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Distributive Efficiency: Enhancing On-Time Delivery Through Accessibility and FIFO Integration

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Abstract: The purpose of this scientific article is to provide insight into strategies and steps that can be taken by companies to overcome such problems and improve the efficiency of their distribution systems. Thus, this article can contribute to the existing literature in the field of supply chain management, logistics, and overall business operations. The method used is qualitative by presenting the results in the literature derived from related scientific articles. Research findings are presented in the form of research reports or scientific articles that highlight the methodology, main findings, interpretation, and implications of the study. The final result of this scientific article makes a contribution from the perspective of the researcher. To achieve excellence in the distribution and delivery of goods, companies need to adopt a holistic approach and use the right technology. By taking into account findings from previous research, companies can improve their operational performance, reduce costs, and increase customer satisfaction through the implementation of efficient and innovative distribution strategies.

Keyword: Distribution System, Accessibility, FIFO, On time Delivery

INTRODUCTION

The distribution system plays a crucial role in ensuring products or services reach consumers on time. An efficient distribution system not only includes smooth logistics but also pays attention to equitable accessibility and a well-integrated first in first out (FIFO) principle (Ren *et al.*, 2022). Accessibility is the main foundation of building a successful distribution system. This involves choosing a strategic warehouse or distribution center location so that it can be easily reached by various modes of transportation, ranging from land, sea, air, to rail (Kostikov, Jílková and Stránská, 2021). The right location will ensure efficiency in the shipping process, reduce freight costs, and speed up the overall delivery time. However, accessibility alone is not enough. FIFO principles are also key in maintaining product integrity and quality during the distribution process (Ramadani, Bhawika, and Baihaqi, 2021). By applying this principle, the first item to enter the warehouse will be a priority for shipment, thus avoiding the accumulation of goods that take a long time in the warehouse and reducing the risk of damage or expiration.

However, this FIFO system must be supported by adequate infrastructure and technology. The use of a sophisticated inventory management system that is well connected to the distribution system will enable accurate monitoring of stock and more efficient management of orders (Heryanto and Santoso, 2023). Thus, delivery errors and delays can be minimized. As technology advances, the concept of distribution has also changed. Modern distribution systems tend to adopt technologies such as the Internet of Things (IoT), Big Data Analytics, and artificial intelligence to optimize delivery routes, predict consumer demand, and identify potential problems quickly (Baskar and Palaniammal, 2014). In increasingly fierce competition, on-time delivery is no longer just an additional advantage but has become a decisive factor in maintaining and increasing market share. By combining efficient distribution systems, good accessibility, and integrated FIFO principles, companies can ensure that their products or services arrive on time in the hands of consumers, form a strong reputation, and win customer trust (Laaksonen *et al.*, 2021).

However, there are various problems that can arise related to the distribution system. One of them is the lack of accessibility. Many companies face obstacles in choosing a strategic warehouse or distribution center location (Avila-Soler *et al.*, 2023). Locations that are not easily accessible by various modes of transportation can lead to an increase in shipping costs and the time it takes to deliver products to consumers (Wati and Nuha, 2018). This becomes a serious problem in achieving the on-time delivery expected by customers. In addition, the application of the first in first off (FIFO) principle can also be a challenge (Shestoperov and Rukavishnikova, 2016). While this principle should ensure that first-time incoming goods are given priority for delivery, in practice, there are other factors that can influence this. For example, if the inventory management system is inefficient or if something goes wrong in order processing, then the order of delivery could be disrupted, causing delays in on-time delivery (Kukartsev *et al.*, 2023).

Another problem is the imbalance between demand and distribution capacity (Kostikov, Jílková and Stránská, 2021). Sometimes, distribution systems are not able to handle spikes in demand efficiently, especially in situations such as holiday seasons or large sales. This can result in increased delivery times and potential stock shortages, which in turn can disrupt on-time delivery (Karot and Pornsing, 2024). Lack of accessibility, challenges in implementing FIFO principles, and imbalance between demand and distribution capacity are major barriers to achieving the on-time delivery desired by customers (Menaka *et al.*, 2023). Therefore, companies need to pay close attention to these aspects in designing and managing their distribution systems in order to provide reliable services and meet consumer expectations.

