ÇOK KRİTERLİ KARAR VERME YÖNTEMLERİ VE FİRMA PERFORMANSI

Yazarlar
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KISALTMALAR LİSTESİ

AB : Avrupa Birliği

AGV : Automatic Guided Vehicles

AHP : Analytical Hierarchy Process

ANP : Analytic Network process

ARAS : Additive Ratio Assessment

AR-GE : Araştırma – Geliştirme

ASEAN : Association of Southeast Asian Nations

BİST : Borsa İstanbul

BM : Birleşmiş Milletler

BWM : Best-Worst Method

CCSD : Correlation Coefficient and the Standard Deviation

CI : Consistency Index

CILOS : The Criteria Impact Loss

CoCoSo : COmbined COmpromise SOlution

CODAS : Combinative Distance-based Assessment

COPRAS : Complex Proportional Assessment

CP : Compromise Programming

CR : Consistency Ratio

CRADIS : Compromise Ranking of Alternatives from Distance to Ideal Solution

CRITIC : Criteria Importance Through Intercriteria Correlation

ÇAKV : Çok Amaçlı Karar Verme

ÇBÖ : Çok Boyutlu Ölçekleme

ÇKKV : Çok Kriterli Karar Verme

ÇNKV : Çok Nitelikli Karar Verme

DEMATEL : The Decision Making Trial and Evaluation Laboratory

EBIT : Earnings Before Interest and Taxes

EDAS : Evaluation based on Distance from Average Solution

ELECTRE : Elimination Et Choix Traduisant la Realité

EWP : Exponentially Weighted Product

F/K : Fiyat/Kazanç

FUCA : Faire Un Choix Adéqua

FUCOM : Full Consistency Method

FVÖK : Faiz ve Vergi Öncesi Kâr

GIS : Geographic Information System

GİA : Gri İlişkisel Analiz

GRA : Grey Relational Analysis

IDOCRIW : Integrated Determination of Objective CRIteria Weights

HBK : Hisse Başına Kazanç

IT : Information Technology

KOBİ : Küçük ve Orta Büyüklükteki İşletmeler

LBWA : Level Based Weight Assessment

LINMAP : Linear Programming Technique for Multidimensional Preference Analysis

LMAW : Logarithm Methodology of Additive Weights

MABAC : Multi-Attributive Border Approximation Area Comparison

MACBETH : Measuring Attractiveness by a Categorical Based Evaluation TecHnique

MADM : Multiple Attribute Decision-Making

MAIRCA : Multi Attributive Ideal-Real Comparative Analysis

MARCOS : Measurement of Alternatives and Ranking according to COmpromise

MARICA : Multi Attributive Real-Ideal Comparative Analysis

MAUT : Multi Attribute Utility Theory

MCDM : Multi-Criteria Decision Making

MEREC : MEthod based on the Removal Effects of Criteria

MODM : Multi-Objective Decision Making

MOORA : Multi-Objective Optimization on the basis of Ratio Analysis

MOOSRA : Multi-Objective Optimization on the basis of Simple Ratio Analysis

MOPA : Multi Objective Perfomance Analysis

NDA : Negative Distance from Average

OECD : Organisation for Economic Co-operation and Development

OPEC : Organization of Petroleum Exporting Countries

OWA : Ordered Weighted Average

pb : para birimi

PDA : Positive Distance from Average

PD/DD : Piyasa Değeri / Defter Değer

PIPRECIA : PIvot Pairwise RElative Criteria Importance Assessment Extended

PIV : Proximity Indexed Value

PROMETHEE : Preference Ranking Organization METHod for Enrichment Evolution

PSI : Preference Selection Index

QUALIFLEX : QUALItative FLEXible

RAPS : Ranking Alternatives by Perimeter Similarity

RI : Random Index

ROV : Range of Value

SAW : Simple Additive Weighting

SD : Standart Deviation

SECA : Simultaneous Evaluation of Criteria and Alternatives

SMAA : Stochastic Multicriteria Acceptability Analysis

SPK : Sermaye Piyasası Kurulu

SWARA : Stepwise Weight Assessment Ratio Analysis

SWOT : Strengths, Weaknesses, Opportunities, Threats

TBA : Temel Bileşenler Analizi

TDK : Türk Dil Kurumu

TODIM : Tomada de Decisão Iterativa Multicritério

TOPSIS : Technique for Order of Preference by Similarity to Ideal Solution

UTA : UTility Additive

UTADIS : UTilities Additives DIScriminantes

vb. : ve benzeri

vd. : ve diğerleri

VIKOR : VIse Kriterijumska Optimizacija I Kompromisno Resenje

VZA : Veri Zarflama Analizi

WASPAS : Weighted Aggregated Sum Product Assessment

WPM : Weighted Product Model

WSA : Weighted Sum Approach

WSM : Weighted Sum Model

XGIDA : BİST Gıda Endeksi

XKAGT : BİST Orman Kâğıt Basım Endeksi

XKMYA : BİST Kimya Petrol Plastik Endeksi

XKURY : BİST Kurumsal Yönetim Endeksi

XMANA : BİST Metal Ana Endeksi

XMESY : BİST Metal Eşya Makine Endeksi

XTAST : BİST Taş Toprak Endeksi

XTEKS : BİST Tekstil Deri Endeksi

XTRZM : BİST Turizm Endeksi

XUSIN : BİST Sınai Endeksi

XUSRD : BİST Kurumsal Sürdürülebilirlik Endeksi

XYORT : BİST Yatırım Ortaklığı Endeksi

YSA : Yapay Sinir Ağları

İÇİNDEKİLER

KAYNAKÇA

Abacıoğlu, S. & Ünal, İ. H.: "Veri Zarflama ve Sıralı Lojistik Regresyon Analizi ile Şirketlerin Etkinliklerinin Belirlenmesi: Dokuma, Giyim Eşyası ve Deri Sektörü Üzerine Bir Uygulama", **Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi,** Vol.4, No:12, 2017, pp. 1-19.

Abacıoğlu, S. & Ayan, B.: "Investigating the Relationship Between Student Satisfaciton Criteria: A Hybrid Model Based on DEMATEL and Canonical Correlation Analysis", **İşletme Ekonomi ve Yönetim Araştırmaları Dergisi,** Vol.4, No:2, 2021, pp. 277-293.

Abadi, S., Huda, M., Jasmi, K. A., Basiron, B., Amrullah, M. & Maseleno, A.: "Hazard Level of Vehicle Smoke by Fuzzy Multiple Attribute Decision Making with Simple Additive Weighting Method", **International Journal of Pharmaceutical Research,** Vol.10, No:4, 2018, pp. 58-71.

Abdel-Basset, M., Ding, W., Mohamed, R. & Metawa, N.: "An Integrated Plithogenic MCDM Approach for Financial Performance Evaluation of Manufacturing Industries, **Risk Management,** 22, 2020, pp. 192-218.

Abdel-Basset, M., Mohamed, R., Elhoseny, M., Abouhawash, M., Nam, Y. & AbdelAziz, N. M.: "Efficient MCDM Model for Evaluating the Performance of Commercial Banks: A Case Study", **Computers, Materials & Continua,** Vol.67, No:3, 2021, pp. 2729-2746.

Adar, T. & Delice, E. K.: "New Integrated Approaches Based on MC-HFLTS for Healthcare Waste Treatment Technology Selection", **Journal of Enterprise Information Management,** Vol.32, No:4, 2019, pp. 688-711.

Aduba, J. J.: "Framework for Firm-Level Performance Evaluations Using Multivariate Linear Correlation with MCDM Methods: Application to Japanese Firms", **Asia-Pacific Journal of Regional Science,** Vol.6, No:1, 2022, pp. 1-44.

Afrifa, G.A.: "Net Working Capital, Cash Flow and Performance of UK SMEs." **Review of Accounting and Finance,** Vol.15, No:1, 2016, pp. 21-44.

Ajith, S., Sharma, S. V., Bharath, N., Babu, J. & Balasubramanyan, R.: "A Decision Support System for Materials Selection Using Proximity Indexed Value Method", **Materials Today: Proceedings,** 66, 2022, pp. 2431-2437.

Akbulut, O. Y.: "Finansal Performans ile Pay Senedi Getirisi Arasındaki İlişkinin Bütünleşik CRITIC ve MABAC ÇKKV Teknikleriyle Ölçülmesi: Borsa İstanbul Çimento Sektörü Firmaları Üzerine Ampirik Bir Uygulama", **Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü Dergisi,** No:40, 2020, pp. 471-488.

Akgüç, Ö.: **Mali Tablolar Analizi,** 2011, Genişletilmiş 14. Baskı, İstanbul: Avcıol Basım Yayın.

Akgül, Y.: "Borsa İstanbul'da İşlem Gören Ticari Bankaların Finansal Performansının Bütünleşik CRITIC CoCoSo Modeliyle Analizi", **Ekonomi ve Finansal Araştırmalar Dergisi,** Vol.3, No:2, 2021, pp. 71-90.

Aktan, C.C.: **Kurumsal Şirket Yönetimi,** 2006, SPK Kurumsal Araştırmalar Serisi, Ankara, No:4, Yayın No:196.

Alamoudi, M. H. & Bafail, O. A.: "BWM–RAPS Approach for Evaluating and Ranking Banking Sector Companies Based on Their Financial Indicators in the Saudi Stock Market", **Journal of Risk and Financial Management,** Vol.15, No:10, 2022, 467.

Alao, M. A., Popoola, O. M. & Ayodele, T. R.: "Selection of Waste-to-Energy Technology for Distributed Generation Using IDOCRIW-Weighted TOPSIS Method: A Case Study of the City of Johannesburg, South Africa", **Renewable Energy,** Vol.178, 2021, pp. 162-183.

