Operations Research and Engineering Letters
Vol. 4, No. 1, 2025, pp. 20-27
ISSN: 2812-9318

A Literature Review of Multiple-Criteria Decision-Making Methods for Facility Location Selection

Stefan Koprivica [1], Milica Koprivica [2]
[1] Faculty of Civil Engineering, Union Nikola Tesla University, Belgrade, Serbia,
e-mail: stefankoprivica@unionnikolatesla.edu.rs
[2] Faculty of Civil Engineering, University of Belgrade, Belgrade, Republic of Serbia, e-mail: mbendic@grf.bg.ac.rs

Article Info

Article history:

Received November 13, 2025
Revised December 30, 2025
Accepted January 14, 2026

Keywords:

Location selection,
Site selection,
Facility,
Literature review,
Multi-criteria decision-making,
Construction.

ABSTRACT

Determining the optimal facility location presents a complex challenge that has received substantial scholarly attention in recent decades. Researchers have applied a range of techniques to address this issue across diverse facility location scenarios. Multiple-criteria decision-making (MCDM) has emerged as a key approach for evaluating and selecting optimal alternatives. This review examines the application of MCDM methods in facility location selection. A total of 54 articles were identified through online journal database searches and categorized by author, publication year, addressed problem, applied methods, and application area. The findings indicate that facility location selection is well-suited to MCDM approaches. The most frequently utilized methods include the Analytic Hierarchy Process (AHP), Technique for Order Preference by Similarity to Ideal Solution (TOPSIS), Fuzzy AHP, Preference Ranking Organization Method for Enrichment of Evaluations (PROMETHEE), and Weighted Aggregated Sum Product Assessment (WASPAS). Furthermore, the integration of Geographic Information Systems (GIS) with MCDM methods is prevalent in facility site selection.

Corresponding Author:

Stefan Koprivica,
Faculty of Civil Engineering, Union Nikola Tesla University, Belgrade, Serbia
Email: stefankoprivica@unionnikolatesla.edu.rs

1. Introduction

The central question this paper addresses is: How can multiple-criteria decision-making (MCDM) methods be optimized for selecting facility locations across various industries? Optimal facility location selection remains a central challenge in operations research. This problem involves determining the placement of a new facility to optimize factors such as costs, profits, travel distance, service quality, waiting time, coverage, and market share (Farahani et al., 2010; Rai, 2026). Suitable locations are broadly applicable across industries, including logistics, manufacturing, energy, retail, waste management, wind and solar farms, logistics centers, manufacturing plants, shopping centers, and landfills.

Prior research has used a variety of techniques to address challenges in facility location selection. Multiple-criteria decision-making (MCDM) serves as a comprehensive tool for evaluating and selecting optimal alternatives (Ullah et al., 2026). The purpose of this article is to review the application of MCDM techniques and approaches in the field of facility location selection. An additional objective is to demonstrate problem-solving using different MCDM methods under conditions of uncertainty by integrating various engineering disciplines (Basuri et al., 2026; Fujita et al., 2026). However, a noticeable gap in the current

body of knowledge is the lack of a clear understanding of how MCDM methods can be tailored to accommodate industry-specific requirements. This gap raises the following specific question: How can MCDM applications be refined to better address the specialized needs of diverse industries in facility location selection? Addressing this question is crucial for advancing the practical application of MCDM techniques.

2. Methodology

This study reviews the literature on the use of MCDM methods in facility location selection. Articles were identified through searches in online journal databases, specifically Google Scholar and the Google search engine. The searches employed keywords such as MCDM, location selection, and site selection. Additional search combinations included: MCDM + location + selection, MCDM + site + selection, MCDM + location + selection, MCDM + facility, and MCDM + construction. Articles considered for inclusion were those published between 2010 and 2023. We applied time filters to ensure we selected up-to-date research, focusing on studies from the last decade. Articles that did not address the application of MCDM in facility location selection or were not peer-reviewed were excluded. This rigorous filtering process ensures that only the most relevant and high-quality studies are included in this review.

