
ABSTRACTS

*doi:10.22306/al.v9i1.260**Received: 27 Sep. 2021; Revised: 02 Nov. 2021; Accepted: 18 Jan. 2022***EXPLORING THE RELATIONSHIPS BETWEEN DEMAND ATTITUDES AND THE SUPPLY AMOUNT IN CONSUMER-DRIVEN SUPPLY CHAIN FOR FMCG**

(pages 1-12)

Andrii Galkin

O. M. Beketov National University of Urban Economy in Kharkiv, Department of Transport Systems and Logistics, Bazhanova str. 17, 61001 Kharkiv, Ukraine, andriy.galkin@kname.edu.ua (corresponding author)

Iryna Yemchenko

Lviv University of Trade and Economics, Department of Commodity Science, Customs Affairs and Quality Management, Tugan-Baranovsky str. 10, 79005, Lviv, Ukraine, irina_vladi@ukr.net

Svitlana Lysa

Kyiv National Linguistic University, Department Management and Marketing, Velyka Vasytkivska str. 73, 03680, Kyiv, Ukraine, p-svitlana@ukr.net

Mykhailo Tarasiuk

Kyiv National Linguistik University, Department Management and Marketing, Velyka Vasytkivska str. 73, 03680, Kyiv, Ukraine, mihailotarasiuk@gmail.com

Yulija Chortok

Sumy State University, Sumy, Ukraine, Department of Economics, Entrepreneurship and Business Administration, ul. Rymyskiy-Korsakova 2, 40007, Sumy, Ukraine, y.chortok@econ.sumdu.edu.ua

Yuliia Khvesyk

Taras Shevchenko National University of Kyiv, Department of Economic and Social Geography, Glushkova ave. 2, 01033 Kyiv, Ukraine, invest2606@gmail.com

Keywords: demand, end-consumers, urban logistics, patterns, FMCG.

Abstract: The development of the retail market in Ukraine and in the world requires the improvement of methods and models of effective interaction of supply and demand in the supply chain for the purchase of goods of daily demand. The article presents an integrated method for demand driven supply chain management at the distribution stage for FMCG (Fast moving consumer goods). The influence of end-consumers and demand on the functioning of the logistics system has been investigated. The approach is based on systems analysis, which shows the interdependence of the parameters of the logistics system and the consumption system. The approach takes into account the parameters of consumers and the logistics system and is an extension of knowledge on the use of consumer-oriented approach in the logistics system (demand-driven supply chain). The obtained results can be used in planning and organizing a modern demand driven supply chain.

*doi:10.22306/al.v9i1.261**Received: 28 Sep. 2021; Revised: 11 Nov. 2021; Accepted: 05 Jan. 2022***SUPPLY CHAIN MANAGEMENT PRACTICES AS A MEDIATOR VARIABLE FOR THE IMPACT OF THE PRODUCT DEVELOPMENT STAGES ON OPERATIONS MANAGEMENT DECISIONS**

(pages 13-21)

Abdullah Abbas AL-khrabsheh

AL Balqa Applied University, P.O.Box 19117, Salt, Jordan, Abdbbs@gmail.com (corresponding author)

Sakher A. I. Al-Bazaiah

AL Balqa Applied University, P.O.Box 19117, Salt, Jordan, bazaiah1@bau.edu.jo

Abdelruhman Abbas AL-khrabsheh

P.O. Box 11910, Amman, Jordan, Abd.leth@yahoo.com

Marwan Muhammad Al-Nsour

AL Balqa Applied University, P.O.Box 19117, Salt, Jordan, Marwan.alsour@bau.edu.jo

Keywords: supply chain management, product development stage, operation management.