Alidrisi, H., Aydin, M. E., Bafail, A. O., Abdulal, R. & Karuvatt, S. A.: "Monitoring the Performance of Petrochemical Organizations in Saudi Arabia Using Data Envelopment Analysis", **Mathematics,** Vol.7, No:6, 2019, 519.

Alinezhad, A. & Khalili, J.: **New Methods and Applications in Multiple Attribute Decision Making (MADM),** 2019, International Series in Operations Research & Management Science, Springer, Vol.277.

Alkan, N. & Kahraman, C.: "Circular Intuitionistic Fuzzy TOPSIS Method: Pandemic Hospital Location Selection", **Journal of Intelligent & Fuzzy Systems,** Vol.42, No:1, 2022, pp. 295-316.

Alptekin, N.: "Analitik Ağ Süreci Yaklaşımı ile Türkiye'de Beyaz Eşya Sektörünün Pazar Payı Tahmini", **Doğuş Üniversitesi Dergisi,** C.1, No:1, 2010, s. 18-27.

Ananda, J. & Herath, G.: "A Critical Review of Multi-Criteria Decision Making Methods with Special Reference to Forest Management and Planning", **Ecological Economics,** No:68, 2009, pp. 2535-2548.

Angeline, L. A., Mystica, A. R., Mary, S. F. J. & Merlin, M. M. M.: "A New Integrated Approach of Combined FCM and CODAS Method in Interval Valued Intuitionistic Fuzzy Cognitive Map for Multi Criteria Decision Making to Evaluate and Prioritize the Branded Mobile Phones", **Malaya J. Mat.(MJM),** 8, 2020, pp. 230-234.

Arslan, H. M.: "CRITIC-TOPSIS Yöntemi ile Teknoparklarda Faaliyet Gösteren İşletmelerin Finansal Performanslarının Değerlendirilmesi", **Düzce Üniversitesi Sosyal Bilimler Dergisi,** Vol.9, No:2, 2019, pp. 144-153.

Asante, D., He, Z., Adjei, N. O., & Asante, B.: "Exploring the Barriers to Renewable Energy Adoption Utilising MULTIMOORA-EDAS Method", **Energy Policy,** 2020, 142, 111479.

Asikin, B., Saudi, M.H. & Roespinoedji, R.: "Influence of Return on Assets (ROA), Return on Equity (ROE), and Earning Per Share (EPS) of Stock Price (Survey on Corporate Advertising, Printing, and the Media listed on the Indonesia Stock Exchange Period 2015-2019)", **Solid State Technology,** Vol.63, No:3, 2020, pp. 3941-3955.

Aslan, T.: "Futbol Kulüplerinin Finansal Performansının Oran Yöntemiyle Analizi", **Muhasebe ve Vergi Uygulamaları Dergisi,** C.11, No:3, 2018, s. 349-362.

Astanti, R., Mbolla, S. & Ai, T.: "Raw Material Supplier Selection in A Glove Manufacturing: Application of AHP and Fuzzy AHP", **Decision Science Letters,** Vol.9, No:3, 2020, pp. 291-312.

Atukalp, M. E.: "Özel Sermayeli Mevduat Bankalarının Finansal Performanslarının İncelenmesi: Türkiye Örneği", **Global Journal of Economics and Business Studies,** Vol.7, No:14, 2019, pp. 38-52.

Ayan, B. & Abacıoğlu, S.: "CRITIC Temelli COPRAS ve EDAS Yöntemleri ile Finansal Performans Analizi". **Çok Kriterli Karar Verme ile Güncel Uygulamalar,** (ed.) E. Fendoğlu, Gazi Kitabevi, Ankara, 2021, s.125-142.

Ayçin, E.: "BIST Menkul Kıymet Yatırım Ortaklıkları Endeksinde (XYORT) Yer Alan İşletmelerin Finansal Performanslarının Entropi ve Gri İlişkisel Analiz Bütünleşik Yaklaşımı ile Değerlendirilmesi", **Dokuz Eylül Üniversitesi İktisadi İdari Bilimler Fakültesi Dergisi,** Vol.33, No:2, 2018, pp. 595-622.

Ayçin, E.: **Çok Kriterli Karar Verme Bilgisayar Uygulamalı Çözümler,** 2020, 2. Baskı, Ankara: Nobel Yayın.

Ayçin, E. & Güçlü, P.: "BIST Ticaret Endeksinde Yer Alan İşletmelerin Finansal Performanslarının Entropi ve MAIRCA Yöntemleri ile Değerlendirilmesi", **Muhasebe ve Finansman Dergisi,** 85, 2020, pp. 287-312.

Aydın, Y.: "A Hybrid Multi-Criteria Decision Making (MCDM) Model Consisting of SD and COPRAS Methods in Performance Evaluation of Foreign Deposit Banks", **Equinox Journal of Economics Business and Political Studies,** Vol.7, No:2, 2020, pp. 160-176.

Aytekin, S. & Erol, A. F.: "Finansal Performans Kurumsal Sürdürülebilirlik Performansının Temel Belirleyicisi Midir? BIST Sürdürülebilirlik Endeksinde ARAS Yöntemi ile Bir Uygulama", **Uluslararası İktisadi ve İdari İncelemeler Dergisi,** 17. UİK Özel Sayısı, 2018, pp. 869-886.

Aytekin, A.: "Comparative Analysis of the Normalization Techniques in the Context of MCDM Problems", **Decision Making: Applications in Management and Engineering,** Vol.4, No:2, 2021, pp. 1-25.

Aytekin, A. & Orakçı, E.: "Spor Kulüplerinin Performanslarının Çok Kriterli Karar Verme ve Toplulaştırma Teknikleriyle İncelenmesi", **Ekonomi, Politika ve Finans Araştırmaları Dergisi,** C.5, No:2, 2020, s. 435-470.

Aytekin, A.: **Çok Kriterli Karar Analizi,** 2022, Ankara: Nobel Bilimsel.

Badi, I., Abdulshahed, A. M. & Shetwan, A.: "A Case Study of Supplier Selection for A Steelmaking Company in Libya by Using the Combinative Distance-Based Assessment (CODAS) Model", **Decision Making: Applications in Management and Engineering,** Vol.1 No:1, 2018, pp. 1-12.

Badi, I. & Kridish, M.: "Landfill Site Selection Using A Novel FUCOM-CODAS Model: A Case Study in Libya", **Scientific African,** 9, 2020.

Bai, C. & Sarkis, J.: "Integrating Sustainability into Supplier Selection: A Grey-Based TOPSIS Analysis", **Technological and Economic Development of Economy,** Vol.24, No:6, 2018, pp. 2202-2224.

Baizyldayeva, U.: "Multi-Criteria Decision Support Systems. Comparative Analysis", **Middle-East Journal of Scientific Research,** Vol.16, No:12, 2013, pp. 1725-1730.

Bakhat, R. & Rajaa, M.: "Risk Assessment of A Wind Turbine Using An AHP-MABAC Approach with Grey System Theory: A Case Study of Morocco", **Mathematical Problems in Engineering,** 2020, pp. 1-22.

Bakır, M., Akan, Ş., Kiracı, K., Karabasevic, D., Stanujkic, D. & Popovic, G.: "Multiple-Criteria Approach of the Operational Performance Evaluation in the Airline Industry: Evidence From the Emerging Markets", **Romanian Journal of Economic Forecasting,** Vol.23, No:2, 2020, pp. 149-172.

Balali, A., Valipour, A., Edwards, R. & Moehler, R.: "Ranking Effective Risks on Human Resources Threats in Natural Gas Supply Projects Using ANP-COPRAS Method: Case Study of Shiraz", **Reliability Engineering & System Safety,** 2021, 208, 107442.

Balki, M. K., Erdoğan, S., Aydın, S. & Sayın, C.: "The Optimization of Engine Operating Parameters via SWARA and ARAS Hybrid Method in A Small SI Engine Using Alternative Fuels", **Journal of Cleaner Production,** 258, 120685, 2020.

Ballestero, E., Pérez-Gladish, B. & Garcia-Bernabeu, A.: "The Ethical Financial Question and the MCDM Framework". **Social Responsible Investment,** (eds.) E. Ballestero, B. Pérez-Gladish & A. Garcia-Bernabeu, Springer, UK, 2015, pp. 3-22.

Bansal, R.: "A Comparative Analysis of the Financial Ratios of Selected Banks in the India for the Period of 2011-2014", **Research Journal of Finance and Accounting,** Vol.5, No:19, 2014, pp. 153-167.

Başaran, H. H. & Tarhan, İ.: "Investigation of Offshore Wind Characteristics for the Northwest of Türkiye Region by Using Multi-Criteria Decision-Making Method (MOORA)", **Results in Engineering,** 16, 2022, 100757.

Baušys, R., Juodagalvienė, B., Žiūrienė, R., Pankrašovaitė, I., Kamarauskas, J., Usovaitė, A. & Gaižauskas, D.: "The Residence Plot Selection Model for Family House in Vilnius by Neutrosophic WASPAS Method. Infinite Study", **International Journal of Strategic Property Management,** Vol.24, No:3, 2020, pp. 182-196.

Baydaş, M. & Eren, T.: "Finansal Performans Ölçümünde ÇKKV Yöntem Seçimi Problemine Objektif Bir Yaklaşım: Borsa İstanbul'da Bir Uygulama", **Eskişehir Osmangazi Üniversitesi İktisadi ve İdari Bilimler Dergisi,** Vol.16, No:3, 2021, pp. 664-687.

Baydaş, M. & Pamučar, D.: "Determining Objective Characteristics of MCDM Methods Under Uncertainty: An Exploration Study with Financial Data", **Mathematics,** Vol.10, No:7, 2022, 1115.

Bayram, E.: "Katılım Bankalarının Finansal Performans Analizi: CRITIC ve PROMETHEE Yaklaşımları", **Balkan Sosyal Bilimler Dergisi,** Vol.9, No:18, 2020, pp. 32-38.