Fifty-four articles were found by searching online journal databases. They were classified by author(s) and year, applied methods, and application area and scope.

3. Results and Discussion

Figure 1 illustrates the distribution of papers by year of publication. The number of papers published on this topic fluctuates annually, with no discernible trend.

Among the most prominent authors (Figure 2) in the field of facility location selection are Dragan Pamučar, who, as author and co-author, was represented in 9 papers (Badi et al., 2021; Biswas & Pamučar, 2020; Božanić et al., 2016; Gigović et al., 2017; Pamučar et al., 2017; Pamučar et al. 2018; Pamučar & Božanić, 2019; Stević et al., 2018; Yazdani et al., 2020) and Edmundas Kazimieras Zavadskas with four papers (Turskis & Zavadskas, 2010; Stević et al., 2018; Zolfani et al., 2013; Turskis et al., 2015). Then follow Darko Božanić (Božanić et al., 2016; Gigović et al., 2017; Pamučar & Božanić, 2019), Sarfaraz Hashemkhani Zolfani (Zolfani et al., 2013; Petrović et al., 2023; Torkayesh et al., 2021), and Ljubomir Gigović (Badi et al., 2021; Gigović et al., 2017; Pamučar et al., 2017) with three papers each.

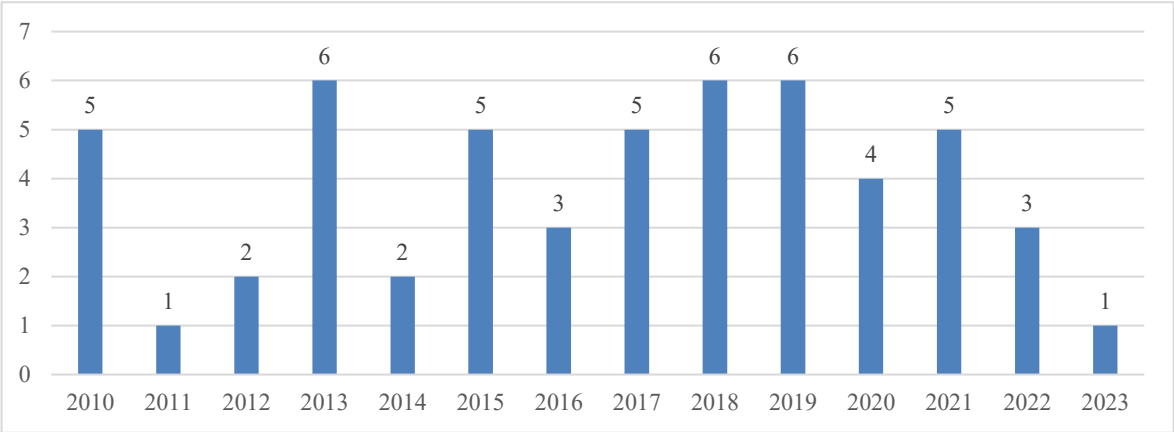

Figure 1. Distribution of all papers by year of publication.

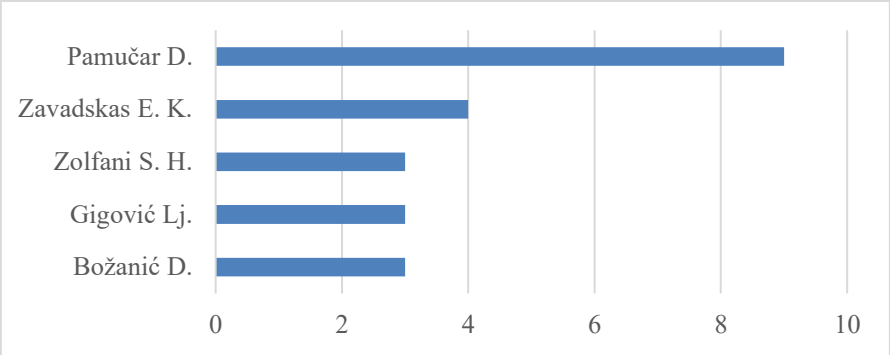

Figure 2. The most prominent authors in the field of facility location selection.