Abstract: In this study, the researchers have attempted to determine the common Supply Chain Management (SCM) activities that were used as a mediator variable and influenced the effect of the product development stages on the implementation of operation management decisions in the companies belong to the Al-Manaseer Group in Jordan. For this purpose, they used a quantitative method, wherein they distributed questionnaires to the employees and management of the Al-Manaseer Company groups (such as the Director, Department Director, Head of the Section, Workers' Monitor). This helped them understand the relationship between the product development stage and the operational management decisions. They noted that the SCM activities were a significant variable that mediated the effect of the product development stage on the operational management decisions. Based on the findings of the study, the researchers recommended that The Group needs to show a higher interest in the site costs as the selection indicator and for determining the preliminary estimates while considering the information sharing.

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IMPLEMENTATION OF SMART-CITY TOOLS AS A RESPONSE TO CHALLENGES IN SOCIO-HUMANITARIAN FIELD IN UKRAINIAN METROPOLISES

(pages 23-30)

Iryna Khozhylo

Dnipropetrovsk Regional Institute of Public Administration of the National Academy of Public Administration under the President of Ukraine, Hoholia str. 29, 49044 Dnipro, Ukraine, ORCID: 0000-0001-8532-4108, i.khozhylo@gmail.com (corresponding author)

Nataliia Lipovska

Dnipropetrovsk Regional Institute of Public Administration of the National Academy of Public Administration under the President of Ukraine, Hoholia str. 29, 49044 Dnipro, Ukraine, ORCID: 0000-0002-9288-4733, lna85775@gmail.com

Olena Chernysh

Donetsk state university of management, Karpins'koho St, 58, 87500 Mariupol, Ukraine, ORCID: orcid.org/0000-0001-8761-9890, chernysh.o@inbox.dsum.edu.ua

Olga Antonova

Dnipropetrovsk Regional Institute of Public Administration of the National Academy of Public Administration under the President of Ukraine, Hoholia str. 29, 49044 Dnipro, ORCID: 0000-0002-3283-8938, max.antonova@gmail.com

Oleg Diegtiar

O. M. Beketov National University of Urban Economy in Kharkiv, Marshala Bazhanova St. 17, 61002 Kharkiv, Ukraine, ORCID: 0000-0001-6413-3580, odegtyar@i.ua

Oksana Dmytriieva

Kharkiv National Automobile and Highway University, Business and Administration Faculty, Yaroslava Mudrogo St. 25, 61002 Kharkiv, Ukraine, ORCID: 0000-0001-9314-350X, oksanahnadu@gmail.com

Keywords: urbanization, information and communication technologies (ICTs), urban management, smart cities, socio-humanitarian sphere.

Abstract: The article investigates theoretical foundations of public management in the socio-humanitarian sphere of metropolises based on the smart city concept. It defines the essence of the concept of "public management in the socio-humanitarian sphere" in a metropolis, which should be considered as a multi-branch and inter-sectoral complex formed with the involvement of local authorities, business partners, the public, and citizens, and aims to create, maintain, and

develop a favorable safe environment as a unified system of life and livelihood of the city based on the balanced development of the main sectors of the economy and socio-humanitarian sphere. The abstract also defines criteria for the efficiency of public management in the socio-humanitarian sphere within a modern metropolis, which include integrity, sustainability, and security of the subjects in obtaining a positive effect of solving socio-humanitarian issues within a metropolis. The main mechanism of public administration in a metropolis is establishment of interaction in the triad "power - business - community" and coordination of their interests (business - "here and now", community - "the welfare of our children", the state - "the welfare of citizens"). It is confirmed that the digitalization of public administration contributes to strengthening control over the use of all types of resources for the optimal development of the socio-humanitarian sphere of Ukrainian cities.

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THE NEXUS BETWEEN ORGANISATIONAL CAPABILITIES, ORGANISATIONAL READINESS AND REVERSE SUPPLY CHAIN ADOPTION

(pages 31-37)

Mohammad A.K Alsmairat

Luminus Technical University College, Airport Rd., Bridge, Jordan, m.alsmairat@ltuc.com; moh_cis2004@yahoo.com, <https://orcid.org/0000-0001-8543-2811>

Keywords: environmental factors, organisational readiness, Reverse Supply Chain.