Therefore, the purpose of this scientific article is to provide insight into strategies and steps that can be taken by companies to overcome these problems and improve the efficiency of their distribution systems. Thus, this article can contribute to the existing literature in the field of supply chain management, logistics, and overall business operations.

Distribution System

A distribution system refers to the set of processes and activities involved in delivering a product or service from a producer or provider to the end consumer. It covers various stages such as inventory management, packaging, shipping, and final delivery to customers. The distribution system aims to ensure that the product or service is available and accessible to consumers efficiently and in a timely manner (Coyle *et al.*, 2021). Distribution systems can also refer to the physical infrastructure and technology used to distribute products or services to consumers. This includes transportation networks, warehouses, distribution centers, and information and management systems that support the distribution process (Hugos, 2024)

The results of related research stated that the latest technology, major obstacles, and challenges in the development of the Energy Distribution and Efficiency System (DSSE) were

presented. In addition, opportunities, paradigm shifts, and research directions that can strengthen are also discussed needed DSSE (Primadianto and Lu, 2016). Studi lain stated the use of Blockchain Technology in the supply chain of charity goods can significantly reduce fraud and false requests (Kumar, 2021). Other studies with regard to this variable state efficient data structures and artificial intelligence approaches to each such problem, which depends on the type of input signal, the structure of the problem based on the search or game, as well as the source of uncertainty involved. Specifically, the potential use of supervised and unsupervised deep learning combined with Monte Carlo Tree Search and greedy search was explored to find near optimal operational decisions that help improve the resilience of power distribution systems (Hosseini and Parvania, 2021).

Accessibility

Accessibility in the context of logistics refers to the ease of access and use of logistics infrastructure, facilities, and services by various parties involved in the supply chain. This includes physical accessibility to warehouses, ports, terminals, as well as easy access to information and communication related to shipping, inventory management, and operational monitoring (Christopher, 2022) Accessibility in the context of logistics refers to the ability to easily access and use the logistics infrastructure, facilities, information, and services needed to move goods from producers to end consumers. This includes physical accessibility to warehouses, ports, terminals, and storage facilities, as well as the ability to obtain pertinent information such as shipment status, inventory locations, and transportation schedules. In logistics, good accessibility plays an important role in ensuring the smooth flow of goods and information throughout the supply chain (Rushton, Croucher and Baker, 2022).

Related research results from (Verhetsel *et al.*, 2015) Stating the price of land rent is the most important factor in the choice of location of logistics companies in Flanders. Access to ports became the second most important factor, followed by access to toll roads, location in industrial parks, and inland navigation terminals, all of which have the same level of importance. Access to the railway terminals does not have a significant role in the selection of the location of logistics companies in Flanders. Another study states these companies choose locations closer to highways and other transport infrastructure compared to other sectors, and the logistics sector is heavily impacted by urbanization. However, they have also begun to locate their operations in the suburbs and partly in extra urban areas that have good accessibility, while urban centers in urban areas have decreased the number of logistics companies (Holl and Mariotti, 2018).

Another related study states that this model was tested in case studies related to the perishable fresh fruit supply chain. Information for model parameterization was obtained through surveys conducted to actors at various levels of the fresh fruit supply chain over a four year period, which were then supplemented by secondary information from public and private companies (Orjuela-Castro, Orejuela-Cabrera and Adarme-Jaimes, 2022).

First In First Out (FIFO)

FIFO (First In, First Out) is an inventory management method in which the first item or product to enter the warehouse or storage will be the first to be issued or sold. In other words, goods that take longer to enter will take precedence to be processed or sold before goods that enter later. This method is commonly used in various industries, especially in inventory management of goods that have expiration or expiration dates (Chopra and Meindl, 2016). FIFO, also known as First-In-First-Out, is a concept or principle that is often applied in a variety of contexts, not only in inventory management. This principle refers to the idea that the first item or item to enter or be produced will be the first to be issued or used. FIFO can be applied in various situations, including in customer service queues, stock expenditures in warehouses, and the use of raw materials in production (Stevenson, Hojati and Cao, 2018).