The most critical area of application of the MCDM method (Figure 3) is in the field of Energy, with 18 papers (Al Garni & Awasthi, 2017; Badi et al., 2021; Díaz-Cuevas et al., 2018; Genç et al., 2021; Gigović et al., 2017; Guler & Yomralioglu, 2020; Guo & Zhao, 2015; Hasanzadeh et al., 2013; Ioannou et al., 2018; Jozaghi et al., 2018; Kaya et al., 2020; Latinopoulos & Kechagia, 2015; Pamučar et al., 2017; Sánchez-Lozano et al., 2016; Uyan, 2013;Wang et al., 2018; Wang et al., 2022; Xuan et al., 2022). In this application area, most problems concern selecting the most suitable site for wind and solar farms.

Ten papers concern logistics and the selection of the most desirable logistics centre location (El-Araby et al., 2022; Kuo, 2011; Mihajlović et al., 2019; Pamucar et al., 2018; Pamučar & Božanić, 2019; Rao et al., 2015; Turskis & Zavadskas, 2010; Yazdani et al., 2020; Żak & Węgliński, 2014; Zečević et al., 2017). Waste management and selecting the most appropriate landfill site are well-addressed problems with eight papers (De Feo & De Gisi, 2010; Liu et al., 2014; Makan et al., 2012; Kharat et al., 2016; Şener et al., 2010; Petrović et al., 2023; Torkayesh et al., 2021; Alkaradaghi et al., 2019). In addition, five papers were written on retail and shopping centres (Erdin & Akbaş, 2019; Önüt et al., 2010; Roig-Tierno et al., 2013; Turskis et al., 2015; Zolfani et al., 2013) and four papers concerning the location of manufacturing plants (Athawale et al., 2012; Mousavi et al., 2013; Ray et al., 2015; Ulutaş & Karakuş, 2021). Additionally, the location selection for hotel construction, infrastructure, casinos, higher education institutions, the military, corporate relocation, and housing is analyzed (Biswas & Pamučar, 2020; Božanić et al., 2016; Haddad et al., 2019; Ishizaka et al., 2013; Marović & Hanak, 2017; Mohajeri & Amin, 2010; Popovic et al., 2019; Stević et al., 2018; Ulucan, 2021).

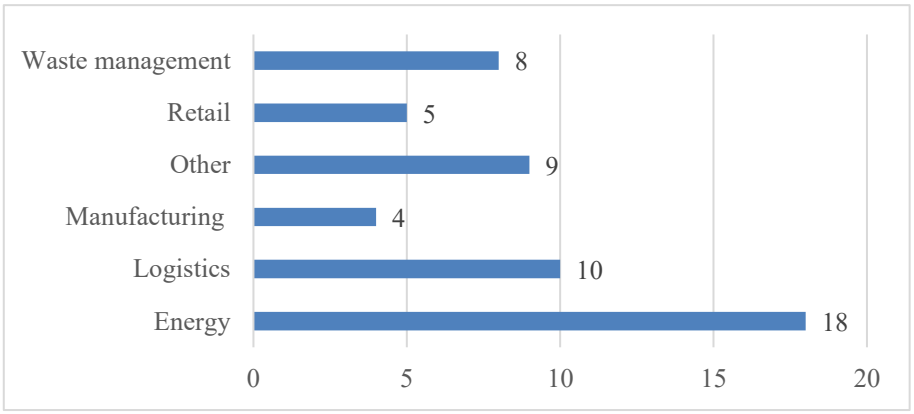

Figure 3. Distribution of all papers by application area.