Abstract: Successful Reverse Supply Chain Adoption (RSC) adoption requires a clear identification and understanding of Organizational Capabilities, assets, and resources internally and externally. Towards this end, this research assesses the nexus between organisational capabilities and RSC Adoption with a focus on the mediation role of organisational readiness. A survey method was used to achieve the research objectives. Different manager levels from the Jordanian industrial sector were selected by using a convenient sample technique. SMART PLS 3 was used to conduct Structural Equation Modelling (SEM). The outcomes represent a significant influence for internal organisational capabilities on the RSC adoption. As a mediation result, organisational readiness has a mediation role between internal organisational capabilities and the RSC adoption.

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PROGRAM FOR THE DELIVERY OF BASIC NECESSITIES OF A WAREHOUSE DURING THE COVID-19 PANDEMIC

(pages 39-49)

Erika Barojas-Payán

Facultad de Ingeniería-UV, Carretera Sumidero-Dos Ríos S/N, Ixtaczoquitlán, Veracruz, Mexico, 94450, ebarojas@uv.mx, (corresponding author)

Elsa-Nereyda de la Cruz-Zopiyactle

Facultad de Ingeniería-UV, Carretera Sumidero-Dos Ríos S/N, Ixtaczoquitlán, Veracruz, Mexico, 94450, nereydaelsa123@gmail.com

Diana Sánchez-Partida

UPAEP University, C. 17 Sur 901, Barrio de Santiago, 72410 Puebla, Puebla, Mexico, diana.sanchez@upaep.mx

Ignacio Sánchez-Bazán

Facultad de Ciencias Químicas-UV, Ote 6, 10009, Rafael Delgado, Orizaba, Veracruz, Mexico, 94340, igsanchez@uv.mx

Victorino Juárez-Rivera

Facultad de Ingeniería-UV, Carretera Sumidero-Dos Ríos S/N, Ixtaczoquitlán, Veracruz, Mexico, 94450, vijuarez@uv.mx

Keywords: warehouse, vehicle routing with capacity, logistics costs, COVID-19 consequences.

Abstract: The purpose of the research is to reduce the logistics costs of a warehouse supplier of products belonging to the primary consumer located in the central area of the State of Veracruz, Mexico. There is an increase in the number of stores to supply due to the quarantine. As a result, its high costs have been negatively affected. Therefore, the project focuses on minimizing the distances travelled in delivering its products, which will reduce costs. From applying vehicle routing with capacity (CVRP), a redesign of delivery routes is carried out weekly, proposing a new weekly delivery schedule of 22 routes and 162 destinations. With the CVRP application decreased 23.61% in the distance travelled even with an 8% increase in recipients. Thus, it reflects the fulfilment of the delivery objective to the current stores and those added by the warehouse. The research addresses two problems, first the costs incurred by the warehouse for the delivery of its products. The second is the increase in supply due to the initiative to prevent the spread of the COVID-19 virus, avoid the displacement of long distances to purchase products by the inhabitants and reduce those who attend the stores' Warehouse supplies.

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RISK ASSESSMENT AND RISK MITIGATION IN A SUSTAINABLE TUNA SUPPLY CHAIN

(pages 51-61)

Daniel Bunga Paillin

Industrial Engineering Department, Pattimura University, Jl. Ir. M. Putuhena-Kampus Poka, Ambon, 97233, Indonesia, dani.ti.fatek@gmail.com (corresponding author)

Johan Marcus Tupan

Industrial Engineering Department, Pattimura University, Jl. Ir. M. Putuhena-Kampus Poka, Ambon, 97233, Indonesia, johan.tupan@fatek.unpatti.ac.id

Jacobus Bunga Paillin

Faculty of Fisheries and Marine Sciences, Pattimura University, Jl. Mr. Chr. Soplanit-Kampus Poka, Ambon, 97234, Indonesia, bobby_bunga@gmail.com

Wilma Latuny

Industrial Engineering Department, Pattimura University, Jl. Ir. M. Putuhena-Kampus Poka, Ambon, 97233, Indonesia, wlatuny@gmail.com

Victor Oryon Lawalata

Industrial Engineering Department, Pattimura University, Jl. Ir. M. Putuhena-Kampus Poka, Ambon, 97233, Indonesia, lawalata.victor@gmail.com

Keywords: sustainable, tuna, risk, House of Risk, Aggregate Risk Priority.