Bayram, E.: "Türkiye'deki Özel Sermayeli Bankaların Finansal Performans Analizi: SWARA Ağırlıklı CODAS Yöntemi", **Karamanoğlu Mehmetbey Üniversitesi Sosyal ve Ekonomik Araştırmalar Dergisi,** C.24, No:43, 2022, pp. 992-1004.

Behzadian, M., Otaghsara, S.K., Yazdani, M. & Ignatius, J.: "A State-of The-Art Survey of TOPSIS Applications", **Expert Systems with Applications**, Vol.39, No:17, 2012, pp. 13051-13069.

Behzad, M., Zolfani, S. H., Pamucar, D., & Behzad, M.: "A Comparative Assessment of Solid Waste Management Performance in the Nordic Countries Based On BWM-E-DAS", **Journal of Cleaner Production**, 2020, 266, 122008.

Bekesiene, S., Vasiliauskas, A. V., Hošková-Mayerová, Š. & Vasilienė-Vasiliauskienė, V.: "Comprehensive Assessment of Distance Learning Modules by Fuzzy AHP-TOPSIS Method", **Mathematics,** Vol.9, No:4, 2021, 409.

Bigpara Hürriyet: https://www.hurriyet.com.tr/ekonomi/pladis-yonetim-kurulu-baskani-murat-ulker-22-fabrika-sattik-58-fabrikamiz-daha-var-41901689. Erişim Tarihi: 10.05.2023.

Bigpara Hürriyet: https://bigpara.hurriyet.com.tr/haberler/ekonomi-haberleri/tupras-ikinci-ceyrek-bilancosunu-acikladi_ID1463783/. Erişim Tarihi: 10.05.2023.

Bigpara Hürriyet: https://bigpara.hurriyet.com.tr/borsa/haber/corona-virus-o-sirketleri-pozitif-etkiledi_ID1460626/. Erişim Tarihi: 10.05.2023.

BİST: https://www.borsaistanbul.com/tr/sayfa/163/kurumsal-yonetim-endeksi. Erişim Tarihi: 20.05.2021.

BİST: https://www.borsaistanbul.com/tr/sayfa/165/bist-surdurulebilirlik-endeksi. Erişim Tarihi: 20.05.2021.

Biswas, S. & Anand, O. P.: "Logistics Competitiveness Index-Based Comparison of BRICS and G7 Countries: An Integrated PSI-PIV Approach", **IUP Journal of Supply Chain Management,** Vol.17, No:2, 2020, pp. 32-57.

Bojanic, D., Kovač, M., Bojanic, M. & Ristic, V.: "Multi-Criteria Decision-Making in A Defensive Operation of the Guided Anti-Tank Missile Battery: An Example of the Hybrid Model Fuzzy AHP-MABAC", **Decision Making: Applications in Management and Engineering,** Vol.1, No:1, 2018, pp. 51-66.

Boral, S., Howard, I., Chaturvedi, S. K., McKee, K. & Naikan, V. N. A.: "A Novel Hybrid Multi-Criteria Group Decision Making Approach for Failure Mode and Effect Analysis: An Essential Requirement for Sustainable Manufacturing", **Sustainable Production and Consumption,** 21, 2020, pp. 14-32.

Boyacı, A. Ç.: "Selection of Eco-Friendly Cities in Turkey via A Hybrid Hesitant Fuzzy Decision Making Approach", **Applied Soft Computing,** 89, 106090, 2020.

Božanić, D., Jurišić, D. & Erkić, D.: "LBWA–Z-MAIRCA Model Supporting Decision Making in the Army", **Operational Research in Engineering Sciences: Theory and Applications,** Vol.3, No.:2, 2020, pp. 87-110.

Brans, J. P. & Vincke, H.: "A Preference Ranking Organisation Method (The PROMETHEE Method) for Multiple Criteria Decision-Making", **Management Science,** Vol.31, No:6, 1985, pp. 647-656.

Brauers, W. & Zavadskas, E.K.: "The MOORA Method and Its Applications to Privatization in a Transition Economy", **Control and Cybernetics,** Vol.35, No:2, 2006, pp. 446-469.

Brauers, W. & Zavadskas, E.K.: "Robustness of the Multi-Objective MOORA Method with a Test for the Facilities Sector", **Technological and Economic Development of Economy Baltic Journal of Sustainability,** Vol.15, No:2, 2009, pp. 352-375.

Brauers, W. & Zavadskas, E.K.: "Project Management by MULTIMOORA as An Instrument for Transition Economies", Vol.16, No:1, 2010, pp. 5-24.

Brauers, W. K. M. & Zavadskas, E. K.: "MULTIMOORA Optimization Used to Decide on A Bank Loan to Buy Property", **Technological and Economic Development of Economy,** Vol.17, No:1, 2011, pp. 174-188.

Brauers, W. K. M., Baležentis, A. & Baležentis, T.: "European Union Member States Preparing for Europe 2020. An Application of the MULTIMOORA Method", **Technological and Economic Development of Economy,** Vol.18, No:4, 2012, pp. 567-587.

Brauers, W. & Zavadskas, E.K.: "Robustness of MULTIMOORA: A Method for Multi-Objective Optimization", **Informatica,** Vol.23, No:1, 2012, pp. 1-25.

Brauers, W. K. M., Kildienė, S., Zavadskas, E. K. & Kaklauskas, A.: "The Construction Sector in Twenty European Countries During the Recession 2008–2009–Country Ranking by MULTIMOORA", **International Journal of Strategic Property Management,** Vol.17, No:1, 2013, pp. 58-78.

Brigham, E.F. & Daves, P.R.: **Intermediate Financial Management,** 2018, 13th ed., Boston: Cengage.

Brigham, E.F. & Houston, J.F.: **Fundamentals of Financial Management,** 2018, 15th ed., Boston: Cengage.

Burak, S., Samanlıoğlu, F., & Ülker, D.: "Evaluation of Irrigation Methods in Söke Plain with HF-AHP-PROMETHEE II Hybrid MCDM Method", **Agricultural Water Management,** 271, 2022, 107810.

Büyüközkan, G. & Güler, M.: "Smart Watch Evaluation with Integrated Hesitant Fuzzy Linguistic SAW-ARAS Technique", **Measurement,** 153, 2020, 107353.

Büyüközkan, G., Mukul, E. & Kongar, E.: "Health Tourism Strategy Selection via SWOT Analysis and Integrated Hesitant Fuzzy Linguistic AHP-MABAC Approach", **Socio-Economic Planning Sciences,** 2021, 74, 100929.

Can, G. F. & Kıran, M. B.: "Occupational Health and Safety Performance Evaluation of Countries Based on MAIRCA", **International Journal of Intelligent Computing and Cybernetics,** Vol.13, No:1, 2020, pp. 1-24.

Čereška, A., Podvezko, V. & Zavadskas, E. K.: "Operating Characteristics Analysis of Rotor Systems Using MCDM Methods", **Studies in Informatics and Control,** Vol.25, No:1, 2016, pp. 59-68.

Čereška, A., Zavadskas, E. K., Cavallaro, F., Podvezko, V., Tetsman, I. & Grinbergiene, I.: "Sustainable Assessment of Aerosol Pollution Decrease Applying Multiple Attribute Decision-Making Methods", **Sustainability,** Vol.8, No:7, 2016, pp. 1-12.

Chakraborty, S. & Zavadskas, E. K.: "Applications of WASPAS Method in Manufacturing Decision Making", **Informatica,** Vol.25, No:1, 2014, pp. 1-20.

Chakraborty, S., Zavadskas, E. K. & Antucheviciene, J.: "Applications of WASPAS Method as A Multi-Criteria Decision-Making Tool", **Economic Computation and Economic Cybernetics Studies and Research,** Vol.49, No:1, 2015, pp. 5-22.

Chakraborty, S., Ghosh, S., Sarker, B. & Chakraborty, S.: "An Integrated Performance Evaluation Approach for the Indian International Airports", **Journal of Air Transport Management,** 2020, 88, 101876.

Chang, Y. H. & Yeh,, C. H.: "Evaluating Airline Competitiveness Using Multiattribute Decision Making", **Omega,** Vol.29, No:5, 2001, pp. 405-415.

Chang, M. Y., Cui, X., Liu, C. C. & Lai, Y. T.: "Evaluating the Criteria for Financial Holding Company Operating Ability Based on the DEMATEL Approach–the Case of Taiwan", **Economic Research-Ekonomska Istraživanja,** Vol.32, No:1, 2019, pp. 2972-2988.

Charnes, A., Cooper, W. W. & Ferguson, R. O.: "Optimal Estimation of Executive Compensation by Linear Programming", **Management Science,** Vol.1, No:2, 1955, pp. 138-151.

Charnes, A., Cooper, W. W. & Rhodes, E.: "Measuring the Efficiency of Decision Making Units", **European Journal of Operational Research,** Vol.2, No:6, 1978, pp. 429-444.

Chatterjee, P. & Chakraborty, S.: "Gear Material Selection Using Complex Proportional Assessment and Additive Ratio Assessment-Based Approaches: A Comparative Study", **International Journal of Materials Science and Engineering,** Vol.1, No:2, 2013, pp. 104-111.

Chatterjee, P., Banerjee, A., Mondal, S., Boral, S., & Chakraborty, S.: "Development of A Hybrid Meta-Model for Material Selection Using Design of Experiments and EDAS Method", **Engineering Transactions,** Vol.66, No:2, 2018, pp. 187-207.

Chatterjee, K., Pamucar, D. & Zavadskas, E. K.: "Evaluating the Performance of Suppliers Based on Using The R'AMATEL-MAIRCA Method for Green Supply Chain

Implementation in Electronics Industry", **Journal of Cleaner Production,** 184, 2018, pp. 101-129.

Chen, S.-J. & Hwang, C.-L.: **Fuzzy Multiple Attribute Decision Making,** 1992, Heidelberg: Springer.