The most preferred MCDM methods for facility location selection are shown in Figure 4. These techniques can be grouped into conceptual families based on their underlying logic, providing an easy classification for understanding and application. Pairwise comparison methods, such as the Analytic Hierarchy Process (AHP) and Analytic Network Process (ANP), are widely used. Outranking methods, such as the Technique for Order Preference by Similarity to Ideal Solution (TOPSIS), Preference Ranking Organization Method for Enrichment of evaluations (PROMETHEE), and VIšekriterijumska optimizacija i KOmpromisno Rešenje (VIKOR), are useful in scenarios that require complex evaluations. Other notable

methods include Fuzzy AHP, Fuzzy TOPSIS, and Geographic Information Systems (GIS) integration, which enhance decision-making with additional layers. Additionally, the Weighted Aggregated Sum Product Assessment (WASPAS), Decision Making Trial and Evaluation Laboratory (DEMATEL), Stepwise Weight Assessment Ratio Analysis (SWARA), Best-Worst Method (BWM), and Full Consistency Method (FUCOM) are employed for specific problem-solving approaches. This categorization reduces cognitive load and helps readers navigate the available methods efficiently.

AHP is the most common MCDM method and was used in 25 out of 54 papers (Al Garni & Awasthi, 2017; Božanić et al., 2016; De Feo & De Gisi, 2010; Díaz-Cuevas et al., 2018; Guler & Yomralioglu, 2020; Haddad et al., 2019; Ioannou et al., 2018; Jozaghi et al., 2018; Kaya et al., 2020; Kharat et al., 2016; Latinopoulos & Kechagia, 2015; Makan et al., 2012; Marović & Hanak, 2017; Mihajlović et al., 2019; Mohajeri & Amin, 2010; Mousavi et al., 2013; Önüt et al., 2010; Petrović et al., 2023; Roig-Tierno et al., 2013; Sánchez-Lozano et al., 2016; Şener et al., 2010; Turskis et al., 2015; Uyan, 2013; Wang et al., 2018; Wang et al., 2022).

TOPSIS is the second most represented MCDM method with 13 papers (El-Araby et al., 2022; Erdin & Akbaş, 2019; Guo & Zhao, 2015; Ishizaka et al., 2013; Jozaghi et al., 2018; Kharat et al., 2016; Kuo, 2011; Önüt et al., 2010; Rao et al., 2015; Ray et al., 2015; Sánchez-Lozano et al., 2016; Ulucan, 2021; Wang et al., 2018), followed by Fuzzy AHP with 9 (Božanić et al., 2016; Guler & Yomralioglu, 2020; Ioannou et al., 2018; Kharat et al., 2016; Önüt et al., 2010; Petrović et al., 2023; Sánchez-Lozano et al., 2016; Turskis et al., 2015; Wang et al., 2018). The selected literature used PROMETHEE (Athawale et al., 2012; Haddad et al., 2019; Ishizaka et al., 2013; Kaya et al., 2020; Makan et al., 2012; Marović & Hanak, 2017; Mousavi et al., 2013) and WASPAS (Mihajlović et al., 2019; Petrović et al., 2023; Stević et al., 2018; Turskis et al., 2015; Wang et al., 2022; Xuan et al., 2022; Zolfani et al., 2013) seven times.

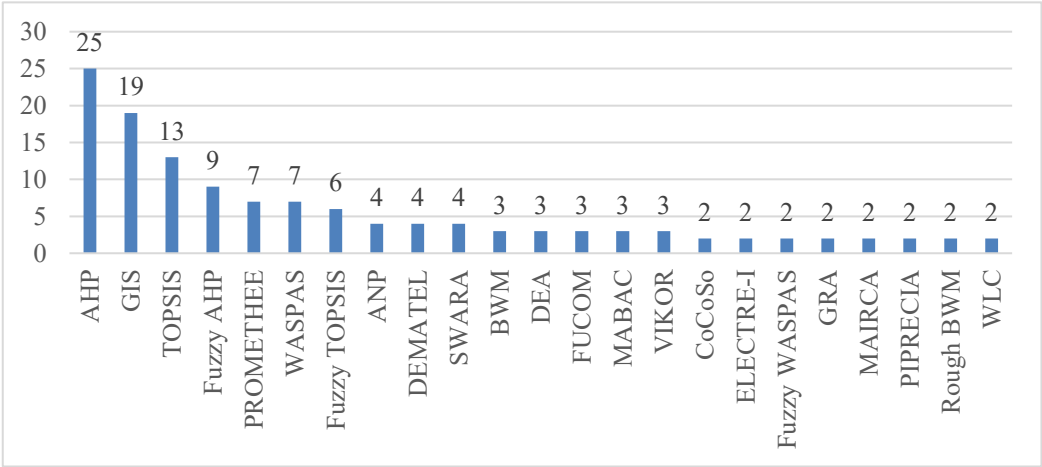

Figure 4. Most preferred methods implemented in literature.