The FIFO-related research results of the first-in-first-out algorithm are not useful as flow algorithms; however, they are considered suitable as reference algorithms when compared to other algorithms such as priority queues, custom queues, fair queues, and weighted fair queues, the advantages and disadvantages of each algorithm are verified and the best usage conditions based on certain parameters, such as packet loss probability, the average delay of time, and jitter, is described (Attar *et al.*, 2020). How this architecture can be used to enumerate fully connected layers. Overall, we were able to surpass the latest architectural performance by more than 1.65 times using affordable boards running at 100Mhz (Panchbhaiyye and Ogunfunmi, 2021).

Other results state this proposed asynchronous FIFO model, has demonstrated an efficient FIFO architecture in area use, and this article also presents results obtained through VHDL (Very high-speed integrated circuit Hardware Description Language) simulations and FPGA implementations to demonstrate the reliability of the proposed model (Das *et al.*, 2022).

On Time Delivery

On Time Delivery in logistics refers to the ability to deliver goods or services to customers on time as promised or expected. It is a key performance indicator in the supply chain that determines the extent to which a company can meet customer needs in terms of desired time (Kula *et al.*, 2021). On Time Delivery in the context of logistics can also be interpreted as the achievement of delivering goods or services to customers on time, according to a predetermined schedule. This involves efficient coordination in the process of picking goods, processing, packaging, shipping, and distribution so that goods or services can arrive at the intended location according to the time expected or promised to customers (ERDIL, 2021).

The results of research related to On Time Delivery state that merchant ESS owners can take advantage of the effects of competition to avoid violating their energy capacity limits, and proposed methods that take into account risk make it possible to obtain more spare capacity, and thus greater value, from storage, without threatening the real-time reliability of the power system (Toubeau *et al.*, 2020). Efficiency of on-time delivery considerations in selecting internal and external suppliers. The application of the VIKOR method shows better performance from the Soyster method compared to the Mulvey method. The results emphasize the performance of the proposed model in which decision makers can choose among different types of suppliers (internal and external) based on on-time delivery, total cost, and environmental impact (Abdolazimi *et al.*, 2020).

METHOD

The method used is qualitative by presenting the results in the literature derived from related scientific articles. Research findings are presented in the form of research reports or scientific articles that highlight the methodology, main findings, interpretation, and implications of the study. The final result of this scientific article makes a contribution from the perspective of the researcher.

RESULT AND DISCUSSION

In this scientific article, the results and discussion will be described from the literature related to the variables used in this article:

Implementation of Distribution System with On Time Delivery

Studies that state that states in the results that optimization excellence alongside improvement and recovery (Arif *et al.*, 2018). Another study states in the results that material delivery and operational performance improvement show that the proposed approach can

ensure smooth material distribution by scheduling automated transportation vehicles in an integrated manner (Rahman and Nielsen, 2019). Another study states that simulations indicate that proposed strategies for optimal reconfiguration of distribution systems during load variations have proven effective (Mahdavi *et al.*, 2021). Other studies also state in the results that optimization advantages alongside repair and recovery. The study also states that the researchers and colleagues present a deep learning-based real-time autonomous distribution planning method that controls both the shape and position of the group, as well as an imaging system used for group navigation to reach longer distances (Yang *et al.*, 2022).

The key factors influencing platform and restaurant decisions are the proportion of service fees to food expenses, the compensation costs that platforms provide to consumers, and the probability of late delivery. When the proportion of service fees is low, it is advantageous for platforms and restaurants to offer OTD services with compensation if the compensation cost and probability of late delivery are not high at the same time. However, if the proportion of service fees is high, platforms should consider launching such services only if the compensation costs and probability of delivery delays are moderate, while restaurants may not benefit from offering such services (Du, Fan and Chen, 2023).