Chen, C. H.: "A New Multi-Criteria Assessment Model Combining GRA Techniques with Intuitionistic Fuzzy Entropy-Based TOPSIS Method for Sustainable Building Materials Supplier Selection", **Sustainability,** Vol.11, No:8, 2019, 2265.

Choudhary, V. & Mishra, A.: "Analyzing the Critical Success Enablers of Industry 4.0 Using Hybrid Fuzzy AHP–CoCoSo Method", **Journal of Industrial Integration and Management,** Vol.7, No:04, 2022, pp. 493-514.

Dadelo, S., Turskis, Z., Zavadskas, E. K., & Dadeliene, R.: "Multiple Criteria Assessment of Elite Security Personal on the Basis of ARAS and Expert Methods", **Economic Computation and Economic Cybernetics Studies and Research,** Vol.46, No:4, 2012, pp. 65-88.

Dabbagh, R. & Yousefi, S.: "A Hybrid Decision-Making Approach Based on FCM and MOORA for Occupational Health and Safety Risk Analysis", **Journal of Safety Research,** 71, 2019, pp. 111-123.

Dahooie, J. H., Beheshti Jazan Abadi, E., Vanaki, A. S. & Firoozfar, H. R.: "Competency-Based IT Personnel Selection Using A Hybrid SWARA and ARAS-G Methodology", **Human Factors and Ergonomics in Manufacturing & Service Industries,** Vol.28, No:1, 2018, pp. 5-16.

Dahooie, J. H., Zavadskas, E. K., Abolhasani, M., Vanaki, A. & Turskis, Z.: "A Novel Approach for Evaluation of Projects Using An Interval–Valued Fuzzy Additive Ratio Assessment (ARAS) Method: A Case Study of Oil and Gas Well Drilling Projects", **Symmetry,** Vol.10, No:45, 2018, pp. 1-32.

Dahooie, J. H., Kazimieras Zavadskas, E., Salar Vanaki, S., Reza Firoozfar, H., Lari, M. & Turskis, Z.: "A New Evaluation Model for Corporate Financial Performance Using Integrated CCSD and FCM-ARAS Approach", **Economic Research-Ekonomska Istraživanja,** Vol.32, No:1, 2019, pp. 1088-1113.

Dandage, R., Mantha, S. S. & Rane, S. B.: "Ranking the Risk Categories in International Projects Using the TOPSIS Method", **International Journal of Managing Projects in Business,** Vol.11, No:2, 2018, pp. 317-331.

Debnath, A., Roy, J., Kar, S., Zavadskas, E. K. & Antucheviciene, J.: "A Hybrid MCDM Approach for Strategic Project Portfolio Selection of Agro By-Products", **Sustainability,** Vol.9, No:8, 2017, 1302.

Delen, D., Kuzey, C. & Uyar, A.: "Measuring Firm Performance Using Financial Ratios: A Decision Tree Approach", **Expert Systems with Applications,** No:40, 2013, pp. 3970-3983.

Demir, G.: "Comparison of the Financial Performance of Turkish Cement Firms with Fuzzy SWARA-COPRAS-MAUT Methods", **Gaziantep University Journal of Social Sciences,** Vol.20, No:4, 2021, pp. 1875-1892.

Demir, G., Özyalçın, A. T. & Gürcan, H.: **Çok Kriterli Karar Verme Yöntemleri ve ÇKKV Yazılımı ile Problem Çözümü,** 2021, Ankara: Nobel Akademik Yayıncılık.

Deng, Z.: "Fuzzy Pseudo-Metric Spaces", **Journal of Mathematical Analysis and Applications,** Vol.86, No:1, 1982, pp. 74-95.

Deveci, K., Cin, R. & Kağızman, A.: "A Modified Interval Valued Intuitionistic Fuzzy CODAS Method and Its Application to Multi-Criteria Selection Among Renewable Energy Alternatives in Turkey", **Applied Soft Computing,** 2020, 96, 106660.

Dhanisetty, V. V., Verhagen, W. J. C. & Curran, R.: "Multi-Criteria Weighted Decision Making for Operational Maintenance Processes", **Journal of Air Transport Management,** 68, 2018, pp. 152-164.

Dhiman, H. S. & Deb, D.: "Fuzzy TOPSIS and Fuzzy COPRAS Based Multi-Criteria Decision Making for Hybrid Wind Farms", **Energy**, 2020, 202, 117755.

Diakoulaki, D., Mavrotas G. & Papayannakis, L.: "The CRITIC Method", **Computers & Operations Research,** Vol.22, No:7, 1995, pp. 763-770.

Dobrovolskienė, N. & Pozniak, A.: "Simple Additive Weighting versus Technique for Order Preference by Similarity to an Ideal Solution: Which Method is Better Suited for Assessing the Sustainability of a Real Estate Project", **Entrepreneurship and Sustainability Issues,** Vol.8, No:4, 2021, pp. 180-196.

Dong, Q. & Saaty, T. L.: "An Analytic Hierarchy Process Model of Group Consensus", **Journal of Systems Science and Systems Engineering,** Vol.23, No:3, 2014, pp. 362-374.

Dong, L., Gu, X., Wu, X. & Liao, H.: "An Improved MULTIMOORA Method with Combined Weights and Its Application in Assessing the Innovative Ability of Universities", **Expert Systems,** Vol.36, No:2, 2019, e12362.

Dos Santos, B. M., Godoy, L. P. & Campos, L. M.: "Performance Evaluation of Green Suppliers Using Entropy-TOPSIS-F", **Journal of Cleaner Production,** 207, 2019, pp. 498-509.

Du, Y. W. & Gao, K.: "Ecological Security Evaluation of Marine Ranching with AHP-Entropy-Based TOPSIS: A Case Study of Yantai, China", **Marine Policy,** 122, 2020, 104223.

Easton, P.D.Mcanally, M.L., Sommers, G.A. & Zhang X.-J.: **Financial Statement Analysis & Valuation,** 2018, 5th ed., USA: Cambridge Business Publishers.

Ece, N.: "Holding Şirketlerinin Finansal Performans Sıralamasının Entropi Tabanlı TOPSIS Yöntemleri ile İncelenmesi", **Finans Ekonomi ve Sosyal Araştırmalar Dergisi,** Vol.4, No:1, 2019, pp. 63-73.

Ecer, F.: "Third-Party Logistics (3PLs) Provider Selection via Fuzzy AHP and EDAS Integrated Model", **Technological and Economic Development of Economy,** Vol.24, No:2, 2018, pp. 615-634.

Ecer, F., Pamucar, D., Zolfani, S. H. & Eshkalag, M. K.: "Sustainability Assessment of OPEC Countries: Application of A Multiple Attribute Decision Making Tool", **Journal of Cleaner Production,** 241, 2019, 118324.

Ecer, F.: **Çok Kriterli Karar Verme,** 2020, Ankara: Seçkin Yayınları.

Ecer, F. & Pamucar, D.: "Sustainable Supplier Selection: A Novel Integrated Fuzzy Best Worst Method (F-BWM) and Fuzzy CoCoSo with Bonferroni (CoCoSo'B) Multi-Criteria Model", **Journal of Cleaner Production,** 266, 2020, 121981.

Ecer, F.: "An Extended MAIRCA Method Using Intuitionistic Fuzzy Sets for Coronavirus Vaccine Selection in the Age of COVID-19", **Neural Computing and Applications,** Vol.34, No:7, 2022, pp. 5603-5623.

Ecer, F., Böyükaslan, A. & Hashemkhani Zolfani, S.: "Evaluation of Cryptocurrencies for Investment Decisions in the Era of Industry 4.0: A Borda Count-Based Intuitionis-

tic Fuzzy Set Extensions EDAS-MAIRCA-MARCOS Multi-Criteria Methodology", **Axioms,** Vol.11, No:8, 2022, 404.

Eghtesadifard, M., Afkhami, P. & Bazyar, A.: "An Integrated Approach to the Selection of Municipal Solid Waste Landfills Through GIS, K-Means And Multi-Criteria Decision Analysis", **Environmental Research,** 185, 2020, 109348.

Erceg, Ž., Starčević, V., Pamučar, D., Mitrović, G., Stević, Ž. & Žikić, S.: "A New Model for Stock Management in Order to Rationalize Costs: ABC-FUCOM-Interval Rough CoCoSo Model", **Symmetry,** Vol.11, No:12, 2019, 1527.

Erdin, C., & Çağlar, M.: **"**Rural Fire Risk Assessment in GIS Environment Using Fuzzy Logic and the AHP Approaches", **Polish Journal of Environmental Studies,** Vol.30, No:6, 2021, pp. 1-14.

Erol, I. & Ferrell Jr., W.G.: "Integrated Approach for Reorganizing Purchasing: Theory and A Case Analysis on A Turkish Company", **Computers & Industrial Engineering,** 56, 2009, pp. 1192-1204.

Ersoy, N.: "Türk İnşaat Firmalarının Finansal Performansının SECA Yöntemi ile Değerlendirilmesi", **İzmir İktisat Dergisi,** C.37, No: 4, 2022, pp. 1003-1021.

Fayazbakhsh, K., Abedian, A., Manshadi, B. D. & Khabbaz R.S.: "Introducing A Novel Method for Materials Selection in Mechanical Design Using Z-Transformation in Statistics for Normalization of Material Properties", **Materials & Design,** Vol.30 No:10, 2009, pp. 4396-404.

Feldman, M. & Libman, A.: **Crash Course in Accounting & Financial Statement Analysis,** 2007, 2nd ed., NJ: Wiley.

Feng, C. M., & Wang, R. T.: "Performance Evaluation for Airlines Including the Consideration of Financial Ratios", **Journal of Air Transport Management,** Vol.6, No:3, 2000, pp. 133-142.

Fu, Y. K.: "An Integrated Approach to Catering Supplier Selection Using AHP-A-RAS-MCGP Methodology", **Journal of Air Transport Management,** 75, 2019, pp. 164-169.