In addition, the integrated application of Geographic Information Systems (GIS) with MCDM methods is widespread for facility site selection (Al Garni & Awasthi, 2017; Alkaradaghi et al., 2019; Badi et al., 2021; Díaz-Cuevas et al., 2018; Erdin & Akbaş, 2019; Genç et al., 2021; Gigović et al., 2017; Guler & Yomralioglu, 2020; Ioannou et al., 2018; Jozaghi et al., 2018; Kaya et al., 2020; Latinopoulos & Kechagia, 2015; Pamučar et al., 2017; Roig-Tierno et al., 2013; Sánchez-Lozano et al., 2016; Şener et al., 2010; Torkayesh et al., 2021; Ulutaş & Karakuş, 2021; Uyan, 2013). This synergy enhances decision quality by providing spatial analysis capabilities, which add a critical layer of geographic accuracy to the decision-making process. For instance, GIS can visually represent the spatial distribution of factors such as proximity to main roads or environmental impacts, which pure MCDM might overlook. Consequently, it allows stakeholders to gain clearer insights into potential site implications, making the pairing not just common but invaluable for enriched decision-making in facility location selection.

4. Conclusion

A review of articles published between 2010 and 2023 on the application of MCDM techniques for facility location selection leads to the following conclusions:

- The most frequently researched topics include site selection for wind and solar farms, logistics centers, manufacturing plants, shopping centers, and landfills.
- AHP, GIS, TOPSIS, Fuzzy AHP, PROMETHEE, and WASPAS are the primary methods employed to address facility location selection problems. Future research should examine the potential of integrating machine learning algorithms and big data analytics into facility location analysis, as these technologies promise greater precision and adaptability in decision-making. Moreover, incorporating real-time data from IoT (Internet of Things) devices could further enhance contextual awareness, providing dynamic updates and more responsive solutions. Such advancements could open a new frontier in MCDM applications, encouraging scholars to develop methodologies that can effectively handle more complex and varied data inputs.

References

Al Garni, H. Z., & Awasthi, A. (2017). Solar PV power plant site selection using a GIS-AHP based approach with application in Saudi Arabia. Applied energy, 206, 1225-1240.

Alkaradaghi, K., Ali, S. S., Al-Ansari, N., Laue, J., & Chabuk, A. (2019). Landfill site selection using MCDM methods and GIS in the Sulaimaniyah Governorate, Iraq. Sustainability, 11(17), 4530.

Athawale, V. M., Chatterjee, P., & Chakraborty, S. (2012). Decision making for facility location selection using PROMETHEE II method. International Journal of Industrial and Systems Engineering 1, 11(1-2), 16-30.

Badi, I., Pamučar, D., Gigović, L., & Tatomirović, S. (2021). Optimal site selection for sitting a solar park using a novel GIS-SWA'TEL model: A case study in Libya. International Journal of Green Energy, 18(4), 336-350.

Basuri, T., Gazi, K. H., Das, S. G., & Sankar Prasad Mondal. (2026). Ranking Higher Education Institutions Using Entropy–VIKOR with Generalized Pentagonal Intuitionistic Fuzzy Numbers. Journal of Contemporary Decision Science, 2(1), 64-83.

Biswas, S., & Pamučar, D. (2020). Facility location selection for b-schools in indian context: A multi-criteria group decision based analysis. Axioms, 9(3), 77.

Božanić, D. I., Pamučar, D. S., & Karović, S. M. (2016). Use of the fuzzy AHP-MABAC hybrid model in ranking potential locations for preparing laying-up positions. Vojnotehnicki glasnik/Military Technical Courier, 64(3), 705-729.