Another results study also states Creating a time scheduling model with the aim of reducing overall order operation costs, reducing the time difference between expected and actual in completing service orders, as well as increasing the satisfaction of useful logistics service providers (Tang, 2023) Another related study states in its research results Sustainable energy through rigorous academic evaluation. At an additional level, decentralized and complex regulatory mechanisms are suggested to overcome transmission line bandwidth limitations and operational costs in energy utility networks. These innovative measures have the potential to change the basic structure of the energy landscape, bringing unprecedented efficiency and sustainability (Ahmed *et al.*, 2023).

Implementation of Accessibility with On Time Delivery

Studies from (Luo, Rong and Zheng, 2020) state that all other things being equal, consumers prioritize word-of-mouth (WOM) about logistics and delivery times when making purchasing decisions, while assigning less importance to self reported logistics services. The impact of logistics information on sales shows an asymmetric effect for both large and small sellers. Another study cited transportation time as the most significant constraint in distributing goods by rail, while accessibility and load size were the most significant constraints in using ocean shipping, and how the constraints of shifting shippers' capital in New Zealand vary depending on the individual or logistical characteristics of the company (Kim and Nicholson, 2013). A number of challenges and limitations must be overcome before this technology can be widely adopted, including safety and regulatory requirements, weather and environmental conditions, battery life and range, navigation, and public perception (Nurgaliev, Eskander and Lis, 2023)

Other studies have also stated a failure to explain how package delivery by drones would improve consumer accessibility and often overlooked key assumptions such as weather, flight duration, and battery capacity is striking. In addition, current research mainly focuses on dron shipments within the United States, ignoring other regions such as Africa and Asia (Garg *et al.*, 2023).

FIFO Implementation with On Time Delivery

The results of the study that stated the application of the FIFO method in the design of the kanban checklist aimed to overcome recording problems that often occur in the process of shipping in and out of goods in the warehouse. By using the kanban system, the process of managing products from entry to exit becomes more efficient, making it easier for operators to carry out. Item data will be automatically recorded in the computer's existing kanban checklist, with barcode types that can accept data input in various formats, including letters, numbers, and symbols. This is important because the data inputted in barcodes can be in all three formats (Hanum, 2022). Another study states that results from 42 public benchmark examples show that K2MS managed to improve on the best known results on 16 examples in a reasonable time frame, and managed to match the best known results in all other examples, except for two examples, demonstrating its superiority in competing with current algorithms. Finally, an ablation study was conducted to analyze the importance of several key components of the algorithm (Zhu, Chen and Fu, 2022).

Another study states numerical experiments of various scales and sensitivity analysis show that the model and MA are effective when compared to exact algorithms, CPLEX, and adaptive large neighborhood search, Multi-echelon distribution strategies have been widely applied in municipal logistics systems (Zhou *et al.*, 2024). Another study states Developing ways how WMS with automatic suggestion capabilities to implement FIFO/FEFO can handle potential problems that may arise in warehouse management and provide added value for lean warehouses (Hietasari, Subianto and Adi, 2024). Another study also states the system used by CV. Adi Sejahtera Bandung has several shortcomings, especially in recording raw material transactions manually which are less effective, prone to errors, and cause delays in the sales process due to slow access to goods information (Waryanto and Haryadi, 2024).

Discussion

Implementation of Distribution System with On Time Delivery (OTD)

The discussion on this subject from the perspective of researchers from the literature that has been described provides valuable insights in the development and application of distribution systems with OTD, as well as highlighting challenges and potential solutions in an effort to achieve efficiency and sustainability in energy distribution and management. Next

Implementation of Accessibility with On Time Delivery

The discussion of this from the point of view provides a deeper understanding of the challenges and potential solutions in implementing accessibility with OTD, and highlights the need for broader and diversified research in a global context.

Implementation FIFO with On Time Delivery

The discussion of this matter from the perspective of researchers then provides a deeper understanding of the challenges and potential solutions in implementing the FIFO method in the context of OTD. By using the right technology and approach, companies can improve efficiency, accuracy, and reliability in their distribution processes.