Gabus, A. & Fontela, E.: "World Problems, An Invitation to Further Thought within the Framework of DEMATEL". *Battelle Geneva Research Center,* 1972, *Geneva, Switzerland*, Vol.1, No:8.

Ganguly, K. & Kumar, G.: "Supply Chain Risk Assessment: A Fuzzy AHP Approach", **Operations and Supply Chain Management: An International Journal,** Vol.12, No:1, 2019, pp. 1-13.

García Mestanza, J. & Bakhat, R.: "A Fuzzy AHP-MAIRCA Model for Overtourism Assessment: The Case of Malaga Province", **Sustainability,** Vol.13, No:11, 2021, 6394.

Gardziejczyk, W., & Zabicki, P. "Normalization and Variant Assessment Methods in Selection of Road Alignment Variants–Case Study", **Journal of Civil Engineering and Management,** Vol.23, No:4, 2017, pp. 510-523.

Garg, H., Vimala, J., Rajareega, S., Preethi, D. & Perez-Dominguez, L.: "Complex Intuitionistic Fuzzy Soft SWARA-COPRAS Approach: An Application of ERP Software Selection", **AIMS Math,** Vol.7, No:4, 2022, pp. 5895-5909.

Garre, A., Boué, G., Fernández, P. S., Membré, J. M. & Egea, J. A.: "Evaluation of Multicriteria Decision Analysis Algorithms in Food Safety: A Case Study on Emerging Zoonoses Prioritization", **Risk Analysis,** Vol.40, No:2, 2020, pp. 336-351.

George, J. & Xavier, J. F.: **A Hybrid MCDM Model Combining Entropy Weight Method with Range of Value (ROV) Method and Evaluation Based on Distance from Average Solution (EDAS) Method for Supplier Selection in Supply Chain Management.** *In Operations Management and Data Analytics Modelling* (pp. 13-24). CRC Press.

Ghenai, C., Albawab, M. & Bettayeb, M.: "Sustainability Indicators for Renewable Energy Systems Using Multi-Criteria Decision-Making Model and Extended SWARA/ ARAS Hybrid Method", **Renewable Energy,** 146, 2020, pp. 580-597.

Ghorabaee, M. K., Zavadskas, E. K. & Olfat, L. & Turskis, Z.: "Multi-Criteria Inventory Classification Using a New Method of Evaluation Based on Distance from Average Solution (EDAS)", **Informatica,** Vol.26, No:3, 2015, pp. 435-451.

Ghorabaee, M. K., Zavadskas, E. K., Turskis, Z. & Antuchevıcıene, J.: "A New Combinative Distance-Based Assessment (CODAS) Method for Multi-Criteria Decision-Making", **Economic Computation and Economic Cybernetics Studies and Research,** Vol.50, No:3, 2016, pp. 25-44.

Ghorabaee, M. K., Zavadskas, E. K., Amiri, M. & Turskis, Z.: "Extended EDAS Method for Fuzzy Multi-Criteria Decision-Making: An Application to Supplier Selection", **International Journal of Computers Communications & Control,** Vol.11, No:3, 2016, pp. 358-371.

Ghorabaee, M. K., Amiri, M., Zavadskas, E. K., Turskis, Z. & Antucheviciene, J.: "A New Multi-Criteria Model Based on Interval Type-2 Fuzzy Sets and EDAS Method for Supplier Evaluation and Order Allocation with Environmental Considerations", **Computers & Industrial Engineering,** 112, 2017, pp. 156-174.

Ghorabaee, M.K., Amiri, M., Zavadskas, E.K. & Antuchevičienė, J.: "Assessment of Third-Party Logistics Providers Using a CRITIC-WASPAS Approach with Interval Type-2 Fuzzy Sets", **Transport,** Vol.2, No:1, 2017, pp. 66-78.

Ghorabaee, M. K., Amiri, M., Zavadskas, E. K., Turskis, Z. & Antucheviciene, J.: "Stochastic EDAS Method for Multi-Criteria Decision-Making with Normally Distributed Data", **Journal of Intelligent & Fuzzy Systems**, Vol.33, No:3, 2017, pp. 1627-1638.

Ghorabaee, M. K., Amiri, M., Zavadskas, E. K., Hooshmand, R. & Antuchevičienė, J.: "Fuzzy Extension of the CODAS Method for Multi-Criteria Market Segment Evaluation", **Journal of Business Economics and Management,** Vol.18 No:1, 2017, pp. 1-19.

Ghorabaee, M. K., Amiri, M., Zavadskas, E. K., Turskis, Z., & Antucheviciene, J.: "Determination of Objective Weights Using a New Method Based on the Removal Effects of Criteria (MEREC), **Symmetry,** Vol.13, No:525, 2021, pp. 1-20.

Ghorshi Nezhad, M. R., Zolfani, S. H., Moztarzadeh, F., Zavadskas, E. K. & Bahrami, M.: "Planning the Priority of High Tech Industries Based on SWARA-WASPAS Methodology: The Case of the Nanotechnology Industry in Iran", **Economic Research-Ekonomska İstraživanja,** Vol.28, No:1, 2015, pp. 1111-1137.

Ghosh, S. & Bhattacharya, M.: "Analyzing the Impact of COVID-19 on the Financial Performance of the Hospitality and Tourism Industries: An Ensemble MCDM Approach in the Indian Context", **International Journal of Contemporary Hospitality Management,** (ahead-of-print), 2022.

Gigović, L., Pamučar, D., Bajić, Z. & Milićević, M.: "The Combination, of Expert Judgment and GIS-MAIRCA Analysis for the Selection of Sites for Ammunition Depots", **Sustainability,** Vol.8, No:4, 2016, 372.

Gireesha, O., Somu, N., Krithivasan, K. & VS, S. S.: "IIVIFS-WASPAS: An Integrated Multi-Criteria Decision-Making Perspective for Cloud Service Provider Selection", **Future Generation Computer Systems,** 103, 2020, pp. 91-110.

Gorczyńska, M.: "Accounts Receivable Turnover Ratio. The Purpose of Analysis in Terms of Credit Policy Management". **8th International Scientific Conference Financial Management of Firms and Financial Institutions,** 6th-7th September 2011, Ostrava.

Goswami, S. S. & Behera, D. K.: "Implementation of ENTROPY-ARAS Decision Making Methodology in the Selection of Best Engineering Materials", **Materials Today: Proceedings,** 38, 2021, pp. 2256-2262.

Goswami, S. S. & Behera, D. K.: "Solving Material Handling Equipment Selection Problems in An Industry with the Help of Entropy Integrated COPRAS and ARAS MCDM Techniques", **Process Integration and Optimization for Sustainability,** Vol.5, No:4, 2021, pp. 947-973.

Goswami, S. & Mitra, S.: "Selecting the Best Mobile Model by Applying AHP-COPRAS and AHP-ARAS Decision Making Methodology", **International Journal of Data and Network Science,** Vol.4, No:1, 2020, pp. 27-42.

Goswami, S. S., Mohanty, S. K. & Behera, D. K.: "Selection of A Green Renewable Energy Source in India with the Help of MEREC Integrated PIV MCDM Tool", **Materials Today: Proceedings,** 52, 2022, pp. 1153-1160.

Goyal, P., Rahman, Z. & Kazmi, A.A.: "Corporate Sustainability Performance and Firm Performance Research: Literature Review and Future Research Agenda", **Management Decision,** Vol.51, No:2, 2015, pp. 361-379.

Gökgöz, F. & Yalçın, E.: "Sustainability of G20 Countries within Environmental and Energy Perspectives", **Present Environment & Sustainable Development,** Vol.16, No:2, 2022.

Gupta, S., Soni, U. & Kumar, G.: "Green Supplier Selection Using Multi-Criterion Decision Making Under Fuzzy Environment: A Case Study in Automotive Industry", **Computers & Industrial Engineering,** 136, 2019, pp. 663-680.

Gupta, S., Mathew, M., Gupta, S. & Dawar, V.: "Benchmarking the Private Sector Banks in India Using MCDM Approach", **Journal of Public Affairs,** Vol.21, No:2, 2020, e2409.

Gurumurthy, H., Bheemappa, S., Chidanandappa, R. & Bhat, P.: "Optimization of Bio-based Liquid Transformer Insulator Using MOORA Method", **Electric Power Components and Systems,** Vol.48, No:12-13, 2020, pp. 1401-1409.

Gül, M. & Ak, M. F.: "Assessment of Occupational Risks from Human Health and Environmental Perspectives: A New Integrated Approach and Its Application Using Fuzzy BWM and Fuzzy MAIRCA", **Stochastic Environmental Research and Risk Assessment,** Vol.34, No:8, 2020, pp. 1231-1262.

Gül, M. & Yücesan, M.: "Performance Evaluation of Turkish Universities by An Integrated Bayesian BWM-TOPSIS Model", **Socio-Economic Planning Sciences,** 80, 2022, 101173.

Gümüş, U. T., Öziç, H. C. & Sezer, D.: "BİST'te İnşaat ve Bayındırlık Sektöründe İşlem Gören İşletmelerin SWARA ve ARAS Yöntemleriyle Finansal Performanslarının Değerlendirilmesi", **OPUS International Journal of Society Researches,** Vol.10, No:17, 2019, pp. 835-858.

Guserl, R. & Pernsteiner, H.: **Finanzmanagement,** 2015, 2. Auflage, Wiesbaden: Springler Gabler.

Günay, S.S.: **İşletme Finansının Temelleri,** 2014, Edirne: Paradigma Akademi.

Hadian, S., Shahiri Tabarestani, E. & Pham, Q. B.: "Multi Attributive Ideal-Real Comparative Analysis (MAIRCA) Method for Evaluating Flood Susceptibility in A Temperate Mediterranean Climate", **Hydrological Sciences Journal,** Vol.67, No:3, 2022, pp. 401-418.