Abstract: This study aimed to conduct a risk assessment and minimize the risk of sustainable tuna supply chains in Ambon. The House of Risk (HOR) approach was utilized in this study to identify risk occurrences and risk agents in three aspects of sustainability. The study results identified 15 risk events and 26 risk agents consisting of four risk events and five risk agents on the environmental dimension, five risk events and eleven risk agents on the social dimension, six risk events, and ten risk agents on the economic dimension. The HOR phase I shows that the risk agent with the highest Aggregate Risk Priority (ARP) value is the lack of environmental management system standards (A4), and the risk agent with the lowest ARP value is inhumane treatment/harassment (A12). Based on the Pareto principle, 7 Risk Agents will be prioritized to be handled according to the highest ARP value, such as lack of environmental management system standards (4170), lack of quality control inspection (3790), lack of maintenance management (3346), lack of quality control from suppliers (3000), lack of enthusiasm for work (2984), decreased level of discipline (2832). The internal communication system of the company is poor (2538). Furthermore, 15 mitigating techniques are proposed. Twelve mitigation technique steps are chosen from 15 recommended solutions to prevent the causes of risk based on the effectiveness to difficulty (ETD) value from HOR phase II.

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IMPROVING COMPETITIVENESS OF SMALL AND MEDIUM ENTERPRISES BASED ON LOCAL LEADING PRODUCTS IN TARAKAN CITY, INDONESIA

(pages 63-74)

Mohamad Nur Utomo

Universitas Borneo Tarakan, Jl. Diponegoro No. 23, Tarakan, Indonesia,
mohnurutomo@gmail.com (corresponding author)

Kaujan Kaujan

Universitas Borneo Tarakan, Jl. Amal Lama No. 1, Tarakan, Indonesia,
kaujanmr@gmail.com

Widyastuti Cahyaningrum

Universitas Borneo Tarakan, Perum Korpri Blok F No. 21, Tarakan, Indonesia,
widyairawan77@gmail.com

Keywords: local leading products, work sectors, Analytical Hierarchy Process, economic growth, improving competitiveness.

Abstract: The competitiveness of SMEs is enhanced by compiling a map consisting of local superior employment sectors and local superior products. This study aims to identify and map the work sector and products of Small and Medium Enterprises that need to be developed to become the local carrying capacity of Tarakan City. Sources of data include primary data (questionnaires from respondents) and secondary data (GRDP data for the city of Tarakan). Data analysis methods include Location Quotient (LQ), Klassen Typology, and Analytical Hierarchy Process (AHP). The results showed that the fishery-based processing industry is an employment sector that has great potential to become a local leading sector in Tarakan City. The results also reveal that the competitiveness of SMEs can be increased by developing local superior products. This development must meet three criteria, respectively: development must be oriented towards the conservation of resources and the environment; its development must only involve products with local raw materials and local uniqueness, and its development is supported by local communities. Another finding is about three priority local superior products, namely Dried Fish/Peyek Pepija, Shredded Milkfish, and Amplang Milkfish Crackers. These results can be used as a basis for making policies regarding the development of a country's local superior products.