CONCLUSION

The results of the study quoted from various researchers provide a comprehensive picture of the implementation of various strategies and technologies in the context of distribution and delivery of goods, especially related to the concept of On Time Delivery (OTD). Various approaches such as joint optimization of repair and recovery, kanban systems with FIFO methods, and the use of warehouse management systems (WMS) with auto-suggestion capabilities to implement FIFO/FEFO have been researched to improve efficiency, accuracy, and reliability in distribution processes.

The importance of using automation technologies, such as computerized systems and deep learning-based systems, has been emphasized to address challenges in distribution, such as stock management, route planning, and navigation. However, the study also highlighted

some weaknesses in the systems used by companies, especially related to error-prone manual record-keeping and slow access to information.

To achieve excellence in the distribution and delivery of goods, companies need to adopt a holistic approach and use the right technology. By taking into account findings from previous research, companies can improve their operational performance, reduce costs, and increase customer satisfaction through the implementation of efficient and innovative distribution strategies.

REFERENCES

- Abdolazimi, O. *et al.* (2020) 'Robust design of a multi-objective closed-loop supply chain by integrating on-time delivery, cost, and environmental aspects, case study of a Tire Factory', *Journal of Cleaner Production*, 264, p. 121566.
- Ahmed, I. *et al.* (2023) 'The nexus of energy in microgrids: A review on communication barriers in distributed networks auxiliary controls', *IET Generation, Transmission & Distribution*, 17(22), pp. 4907–4922.
- Arif, A.I. et al. (2018) 'Power Distribution System Outage Management With Co-Optimization of Repairs, Reconfiguration, and DG Dispatch', *IEEE Transactions on Smart Grid*, 9, pp. 4109–4118. Available at: https://api.semanticscholar.org/CorpusID:52121875.
- Attar, H. *et al.* (2020) 'Review and performance evaluation of FIFO, PQ, CQ, FQ, and WFQ algorithms in multimedia wireless sensor networks', *International Journal of Distributed Sensor Networks*, 16(6), p. 1550147720913233.
- Avila-Soler, E. et al. (2023) 'Strategic location for the construction of a graphite trading warehouse in Mexico', Journal of Applied Research and Technology [Preprint]. Available at: https://api.semanticscholar.org/CorpusID:257828062.
- Baskar, S. and Palaniammal, S. (2014) 'QUEUEING MODELS IN MOBILE AD-HOC NETWORKS', *American Journal of Applied Sciences*, 11, pp. 308–315. Available at: https://api.semanticscholar.org/CorpusID:17623418.
- Chopra, S. and Meindl, P. (2016) 'Supply Chain Management–Strategy, Planning, and Operation 6 th Edition'.
- Christopher, M. (2022) Logistics and supply chain management. Pearson Uk.
- Coyle, J.J. et al. (2021) Supply chain management: a logistics perspective. Cengage Learning.
- Das, S. et al. (2022) 'FPGA Implementation of asynchronous FIFO', in Proceedings of International Conference on Industrial Instrumentation and Control: ICI2C 2021. Springer, pp. 399–407.
- Du, Z., Fan, Z.-P. and Chen, Z. (2023) 'Implications of on-time delivery service with compensation for an online food delivery platform and a restaurant', *International Journal of Production Economics*, 262, p. 108896.
- ERDIL, A. (2021) 'Development Supply Chain Management In Terms of Quality Function: An Application in the Manufacturing Industry', Avrupa Bilim ve Teknoloji Dergisi, (26), pp. 456–465.
- Garg, V. et al. (2023) 'Drones in last-mile delivery: A systematic review on Efficiency, Accessibility, and Sustainability', *Transportation Research Part D: Transport and Environment*, 123, p. 103831.
- Hanum, B. (2022) 'Analysis of Barcode System Design and Checklist to Reduce the Lead Time of Delivery of Goods using FIFO Method at PT Indofood TBK Company of Indonesia', *International Journal of Scientific and Academic Research (IJSAR), eISSN: 2583-0279*, 2(6), pp. 1–8.
- Heryanto, R.M. and Santoso, S. (2023) 'Determination of Distribution Center Location using Analysis of Time-Based Set Covering Model and Maximal Covering Model Analysis', *OPSI* [Preprint]. Available at: https://api.semanticscholar.org/CorpusID:259712092.