Hafezalkotob, A. & Hafezalkotob, A.: "Extended MULTIMOORA Method Based on Shannon Entropy Weight for Materials Selection", **Journal of Industrial Engineering International,** Vol.12, No:1, 2016, pp. 1-13.

Hajkowicz, S., & Higgins, A.: "A Comparison of Multiple Criteria Analysis Techniques for Water Resource Management", **European Journal of Operational Research,** Vol.184, No:1, pp. 255-265.

Hamurcu, M. & Eren, T.: "Applications of the MOORA and TOPSIS Methods for Decision of Electric Vehicles in Public Transportation Technology", **Transport,** Vol.37, No:4, 2022, pp. 251-263.

Han, Y., Cui, S., Geng, Z., Chu, C., Chen, K. & Wang, Y.: "Food Quality and Safety Risk Assessment Using A Novel HMM Method Based on GRA", **Food Control,** 105, 2019, pp. 180-189.

Han, Y., Wang, Z., Lu, X., & Hu, B.: "Application of AHP to Road Selection", **ISPRS International Journal of Geo-Information,** Vol.9, No:86, 2020, pp. 1-21.

Hasheminezhad, A., Hadadi, F. & Shirmohammadi, H.: "Investigation and Prioritization of Risk Factors in the Collision of Two Passenger Trains Based on Fuzzy COPRAS and Fuzzy DEMATEL Methods", **Soft Computing,** Vol.25, No:6, 2021, pp. 4677-4697.

Hatefi, S. M. & Tamošaitienė, J.: "Construction Projects Assessment Based on the Sustainable Development Criteria by An Integrated Fuzzy AHP and Improved GRA Model", **Sustainability,** Vol.10, No:4, 2018, 991.

He, T., Zhang, S., Wei, G., Wang, R., Wu, J. & Wei, C.: "CODAS Method for 2-Tuple Linguistic Pythagorean Fuzzy Multiple Attribute Group Decision Making and Its Application to Financial Management Performance Assessment", **Technological and Economic Development of Economy,** Vol.26, No:4, 2020, pp. 920-932.

Heesen, B.: **Basiswissen Bilanzanalyse Schneller Einstieg in Jahresabschluss, Bilanz und GuV,** 2020, 4. Auflage, Wiesbaden: Springler Gabler.

Hou, W. H., Wang, X. K., Zhang, H. Y., Wang, J. Q. & Li, L.: "Safety Risk Assessment of Metro Construction Under Epistemic Uncertainty: An Integrated Framework Using Credal Networks and the EDAS Method", **Applied Soft Computing,** 2021, 108, 107436.

Huang, M., Zhang, X., Ruxue, R. E. N., Liao, H., Zavadskas, E. K. & Antuchevičienė, J.: "Energy-Saving Building Program Evaluation with An Integrated Method Under Linguistic Environment", **Journal of Civil Engineering and Management,** Vol.26, No:5, 2020, pp. 447-458.

Hwang, C.L. & Yoon, K.: **Multiple Attribute Decision Making: Methods and Applications,** 1981, New York, Springer-Verlag: Berlin Heidelberg.

Ighravwe, D. E. & Oke, S. A.: "A Multi-Criteria Decision-Making Framework for Selecting A Suitable Maintenance Strategy for Public Buildings Using Sustainability Criteria" **Journal of Building Engineering,** 24, 100753, 2019.

Ishizaka, A. & Nemery, P.: **Multi-Criteria Decision Analysis Methods and Software,** 2013, UK: John Wiley & Sons.

Işık, A. T., & Adalı, E. A.: "The Decision-Making Approach Based on the Combination of Entropy and ROV Methods for the Apple Selection Problem", **European Journal of Interdisciplinary Studies,** Vol.3, No:3, 2017, pp. 80-86.

İç, Y. T., Çelik, B., Kavak, S. & Baki, B.: "Development of A Multi-Criteria Decision-Making Model for Comparing the Performance of Turkish Commercial Banks", **Journal of Advances in Management Research,** Vol.18, No:2, 2021, pp. 250-272.

İç, Y. T., Yurdakul, M. & Pehlivan, E.: "Development of A Hybrid Financial Performance Measurement Model Using AHP and DOE Methods for Turkish Commercial Banks", **Soft Computing,** 26, pp. 2959-2979.

Jahan, A., & Edwards, K. L.: "A State-Of-The-Art Survey on the Influence of Normalization Techniques in Ranking: Improving The Materials Selection Process in Engineering Design", **Materials & Design,** No:65, 2015, pp. 335-342.

Jahan, A., Edwards, K. L. & Bahraminasab, M.: **Multi-Criteria Decision Analysis for Supporting the Selection of Engineering Materials in Product Design,** 2016, 2nd ed., UK: Elsevier.

Jahan, F., Soni, M., Wakeel, S., Ahmad, S. & Bingol, S.: "Selection of Automotive Brake Material Using Different MCDM Techniques and Their Comparisons", **Journal of Engineering Science & Technology Review,** Vol.15, No:1, 2022, pp. 24-33.

Jaukovic Jocic, K., Jocic, G., Karabasevic, D., Popovic, G., Stanujkic, D., Zavadskas, E. K. & Thanh Nguyen, P.: "A Novel Integrated PIPRECIA–Interval-Valued Triangular Fuzzy ARAS Model: E-Learning Course Selection", **Symmetry,** Vol.12, No:6, 2020, 928, pp. 1-14.

Ji, P., Zhang, H. Y. & Wang, J. Q.: "Selecting An Outsourcing Provider Based on the Combined MABAC–ELECTRE Method Using Single-Valued Neutrosophic Linguistic Sets", **Computers & Industrial Engineering,** 120, 2018, pp. 429-441.

Jia, F., Liu, Y. & Wang, X.: "An Extended MABAC Method for Multi-Criteria Group Decision Making Based on Intuitionistic Fuzzy Rough Numbers", **Expert Systems with Applications,** 127, 2019, pp. 241-255.

Jovčić, S., Simić, V., Průša, P. & Dobrodolac, M.: "Picture Fuzzy ARAS Method for Freight Distribution Concept Selection", **Symmetry,** Vol.12, No:7, 2020, 1062.

Juwita, C.P. & Diana, N: "The Effect of DER and ROE on Stock Price JII Companies", **Management Analysis Journal,** Vol.9, No:4, 2020, pp. 434-441.

Kahraman, C.: "Multi-Criteria Decision Making Methods and Fuzzy Sets". **Fuzzy Multi-Criteria Decision-Making Theory and Applications with Recent Developments,** (ed.) C. Kahraman, Springer, New York, 2008, pp. 1-18.

KAP: https://www.kap.org.tr/tr/Endeksler. Erişim Tarihi: 13.02.2021.

KAP: https://www.kap.org.tr/tr/Sektorler. Erişim Tarihi: 02.04.2023.

Kara, K., Bentyn, Z. & Yalçın, G. C.: "Determining the Logistics Market Performance of Developing Countries by Entropy and MABAC Methods", **LogForum,** Vol.18, No:4, 2022, pp. 421-434.

Karabasevic, D., Paunkovic, J. & Stanujkic, D.: "Ranking of Companies According to the Indicators of Corporate Social Responsibility Based on SWARA and ARAS Methods", **Serbian Journal of Management**, Vol.11, No:1, 2016, pp. 43-53.

Karabasevic, D., Zavadskas, E. K., Turskis, Z. & Stanujkic, D.: "The Framework for the Selection of Personnel Based on the SWARA and ARAS Methods Under Uncertainties", **Informatica,** Vol.27, No:1, 2016, pp. 49-65.

Karabasevic, D., Zavadskas, E. K., Stanujkic, D., Popovic, G. & Brzakovic, M.: "An Approach to Personnel Selection in the IT Industry Based on the EDAS Method", **Transformations in Business & Economics,** 17, 2018, pp. 54-65.

Karadağ Ak, Ö., Hazar, A. & Babuşcu, Ş.: "Evaluation of the Financial Performance of Development and Investment Banks with Entropy-Based ARAS Method", **Macroeconomics and Finance in Emerging Market Economies,** 2022, pp. 1-21.

Karagöz, S., Deveci, M., Simic, V. & Aydın, N.: "Interval Type-2 Fuzzy ARAS Method for Recycling Facility Location Problems", **Applied Soft Computing,** 102, 2021, 107107.

Karaman, R.: "İşletmelerde Performans Ölçümünün Önemi ve Modern Bir Performans Ölçme Aracı Olarak Balanced Scorecard", **Sosyal Ekonomik Araştırmalar Dergisi,** C.8, No:16, 2009, s. 410-427.

Karamustafa, O., Varıcı, İ. & Er, B.: "Kurumsal Yönetim ve Firma Performansı: İMKB Kurumsal Yönetim Endeksi Kapsamındaki Firmalar Üzerinde Bir Uygulama", **Kocaeli Üniversitesi Sosyal Bilimler Enstitüsü Dergisi,** C.17, No:1, 2009, s. 100-119.

Karaoğlan, S. & Şahin, S.: "BİST XKMYA İşletmelerinin Finansal Performanslarının Çok Kriterli Karar Verme Yöntemleri ile Ölçümü ve Yöntemlerin Karşılaştırılması", **Ege Akademik Bakış,** Vol.18, No:1, 2018, pp. 63-80.

Karaşan, A. & Kahraman, C.: "A Novel Interval-Valued Neutrosophic EDAS Method: Prioritization of the United Nations National Sustainable Development Goals", **Soft Computing,** 22, 2018, pp. 4891-4906.

Karaşan, A., Zavadskas, E. K., Kahraman, C. & Keshavarz-Ghorabaee, M.: "Residential Construction Site Selection Through Interval-Valued Hesitant Fuzzy CODAS Method", **Informatica,** Vol.30, No:4, 2019, pp. 689-710.