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VEHICLE ASSIGNMENT WITH PENALTY COSTS: A CASE OF MEXICAN FREIGHT TRANSPORT

(pages 75-84)

Felix Eduardo Bueno-Pascual

UPAEP University School of Logistics and Supply Chain Management Avenida 9 Poniente 1712 CP 72410 Puebla, Puebla, Mexico, felixeduardo.bueno@upaep.edu.mx (corresponding author)

Jose Luis Martinez-Flores

UPAEP University School of Logistics and Supply Chain Management Avenida 9 Poniente 1712 CP 72410 Puebla, Puebla, Mexico, joseluis.martinez01@upaep.mx

Diana Sanchez-Partida

UPAEP University School of Logistics and Supply Chain Management Avenida 9 Poniente 1712 CP 72410 Puebla, Puebla, Mexico, diana.sanchez@upaep.mx

Patricia Cano-Olivos

UPAEP University School of Logistics and Supply Chain Management Avenida 9 Poniente 1712 CP 72410 Puebla, Puebla, Mexico, patricia.cano@upaep.mx

Keywords: assignment model, freight transport, trucks productivity, operations research, vehicle assignment.

Abstract: The reduction of logistics costs is very important for Mexican companies, especially for those from freight transport industry. They must manage their operations efficiently and effectively to increase the revenue, which is reduced if trucks are not being productive. The objective of this research is to provide a model for a Mexican freight transport company, which lets the company reduce transportation costs, based on assignment models to make daily assignment programme of trucks. One particularity of the model being built is the fact that it will not only include general costs as in a Generalised Assignment Procedure (GAP), but also penalty costs caused by truck drivers. The main problem consisted in minimize the total cost of assigning 100 vehicles owned by the company to 10 routes (in which it was required to be transported molasse, and sand), considering that trucks cannot be assigned to some routes due to their characteristics, as well as they must assign different operators to the routes (which are classified as A, B, and C, depending on the characteristics like license type, performance, among others); thus, it was able to assign 100 operators with different characteristics to 100 different units required in 10 routes to satisfy market demands, achieving a reduction about 44.11% of current costs related to assignment, maintenance, idle time, penalty, and logistics costs.

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MANAGEMENT TOOLS AND SYSTEMS – USAGE IN LOGISTICS COMPANIES IN THE CZECH REPUBLIC

(pages 85-98)

Adam Pawliczek

Moravian Business College Olomouc, Institute of Economics and Management, tř. Kosmonautů 1288, 779 00 Olomouc, Czech Republic, EU, adam.pawliczek@mvso.cz

Pavel Kolos

VSB – Technical University Ostrava, Faculty of Materials Science and Technology, Department of Economics and Management in Industry, 17. listopadu 15/2172, 708 00 Ostrava-Poruba, Czech Republic, EU, pavel.kolos.st@vsb.cz

Radim Lenort

ŠKODA AUTO University, Department of Production, Logistics and Quality Management, Na Karmeli 1457, 293 01 Mladá Boleslav, Czech Republic, EU, radim.lenort@savs.cz (corresponding author)

Stefan Kolumber

Moravian Business College Olomouc, Institute of Economics and Management, tř. Kosmonautů 1288, 779 00 Olomouc, Czech Republic, EU, stefan.kolumber@mvso.cz

Pavel Wicher

ŠKODA AUTO University, Department of Production, Logistics and Quality Management, Na Karmeli 1457, 293 01 Mladá Boleslav, Czech Republic, EU, pavel.wicher@savs.cz

Keywords: management, tools, systems, trends, strategy, logistics companies.

Abstract: The paper presents the analysis and comparison of management tools and systems usage in companies in Czech Republic as the part of the research that has been done in 2013 and then in 2021 via structured questionnaires. The aim of the paper is to define which management tools and systems are being used by Czech logistics centers, distribution and transport companies and warehouses, what are differences based on the company size (micro, small and medium, large size companies) and what are similarities and new trends across the research sample. The output of the research presents the total and relative frequency of management tools and systems usage comparing 2013 and 2021 outputs and describe current trend of usage, especially with continuous improvement tools (Kaizen, Lean, 6Sigma) that popularity and positive impact on companies' metrics and results is unarguable. TOP 10 management tools and systems are almost same in 2013 and 2021. Usage of management tools and systems in 2021 is higher than 2013 and the increase is significant. We can see the progress of KPI which total frequency (TF) was 25 and relative frequency (RF) was 5.80% in 2013 and 2021 results presents TF: 292 and RF 76.40%.