- Hietasari, D.N., Subianto, D.I. and Adi, T.W. (2024) 'Conceptual framework of warehouse management system with auto suggesting features for FIFO/FEFO implementation towards lean warehousing', in *AIP Conference Proceedings*. AIP Publishing.
- Holl, A. and Mariotti, I. (2018) 'The geography of logistics firm location: the role of accessibility', *Networks and Spatial Economics*, 18(2), pp. 337–361.
- Hosseini, M.M. and Parvania, M. (2021) 'Artificial intelligence for resilience enhancement of power distribution systems', *The Electricity Journal*, 34(1), p. 106880.
- Hugos, M.H. (2024) Essentials of supply chain management. John Wiley & Sons.
- Karot, T. and Pornsing, C. (2024) 'Just-in-Case Inventory Management under Partial Supply Disruptions', *The 11th Asia Conference on Mechanical and Materials Engineering* (ACMME) [Preprint]. Available at: https://api.semanticscholar.org/CorpusID:266795164.
- Kim, H.-C. and Nicholson, A.J. (2013) 'Freight Transport Modal Shift in NZ: Building Understanding of Shippers' Mode Choice based on RP (revealed preference)/ SP (stated preference) surveys', in. Available at: https://api.semanticscholar.org/CorpusID:159216625.
- Kostikov, E., Jílková, P. and Stránská, P.K. (2021) 'Optimization of e-commerce distribution center location', *Marketing and Management of Innovations* [Preprint]. Available at: https://api.semanticscholar.org/CorpusID:238041750.
- Kukartsev, V. *et al.* (2023) 'Using digital twins to create an inventory management system', *E3S* Web of Conferences [Preprint]. Available at: https://api.semanticscholar.org/CorpusID:264111027.
- Kula, E. et al. (2021) 'Factors affecting on-time delivery in large-scale agile software development', *IEEE Transactions on Software Engineering*, 48(9), pp. 3573–3592.
- Kumar, A. (2021) 'Improvement of public distribution system efficiency applying blockchain technology during pandemic outbreak (COVID-19)', Journal of Humanitarian Logistics and Supply Chain Management, 11(1), pp. 1–28.
- Laaksonen, H. et al. (2021) 'Towards Flexible Distribution Systems: Future Adaptive Management Schemes', *Applied Sciences*, 11, p. 3709. Available at: https://api.semanticscholar.org/CorpusID:234808701.
- Luo, J., Rong, Y. and Zheng, H. (2020) 'Impacts of logistics information on sales: Evidence from Alibaba', Naval Research Logistics (NRL), 67, pp. 646–669. Available at: https://api.semanticscholar.org/CorpusID:212918735.
- Mahdavi, M. et al. (2021) 'Optimal Modeling of Load Variations in Distribution System Reconfiguration', 2021 IEEE International Conference on Environment and Electrical Engineering and 2021 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I\&CPS Europe), pp. 1–6. Available at: https://api.semanticscholar.org/CorpusID:241606230.
- Menaka, M. et al. (2023) 'Asynchronous Circular Buffers based on FIFO for Network on Chips', 2023 International Conference on Circuit Power and Computing Technologies (ICCPCT), pp. 1356–1361. Available at: https://api.semanticscholar.org/CorpusID:262131111.
- Nurgaliev, I., Eskander, Y. and Lis, K. (2023) 'The Use of Drones and Autonomous Vehicles in Logistics and Delivery', *Logistics and Transport* [Preprint]. Available at: https://api.semanticscholar.org/CorpusID:258858091.
- Orjuela-Castro, J.A., Orejuela-Cabrera, J.P. and Adarme-Jaimes, W. (2022) 'Multi-objective model for perishable food logistics networks design considering availability and access', *OPSEARCH*, 59(4), pp. 1244–1270.
- Panchbhaiyye, V. and Ogunfunmi, T. (2021) 'An efficient FIFO based accelerator for convolutional neural networks', *Journal of Signal Processing Systems*, 93(10), pp.