Karatop, B., Taşkan, B., Adar, E. & Kubat, C.: "Decision Analysis Related to the Renewable Energy Investments in Turkey Based on A Fuzzy AHP-EDAS-Fuzzy FMEA Approach", **Computers & Industrial Engineering,** 2021, 151, 106958.

Karlin, S. & Studden, W.J.: "Optimal Experimental Designs", **The Annals of Mathematical Statistics,** Vol.37, No:4, 1966, pp. 783-815.

Karsak, E. E. & Göker, N.: "Improved Common Weight DEA-Based Decision Approach for Economic and Financial Performance Assessment", **Technological and Economic Development of Economy,** Vol.26, No:2, 2020, pp. 430-448.

Kasmir: **Analisis Laporan Keuangan,** Raja Grafindo, 2012, Jakarta: PT**.**

Keršuliene, V., Zavadskas, E. K. & Turskis, Z.: "Selection of Rational Dispute Resolution Method by Applying New Step-Wise Weight Assessment Ratio Analysis (SWARA)", **Journal of Business Economics and Management,** Vol.11, No:2, 2010, pp. 243-258.

Khan, N. Z., Ansari, T. S. A., Siddiquee, A. N., & Khan, Z. A.: "Selection of E-Learning Websites Using a Novel Proximity Indexed Value (PIV) MCDM Method", **Journal of Computers in Education,** Vol.6, No:2, 2019, pp. 241-256.

Khan, M. A. & Alghamdi, N. S.: "A Neutrosophic WPM-Based Machine Learning Model for Device Trust in Industrial Internet of Things", **Journal of Ambient Intelligence and Humanized Computing,** Vol.14, No:4, 2021, pp. 3003-3017.

Kijewska, A.: "Determinants of the Return on Equity Ratio (ROE) on the Example of Companies from Metallurgy and Mining Sector in Poland", **METABK,** Vol.55, No:2, 2016, pp. 285-288.

Köksalan, M.: "The Early History of MCDM". **Multiple Criteria Decision Making From Early History to the 21st Century,** (eds.) M. Köksalan, J. Wallenius & S. Zionts, World Scientific, Singapore, 2011, pp. 1-16.

Kumaran, S.: "Financial Performance Index of IPO Firms Using VIKOR-CRITIC Techniques", **Finance Research Letters,** 47, 2022, 102542.

Kundakçı, N. & Işık, A.: "Integration of MACBETH and COPRAS Methods to Select Air Compressor for A Textile Company", **Decision Science Letters,** Vol.5, No:3, 2016, pp. 381-394.

Kundakçı, N.: "An Integrated Method Using MACBETH and EDAS Methods for Evaluating Steam Boiler Alternatives", **Journal of Multi-Criteria Decision Analysis,** Vol.26, No:1-2, 2019, pp. 27-34.

Kuo, Y., Yang, T. H. & Huang, G. W.: The Use of Grey Relational Analysis in Solving Facilities Layout Design Problem. **In 36th International Conference on Computers and Industrial Engineering, ICC and IE 2006.**

Kuo, Y., Yang, T. & Huang, G. W.: "The Use of Grey Relational Analysis in Solving Multiple Attribute Decision-Making Problems", **Computers & Industrial Engineering,** Vol.55, No:1, 2008, pp. 80-93.

Kurt, G. & Kablan, A.: "Covid-19'un, BIST Ulaştırma Endeksinde Faaliyet Gösteren Havayolu İşletmelerinin Finansal Performansı Üzerindeki Etkilerinin Çok Kriterli Karar Verme Yöntemleri ile Analizi", **İşletme Akademisi Dergisi,** C.3, No:1, 2022, pp. 16-33.

Kutut, V., Zavadskas, E. K. & Lazauskas, M.: "Assessment of Priority Alternatives for Preservation of Historic Buildings Using Model Based on ARAS and AHP Methods", **Archives of Civil and Mechanical Engineering,** 14, 2014, pp. 287-294.

Lahdelma, R., Hokkanen, J. & Salminen, P.: "SMAA-Stochastic Multiobjective Acceptability Analysis", **European Journal of Operational Research,** Vol.106, No:1, 1998, pp. 137-143.

Lai, Y.-J., Liu, T.Y. & Hwang, C.-L.: "TOPSIS for MODM", **European Journal of Operational Research,** Vol.76, No:3, 1994, pp. 486-500.

Lam, W. S., Lam, W. H., Jaaman, S. H. & Liew, K. F.: "Performance Evaluation of Construction Companies Using Integrated Entropy–Fuzzy VIKOR Model", **Entropy,** Vol.23, No:3, 2021, 320.

Lansdowne, Z. F. & Woodward, B. S.: "Applying the Borda Ranking Method", **Air Force Journal of Logistics,** Vol.20, No:2, 1996, pp. 27-29.

Lee, P. T. W., Lin, C. W. & Shin, S. H.: "Financial Performance Evaluation of Shipping Companies Using Entropy and Grey Relation Analysis", **Multi-Criteria Decision Making in Maritime Studies and Logistics: Applications and Cases,** 2018, pp. 219-247.

Lesáková, L.: "Uses and Limitations of Profitability Ratio Analysis in Managerial Practice". **5th International Conference on Management, Enterprise and Benchmarking.** June 1-2, 2007, Budapest, Hungary.

Li, X., Liao, X., Zhong, Q., Zheng, K., Chen, S., Chen, X. J. & Yang, H.: "Applying GRA to Analyze Influencing Factors of Patients' Financial Burden: A Case Study of Hos-

pitals with PPP Model in China", **Grey Systems: Theory and Application,** Vol.9, No:2, 2019, pp. 175-184.

Li, T., Li, A. & Guo, X.: "The Sustainable Development-Oriented Development and Utilization of Renewable Energy Industry–A Comprehensive Analysis of MCDM Methods", **Energy,** 212, 118694, 2020.

Li, Z., Dou, Y., Xia, B., Yang, K. & Li, M.: "System Portfolio Selection Based on GRA Method Under Hesitant Fuzzy Environment", **Journal of Systems Engineering and Electronics,** Vol.33, No:1, 2022, pp. 120-133.

Liang, W., Zhao, G., Wu, H. & Dai, B: "Risk Assessment of Rockburst via An Extended MABAC Method Under Fuzzy Environment", **Tunnelling and Underground Space Technology,** 83, 2019, pp. 533-544.

Liang, Y.: "An EDAS Method for Multiple Attribute Group Decision-Making Under Intuitionistic Fuzzy Environment and Its Application for Evaluating Green Building Energy-Saving Design Projects", **Symmetry,** Vol.12, No:3, 2020, 484.

Liachovičius, E., Skrickij, V. & Podviezko, A.: "MCDM Evaluation of Asset-Based Road Freight Transport Companies Using Key Drivers That Influence the Enterprise Value", **Sustainability,** Vol.12, No.:18, 2020, 7259.

Liew, K. F., Lam, W. S. & Lam, W. H.: "Financial Network Analysis on the Performance of Companies Using Integrated Entropy–DEMATEL–TOPSIS Model", **Entropy,** Vol.24, No:8, 2022, 1056.

Lu, Y. H., Yeh, C. C., & Liau, T. W.: "Exploring the Key Factors Affecting the Usage Intention for Cross-Border E-Commerce Platforms Based on DEMATEL and EDAS Method", **Electronic Commerce Research,** 2022, pp. 1-23.

Lukić, R.: "Application of MABAC Method in Evaluation of Sector Efficiency in Serbia", **Revista de Management Comparat Internațional,** Vol.22, No:3, 2021, pp. 400-418.

Lyu, H. M., Zhou, W. H., Shen, S. L. & Zhou, A. N.: "Inundation Risk Assessment of Metro System Using AHP and TFN-AHP in Shenzhen", **Sustainable Cities and Society,** 56, 2020, 102103.

Maghsoodi, A. I., Ijadi Maghsoodi, A., Poursoltan, P., Antucheviciene, J. & Turskis, Z.: "Dam Construction Material Selection by Implementing the Integrated SWARA-CODAS Approach with Target-Based Attributes", **Archives of Civil and Mechanical Engineering,** 19, 2019, pp. 1194-1210.

Maghsoodi, A. I., Rasoulipanah, H., López, L. M., Liao, H. & Zavadskas, E. K.: "Integrating Interval-Valued Multi-Granular 2-Tuple Linguistic BWM-CODAS Approach with Target-Based Attributes: Site Selection for A Construction Project", **Computers & Industrial Engineering**, 2020, 139, 106147.

Malinda, M. & Chen, J. H.: "The Forecasting of Consumer Exchange-Traded Funds (Etfs) via Grey Relational Analysis (GRA) and Artificial Neural Network (ANN)", **Empirical Economics,** Vol.62, No:2, 2022, pp. 779-823.

Maredza, A., Wanke, P., Antunes, J., Pimenta, R. & Tan, Y.: "Social Welfare and Bank Performance: Evidence From A Stochastic Neural Hybrid MCDM Approach", **Journal of Economic Studies,** Vol.49, No:7, 2022, pp. 1137-1158.

Masoomi, B., Sahebi, I. G., Fathi, M., Yıldırım, F. & Ghorbani, S.: "Strategic Supplier Selection for Renewable Energy Supply Chain Under Green Capabilities (Fuz-

zy BWM-WASPAS-COPRAS Approach)", **Energy Strategy Reviews,** 2022, 40, 100815.

McGowan, C.B., Gardner, J.C. & Moeller, S.E.: **The Fundamentals of Financial Statement Analysis as Applied to the Coca-Cola Company,** 2015, NY: Business Expert Press.

Mehta, K., Sharma, R. & Vyas, V.: "Efficiency and Ranking of Sustainability Index of India Using DEA-TOPSIS", **Journal of Indian Business Research,** Vol.11, No.2, 2019, pp. 179-199.

