary for customers, but also manufacturers. For customers, the analysis needs to be able to choose a better configuration offer; for manufacturers, the study is necessary for reasons of competitiveness. This article aims to present an analysis of the use of product configurators of automobiles manufactures operating in the Slovak Republic.

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INVENTORY VALUATION METHODS AND THEIR IMPACT ON THE COMPANY'S PROFIT GENERATION

(pages 201-207)

Katarína Teplická

Technical University Košice, FBERG, Letná 9, 042 01 Košice, Slovakia, EÚ,
katarina.teplicka@tuke.sk (corresponding author)

Andrea Seňová

Technical University Košice, FBERG, Letná 9, 042 01 Košice, Slovakia, EÚ,
andrea.senova@tuke.sk

Keywords: inventories, assets, profit, valuation methods, efficiency

Abstract: Inventories are the assets of a company and creates her value. In this paper, we will deal with the most commonly used methods of inventory valuation (FIFO, LIFO, AC) and we will point out their impact on the company's profit generation. Confirmed hypotheses presents state that Slovak production companies use the FIFO method for valuing inventories and they have the most common type of inventories: finished products. Based on the results of inventory valuation using FIFO, LIFO, AC methods, we can state that the best results are shown by the FIFO inventory valuation method, because it realistically shows the price of inventories, which inventories are valued when consumed for consumption and corresponds to the price of inventories when acquiring € 8175. In the area of inventory value, it would be appropriate to introduce a simulation tool in the inventory management in companies, which would model the results of inventory valuation by individual methods.

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SELECTED LOGISTICS PROCESSES IN THE FLOW OF PERISHABLE PRODUCTS

(pages 209-215)

Maciej Koszorek

University of Zielona Góra, Institute of Management and Quality Sciences, Department of Logistics and Information Systems, ul. Podgórna 50, 65-246 Zielona Góra, Poland, koszorek.maciej@gmail.com

Katarzyna Huk

University of Zielona Góra, Institute of Management and Quality Sciences, Department of Logistics and Information Systems, ul. Podgórna 50, 65-246 Zielona Góra, Poland, k.huk@wez.uz.zgora.pl (corresponding author)

Keywords: logistics, processes of logistics, perishable products

Abstract: Logistics processes and supply chains are widely viewed. The dependencies and conditions of their functioning depend primarily on the products that are in the circulation of these activities. Product flows in supply chains can be grouped according to certain types of products and their specificity of transport and storage. It will also determine the differences in the processes that will be used and their specificity. The article deals with three types of products: milk, fruit and human blood. Contrary to appearances, these products are very similar to each other, and the specificity of logistics activities is the same for this group. This is a group that has been called perishable products. Their specificity lies in the need to quickly deliver them to the final consumer so that they do not lose their properties. Most of this is possible thanks to the use of cold stores and efficient supply chains. The article compares the logistic processes used in the movement of human blood along supply chains. The aim of the article is therefore to analyse and compare the logistics processes used in the supply chains of blood and perishable products. The article is literary and empirical in nature and is based on a literature analysis, case study, participant observation and reports. The study presents the supply chain for perishable products, indicates the specificity of individual logistics processes and presents common features for this group of products. The Regional Centre for Blood Donation and Blood Treatment (RCKiK in Poland) in Zielona Góra was used as a case study. It is the organization that primarily manages the blood flow from donors to hospitals and other organizations right down to the ultimate consumer-patient.