1117-1129.

- Primadianto, A. and Lu, C.-N. (2016) 'A review on distribution system state estimation', *IEEE Transactions on Power Systems*, 32(5), pp. 3875–3883.
- Rahman, H.F. and Nielsen, I. (2019) 'Scheduling automated transport vehicles for material distribution systems', *Applied Soft Computing*, 82, p. 105552.
- Ramadani, S.F., Bhawika, G.W. and Baihaqi, I. (2021) 'Objective and Subjective Integration in Distribution Center Location Selection: A Case Study of Battery- electric Motorcycle Sales', Proceedings of the 2nd International Conference on Business and Management of Technology (ICONBMT 2020) [Preprint]. Available at: https://api.semanticscholar.org/CorpusID:236602368.
- Ren, S. *et al.* (2022) 'Intelligent Manufacturing Planning System Using Dispatch Rules: A Case Study in Roofing Manufacturing Industry', *Applied Sciences* [Preprint]. Available at: https://api.semanticscholar.org/CorpusID:250133344.
- Rushton, A., Croucher, P. and Baker, P. (2022) *The handbook of logistics and distribution management: Understanding the supply chain.* Kogan Page Publishers.
- Shestoperov, O. and Rukavishnikova, T. (2016) 'The Stabilization of the Regulatory Burden: The "One-In, One-Out" Principle Implementation Challenges', in. Available at: https://api.semanticscholar.org/CorpusID:157538698.
- Stevenson, W.J., Hojati, M. and Cao, J. (2018) COMM 225: Production & Operations Management: Custom Publication for Concordia University. McGraw-Hill Education Custom Publishing.
- Tang, F. (2023) 'Application of a Cold-Chain Logistics Distribution System Based on Cloud Computing and Web Delivery Date Management', *International Journal of Information* Systems and Supply Chain Management (IJISSCM), 16(1), pp. 1–16.
- Toubeau, J.-F. *et al.* (2020) 'Data-driven scheduling of energy storage in day-ahead energy and reserve markets with probabilistic guarantees on real-time delivery', *IEEE Transactions on Power Systems*, 36(4), pp. 2815–2828.
- Verhetsel, A. *et al.* (2015) 'Location of logistics companies: a stated preference study to disentangle the impact of accessibility', *Journal of transport geography*, 42, pp. 110–121.
- Waryanto, A. and Haryadi, R. (2024) 'Application Of The Client Server Based Fifo Method In Raw Material Information Systems', *International Journal of Electrical Engineering*, *Mathematics and Computer Science*, 1(1), pp. 16–21.
- Wati, P.E.D.K. and Nuha, H. (2018) 'Pengembangan Model Capacitated Maximal Covering Location Problem (CMCLP) Dalam Penentuan Lokasi Pendirian Gudang', in. Available at: https://api.semanticscholar.org/CorpusID:169053275.
- Yang, L. et al. (2022) 'Autonomous environment-adaptive microrobot swarm navigation enabled by deep learning-based real-time distribution planning', Nature Machine Intelligence, 4, pp. 480–493. Available at: https://api.semanticscholar.org/CorpusID:248844096.
- Zhou, G. *et al.* (2024) 'Two-echelon time-dependent vehicle routing problem with simultaneous pickup and delivery and satellite synchronization', *Computers & Operations Research*, p. 106600.
- Zhu, Y., Chen, Y. and Fu, Z.-H. (2022) 'Knowledge-guided two-stage memetic search for the pickup and delivery traveling salesman problem with FIFO loading', *Knowledge-Based Systems*, 242, p. 108332.