De Feo, G., & De Gisi, S. (2010). Using an innovative criteria weighting tool for stakeholders involvement to rank MSW facility sites with the AHP. Waste Management, 30(11), 2370-2382.

Díaz-Cuevas, P., Camarillo-Naranjo, J. M., & Pérez-Alcántara, J. P. (2018). Relational spatial database and multi-criteria decision methods for selecting optimum locations for photovoltaic power plants in the province of Seville (southern Spain). Clean Technologies and Environmental Policy, 20(8), 1889-1902.

El-Araby, A., Sabry, I., & El-Assal, A. (2022). A comparative study of using MCDM methods integrated with entropy weight method for evaluating facility location problem. Operational research in engineering sciences: theory and applications, 5(1), 121-138.

Erdin, C., & Akbaş, H. E. (2019). A comparative analysis of fuzzy TOPSIS and geographic information systems (GIS) for the location selection of shopping malls: a case study from Turkey. Sustainability, 11(14), 3837.

Farahani, R. Z., SteadieSeifi, M., & Asgari, N. (2010). Multiple criteria facility location problems: A survey. Applied mathematical modelling, 34(7), 1689-1709.

Fujita, T., Das, A. K., Mehmood, A., Das, S., & Duran, V. (2025). Decision Analytics Applications of the Relationship Between TreeSoft Graphs and ForestSoft Graphs. Applied Decision Analytics , 2(1), 73-92.

Genç, M. S., Karipoğlu, F., Koca, K., & Azgın, Ş. T. (2021). Suitable site selection for offshore wind farms in Turkey's seas: GIS-MCDM based approach. Earth Science Informatics, 14(3), 1213-1225.

Gigović, L., Pamučar, D., Božanić, D., & Ljubojević, S. (2017). Application of the GIS-DANP-MABAC multi-criteria model for selecting the location of wind farms: A case study of Vojvodina, Serbia. Renewable energy, 103, 501-521.

Guler, D., & Yomralioglu, T. (2020). Suitable location selection for the electric vehicle fast charging station with AHP and fuzzy AHP methods using GIS. Annals of GIS, 26(2), 169-189.

Guo, S., & Zhao, H. (2015). Optimal site selection of electric vehicle charging station by using fuzzy TOPSIS based on sustainability perspective. Applied Energy, 158, 390-402.

Haddad, M. J. M., Sanders, D., & Tewkesbury, G. (2019). Selecting a discrete Multiple Criteria Decision Making method to decide on a corporate relocation. Archives of Business Research, 7(5), 48-67.

Hasanzadeh, M., Danehkar, A., & Azizi, M. (2013). The application of Analytical Network Process to environmental prioritizing criteria for coastal oil jetties site selection in Persian Gulf coasts (Iran). Ocean & coastal management, 73, 136-144.

Ioannou, K., Tsantopoulos, G., Arabatzis, G., Andreopoulou, Z., & Zafeiriou, E. (2018). A spatial decision support system framework for the evaluation of biomass energy production locations: Case study in the regional unit of drama, Greece. Sustainability, 10(2), 531.

Ishizaka, A., Nemery, P., & Lidouh, K. (2013). Location selection for the construction of a casino in the Greater London region: a triple multi-criteria approach. Tourism Management, 34, 211-220.

Jozaghi, A., Alizadeh, B., Hatami, M., Flood, I., Khorrami, M., Khodaei, N., & Ghasemi Tousi, E. (2018). A comparative study of the AHP and TOPSIS techniques for dam site selection using GIS: A case study of Sistan and Baluchestan Province, Iran. Geosciences, 8(12), 494.

Kaya, Ö., Tortum, A., Alemdar, K. D., & Çodur, M. Y. (2020). Site selection for EVCS in Istanbul by GIS and multi-criteria decision-making. Transportation Research Part D: Transport and Environment, 80, 102271.