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THE IMPACT OF THE DEVELOPMENT OF PERSONNEL COSTS ON THE PROFITABILITY INDICATORS OF ROAD FREIGHT TRANSPORT COMPANIES IN THE CZECH REPUBLIC

(pages 99-107)

Josef Kutac

VSB - Technical University of Ostrava, Faculty of Materials Science and Technology, Department of Economics and Management in Industry, Ostrava, Czech Republic, EU, josef.kutac@vsb.cz (corresponding author)

Kamila Janovska

VSB - Technical University of Ostrava, Faculty of Materials Science and Technology, Department of Economics and Management in Industry, Ostrava, Czech Republic, EU, kamila.janovska@vsb.cz

Tomas Kutac

ArcelorMittal Tubular Products Karviná a.s., IT Center of Excellence - Business Automation Projects, Czech Republic, EU, tomas.kutac@arcelormittal.com

Petr Besta

VSB - Technical University of Ostrava, Faculty of Materials Science and Technology, Department of Economics and Management in Industry, Ostrava, Czech Republic, EU, petr.best@vsb.cz

Keywords: personnel costs, profit, labour productivity.

Abstract: The paper's main objective is to investigate the effects of personnel cost growth between 2014 and 2019 on the profitability of selected large road freight transport companies based on the collection of publicly available data of these transport companies. The first sub-objective of the paper is to conduct the necessary data collection from the financial statements of road freight transport companies with more than 250 workers. The second sub-objective of the paper is to define financial ratios and to assess the impact of personnel cost growth on the profitability of these enterprises. The third sub-objective is to determine the development of selected financial ratios over the period 2014 to 2019 and to evaluate the impact of personnel cost growth on the development of these ratios for selected transport companies. As a result of the fulfilment of these goals, we identified that an increase in personnel cost led in chosen transport companies in the years 2015 – 2016 to a significant decrease in labour productivity in the form of sales per employee and decreased profit. In the years 2017 – 2018, the year-on-year increase in personnel cost slowed down with impact to improved labour productivity and improved profit. In 2019 although another increase in personnel cost occurred, the situation changed, and labour productivity and profit increased. Analysis of these data showed that an increase of labour productivity in the form of sales per employee and profit increase in 2018 and 2019 was done thanks to the increasing price of transportation that covered higher personnel costs.

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FACTORS AFFECTING STOPPING BEHAVIOUR AT SUBURBAN INTERSECTIONS

(pages 109-114)

Walaa Darwish

Yarmouk University, Shafiq Irshidat st., Irbid, Jordan, walaa.d@yu.edu.jo

Keywords: driver compliance, stop sign, suburban, intersections.

Abstract: This study focused on how drivers dealt with intersections controlled by a stop sign at suburban in Al-Husn city at Irbid governorate, Jordan. The videotape was used at eight unsignalized intersections for one complete peak hour on weekdays. Any at-grade intersection that is not controlled by a traffic signal is defined as an "unsignalized intersection." The results showed that 48% out of 1,208 drivers took the decision to stop completely compared to 52% who chose to keep driving. Female drivers (75%) were observed to stop at intersections more frequently than male drivers. In terms of

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vehicle type, drivers of buses stopped more frequently than drivers of small passenger cars, which are road car, other than a motorcycle, that is designed to transport passengers. Driver age and compliance to a stop sign were found to be directly proportional to each other, but as the number of passengers in the vehicle increased, the rate of non-compliance also increased. Compliance was highest among leading vehicles, followed by following vehicles, and lowest among single vehicles. A binary logistic model showed that age, vehicle occupancy, and arrival pattern significantly affected stopping the behaviour. Gender and vehicle type were not significantly related to stopping the behaviour.