Kharat, M. G., Kamble, S. J., Raut, R. D., Kamble, S. S., & Dhume, S. M. (2016). Modeling landfill site selection using an integrated fuzzy MCDM approach. Modeling Earth Systems and Environment, 2, 1-16.

Kuo, M. S. (2011). Optimal location selection for an international distribution center by using a new hybrid method. Expert Systems with Applications, 38(6), 7208-7221.

Latinopoulos, D., & Kechagia, K. (2015). A GIS-based multi-criteria evaluation for wind farm site selection. A regional scale application in Greece. Renewable Energy, 78, 550-560.

Liu, H. C., You, J. X., Fan, X. J., & Chen, Y. Z. (2014). Site selection in waste management by the VIKOR method using linguistic assessment. Applied Soft Computing, 21, 453-461.

Makan, A., Malamis, D., Assobhei, O., Loizidou, M., & Mountadar, M. (2012). Multi-criteria decision analysis for the selection of the most suitable landfill site: case of Azemmour, Morocco. International Journal of Management Science and Engineering Management, 7(2), 96-109.

Marović, I., & Hanak, T. (2017). Selection of adequate site location during early stages of construction project management: A multi-criteria decision analysis approach. In IOP Conference Series: Materials Science and Engineering (Vol. 251, No. 1, p. 012044). IOP Publishing.

Mihajlović, J., Rajković, P., Petrović, G., & Ćirić, D. (2019). The selection of the logistics distribution center location based on MCDM methodology in southern and eastern region in Serbia. Operational Research in Engineering Sciences: Theory and Applications, 2(2), 72-85.

Mohajeri, N., & Amin, G. R. (2010). Railway station site selection using analytical hierarchy process and data envelopment analysis. Computers & Industrial Engineering, 59(1), 107-114.

Mousavi, S. M., Tavakkoli-Moghaddam, R., Heydar, M., & Ebrahimnejad, S. (2013). Multi-criteria decision making for plant location selection: an integrated Delphi–AHP–PROMETHEE methodology. Arabian Journal for Science and Engineering, 38, 1255-1268.

Önüt, S., Efendigil, T., & Kara, S. S. (2010). A combined fuzzy MCDM approach for selecting shopping center site: An example from Istanbul, Turkey. Expert systems with applications, 37(3), 1973-1980.

Pamucar, D. S., Pejcic Tarle, S., & Parezanovic, T. (2018). New hybrid multi-criteria decision-making DEMATELMAIRCA model: sustainable selection of a location for the development of multimodal logistics centre. Economic research-Ekonomska istraživanja, 31(1), 1641-1665.

Pamučar, D., & Božanić, D. (2019). Selection of a location for the development of multimodal logistics center: Application of single-valued neutrosophic MABAC model. Infinite Study.

Pamučar, D., Gigović, L., Bajić, Z., & Janošević, M. (2017). Location selection for wind farms using GIS multi-criteria hybrid model: An approach based on fuzzy and rough numbers. Sustainability, 9(8), 1315.

Petrović, G., Mihajlović, J., Marković, D., Hashemkhani Zolfani, S., & Madić, M. (2023). Comparison of Aggregation Operators in the Group Decision-Making Process: A Real Case Study of Location Selection Problem. Sustainability, 15(10), 8229.

Popovic, G., Stanujkic, D., Brzakovic, M., & Karabasevic, D. (2019). A multiple-criteria decision-making model for the selection of a hotel location. Land use policy, 84, 49-58.

Rai, B. (2025). Interpretable Extreme Gradient Boosting Models for Multi-Class Stock Movement Prediction Using Technical Indicators. Applied Decision Analytics, 2(1), 124-140.

Rao, C., Goh, M., Zhao, Y., & Zheng, J. (2015). Location selection of city logistics centers under sustainability. Transportation Research Part D: Transport and Environment, 36, 29-44.

Ray, A., De, A., & Dan, P. K. (2015). Facility location selection using complete and partial ranking MCDM methods. International Journal of Industrial and Systems Engineering, 19(2), 262-276.

Roig-Tierno, N., Baviera-Puig, A., Buitrago-Vera, J., & Mas-Verdu, F. (2013). The retail site location decision process using GIS and the analytical hierarchy process. Applied Geography, 40, 191-198.

Sánchez-Lozano, J. M., García-Cascales, M. S., & Lamata, M. T. (2016). GIS-based onshore wind farm site selection using Fuzzy Multi-Criteria Decision Making methods. Evaluating the case of Southeastern Spain. Applied Energy, 171, 86-102.

Şener, Ş., Şener, E., Nas, B., & Karagüzel, R. (2010). Combining AHP with GIS for landfill site selection: a case study in the Lake Beyşehir catchment area (Konya, Turkey). Waste management, 30(11), 2037-2046.

Stević, Ž., Pamučar, D., Subotić, M., Antuchevičiene, J., & Zavadskas, E. K. (2018). The location selection for roundabout construction using Rough BWM-Rough WASPAS approach based on a new Rough Hamy aggregator. Sustainability, 10(8), 2817.

Torkayesh, A. E., Zolfani, S. H., Kahvand, M., & Khazaelpour, P. (2021). Landfill location selection for healthcare waste of urban areas using hybrid BWM-grey MARCOS model based on GIS. Sustainable Cities and Society, 67, 102712.

Turskis, Z., & Zavadskas, E. K. (2010). A new fuzzy additive ratio assessment method (ARAS-F). Case study: The analysis of fuzzy multiple criteria in order to select the logistic centers location. Transport, 25(4), 423-432.

Turskis, Z., Zavadskas, E. K., Antuchevičienė, J., & Kosareva, N. (2015). A hybrid model based on fuzzy AHP and fuzzy WASPAS for construction site selection.

Ullah, K., Rehman, N., & Ali, A. (2026). Business-oriented Stock Market Decision Analysis Using Circular Complex Picture Fuzzy Sets and Advanced MCDM Based on the CRITIC–WASPAS Method. Journal of Contemporary Decision Science, 2(1), 1-54.

Ulucan, E. (2021). The hotel site selection: Determining locational factors by Fuzzy TOPSIS. European Journal of Tourism, Hospitality and Recreation, 10(3), 213-228.

Ulutaş, A., & Karakuş, C. (2021). Location selection for a textile manufacturing facility with GIS based on hybrid MCDM approach. Industria textila, 72(2).

Uyan, M. (2013). GIS-based solar farms site selection using analytic hierarchy process (AHP) in Karapinar region, Konya/Turkey. Renewable and Sustainable Energy Reviews, 28, 11-17.

Wang, C. N., Nguyen, N. A. T., & Dang, T. T. (2022). Offshore wind power station (OWPS) site selection using a two-stage MCDM-based spherical fuzzy set approach. Scientific reports, 12(1), 4260.

Wang, C. N., Nguyen, V. T., Thai, H. T. N., & Duong, D. H. (2018). Multi-criteria decision making (MCDM) approaches for solar power plant location selection in Viet Nam. Energies, 11(6), 1504.

Xuan, H. A., Trinh, V. V., Techato, K., & Phoungthong, K. (2022). Use of hybrid MCDM methods for site location of solar-powered hydrogen production plants in Uzbekistan. Sustainable Energy Technologies and Assessments, 52, 101979.

Yazdani, M., Chatterjee, P., Pamučar, D., & Chakraborty, S. (2020). Development of an integrated decision making model for location selection of logistics centers in the Spanish autonomous communities. Expert Systems with Applications, 148, 113208.

Żak, J., & Węgliński, S. (2014). The selection of the logistics center location based on MCDM/A methodology. Transportation Research Procedia, 3, 555-564.

Zečević, S., Tadić, S., & Krstić, M. (2017). Intermodal transport terminal location selection using a novel hybrid MCDM model. International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, 25(06), 853-876.

Zolfani, S. H., Aghdaie, M. H., Derakhti, A., Zavadskas, E. K., & Varzandeh, M. H. M. (2013). Decision making on business issues with foresight perspective; an application of new hybrid MCDM model in shopping mall locating. Expert systems with applications, 40(17), 7111-7121.