Melicher, R.W. & Norton, E.A.: **Introduction to Finance,** 2017, 16th ed., USA: Wiley.

Menekşe, A. & Akdağ, H. C.: "Distance Education Tool Selection Using Novel Spherical Fuzzy AHP EDAS", **Soft Computing,** Vol.26, No:2, 2022, pp. 1617-1635.

Mercan, Y. & Çetin, O.: "COPRAS ve VIKOR Yöntemleri ile BIST Elektrik Endeksindeki Firmalarının Finansal Performans Analizi", **Uluslararası Afro-Avrasya Araştırmaları Dergisi,** Vol.5, No:9, 2020, pp. 123-139.

Mesran, M., Suginam, S. & Utomo, D. P.: "Implementation of AHP and WASPAS (Weighted Aggregated Sum Product Assessment) Methods in Ranking Teacher Performance", **IJISTECH (International Journal of Information System and Technology),** Vol.3, No:2, 2020, pp. 173-182.

Milosavljević, M., Bursać, M. & Tričković, G.: "Selection of the Railroad Container Terminal in Serbia Based on Multi Criteria Decision Making Methods", **Decision Making: Applications in Management and Engineering,** Vol.1, No:2, 2018, pp. 1-15.

Mishra, A. R., Rani, P., Pardasani, K. R. & Mardani, A.: "A Novel Hesitant Fuzzy WASPAS Method for Assessment of Green Supplier Problem Based on Exponential Information Measures", **Journal of Cleaner Production,** 238, 2019, 117901.

Mishra, A. R., Chandel, A. & Motwani, D.: "Extended MABAC Method Based on Divergence Measures for Multi-Criteria Assessment of Programming Language with Interval-Valued Intuitionistic Fuzzy Sets", **Granular Computing,** 5, 2020, pp. 97-117.

Mishra, A. R., Sisodia, G., Raj Pardasani, K. & Sharma, K.: "Multi-Criteria IT Personnel Selection on Intuitionistic Fuzzy Information Measures and ARAS Methodology", **Iranian Journal of Fuzzy Systems,** Vol.17, No:4, 2020, pp. 55-68.

Mishra, A. R., Mardani, A., Rani, P. & Zavadskas, E. K.: "A Novel EDAS Approach on Intuitionistic Fuzzy Set for Assessment of Health-Care Waste Disposal Technology Using New Parametric Divergence Measures", **Journal of Cleaner Production,** 2020, 272, 122807.

Mishra, A. R., Liu, P. & Rani, P.: "COPRAS Method Based on Interval-Valued Hesitant Fermatean Fuzzy Sets and Its Application in Selecting Desalination Technology", **Applied Soft Computing,** 2022, 119, 108570.

Mishra, A. R., Saha, A., Rani, P., Pamucar, D., Dutta, D., & Hezam, I. M.: "Sustainable Supplier Selection Using HF-DEA-FOCUM-MABAC Technique: A Case Study in the Auto-Making Industry", **Soft Computing,** Vol.26, No:17, 2022, pp. 8821-8840.

Mistepe, M.U.: "Orman Ürünleri Sanayinde ORÜS A.Ş.'nin Performans Göstergeleri", **Verimlilik Dergisi,** MPM Yayınları, C.10, No:109, 1998.

Mitra, A.: "Application of Multi-Objective Optimization on the Basis of Ratio Analysis (MOORA) for Selection of Cotton Fabrics for Optimal Thermal Comfort", **Research Journal of Textile and Apparel,** Vol.26, No:2, 2021, pp. 187-203.

Moghimi, R., Anvari, A., Amoozesh, N. & Ghesary, T.: "An Integrated Fuzzy MCDM Approach, and Analysis, to the Evaluation of the Financial Performance of Iranian Cement Companies", **Life Science Journal,** Vol.5, No:1, 2013, pp. 570-586.

Moslem, S. & Çelikbilek, Y.: "An Integrated Grey AHP-MOORA Model for Ameliorating Public Transport Service Quality", **European Transport Research Review,** 12, 2020, pp. 1-13.

Moslem, S., Farooq, D., Ghorbanzadeh, O. & Blaschke, T.: "Application of the AHP-BWM Model for Evaluating Driver Behavior Factors Related to Road Safety: A Case Study for Budapest", **Symmetry,** Vol.12, No:243, 2020, pp. 1-11.

Mousavi-Nasab, S. H. & Sotoudeh-Anvari, A.: "An Extension of Best-Worst Method with D Numbers: Application in Evaluation of Renewable Energy Resources", **Sustainable Energy Technologies and Assessments,** 2020, 40, 100771.

Mufazzal, S. & Muzakkir, S. M.: "A New Multi-Criterion Decision Making (MCDM) Method Based on Proximity Indexed Value for Minimizing Rank Reversals", **Computers & Industrial Engineering,** 119, 2018, pp. 427-438.

Mulliner, E., Smallbone, K. & Maliene, V.: "An Assessment of Sustainable Housing Affordability Using A Multiple Criteria Decision Making Method", **Omega,** Vol.41, No:2, 2013, pp. 270-279.

Mulliner, E., Malys, N. & Maliene, V.: "Comparative Analysis of MCDM Methods for the Assessment of Sustainable Housing Affordability", **Omega,** 2016, 59, pp. 146-156.

Munier, N.: "Multi-Criteria Decision-Making, Evolution and Characteristics". **Strategic Approach in Multi-Criteria Decision Making,** (eds.) N. Munier, E. Hontoria & F. Jiménez-Sáez, Springer, USA, 2019, pp. 3-13.

Narayanamoorthy, S., Ramya, L., Kalaiselvan, S., Kureethara, J. V. & Kang, D.: "Use of DEMATEL and COPRAS Method to Select Best Alternative Fuel for Control of Impact of Greenhouse Gas Emissions", **Socio-Economic Planning Sciences,** 2021, 76, 100996.

Naseem, M. H., Yang, J. & Xiang, Z.: "Selection of Logistics Service Provider for the E-Commerce Companies in Pakistan Based on Integrated GRA-TOPSIS Approach", **Axioms,** Vol.10, No:3, 2021, 208.

Nazir, M.S. & Afza, T.: "Working Capital Requirements and the Determining Factors in Pakistan", **The IUP Journal of Applied Finance,** Vol.15, No:4, 2009, pp. 28-38.

Nguyen, P. H., Tsai, J. F., Kumar, V. A. G. & Hu, Y. C.: "Stock Investment of Agriculture Companies in the Vietnam Stock Exchange Market: An AHP Integrated with GRA-TOPSIS-MOORA Approaches", **Journal of Asian Finance, Economics and Business,** Vol.7, No:7, 2020, pp. 113-121.

Nguyen, P. H., Dang, T. T., Nguyen, K. A. & Pham, H. A.: "Spherical Fuzzy WASPAS-Based Entropy Objective Weighting for International Payment Method Selection", **Computers, Materials & Continua,** Vol.72, No:1, 2022, pp. 2055-2075.

Nguyen, H. Q., Nguyen, V. T., Phan, D. P., Tran, Q. H. & Vu, N. P.: "Multi-Criteria Decision Making in the PMEDM Process by Using MARCOS, TOPSIS, and MAIRCA Methods", **Applied Sciences,** Vol.12, No:8, 2022, 3720.

Niu, J., Huang, C., Li, C., Zou, B., Xu, L., Wang, J. & Liu, Z.: "A Comprehensive Method for Selecting Cutting Tool Materials", **The International Journal of Advanced Manufacturing Technology,** 110, 2020, pp. 229-240.

Nyimbili, P. H., Erden, T. & Karaman, H: "Integration of GIS, AHP and TOPSIS for Earthquake Hazard Analysis", **Natural Hazards,** 92, 2018, pp. 1523-1546.

Odabaşoğlu, Ş.: "Havayolu İşletmelerinde Entelektüel Sermayenin Piyasa Değeri-Defter Değeri Oranına Etkileri", **Journal of Aviation Research,** C.1, No:1, 2019, s. 1-23.

Okur, N. & Ercan, T.: "Evaluating Retail Efficiency Using DEA and AHP: A Case in The Turkish Apparel Retail Industry", **Journal of Fashion Marketing and Management: An International Journal,** Vol.27, No:1, 2022, pp. 138-160.

Oktaviani, D., Triayudi, A. & Solihati, I. D.: "Comparison of Weighted Product Method and Simple Additive Weighting in Scholarship Recipient Selection", **Jurnal Mantik,** Vol.3, No:4, 2020, pp. 337-347.

Olagunju, A., Adeyanju O.D. & Oluwayinka, O.S.: "Liquidity Management and Commercial Banks' Profitability in Nigeria", **Research Journal of Finance and Accounting,** Vol.2, No:7-8, 2011, pp. 24-38.

Opricović, S. & Tzeng, G. H.: "Multicriteria Planning of Post-Earthquake Sustainable Reconstruction", **Computer-Aided Civil and Infrastructure Engineering,** No:17, 2002, pp. 211-220.

Özaydın, G. & Karakul, A. K.: "ENTROPİ Tabanlı MAUT, SAW ve EDAS Yöntemleri ile Finansal Performans Değerlendirmesi", **Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi,** Vol.26, No:1, 2021, pp. 13-29.

Özdağoğlu, A., Keleş, M. K., Altınata, A. & Ulutaş, A.: "Combining Different MCDM Methods with the Copeland Method: An Investigation on Motorcycle Selection", **Journal of Process Management and New Technologies,** Vol.9, No:3-4, 2021, pp. 13-27.

Özşahin, İ., Özşahin, D. U., Uzun, B. & Mustapha, M. T.: "Introduction". **Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering,** (eds.) İ. Özşahin, D.U. Özşahin & B. Uzun, Elsevier, UK, 2021, pp. 1-2.

Özbey, S., Baskak, D., Saner, H. S., Yücesan, M., Erdoğan, M. & Gül, M.: "A Brief Review of the Applications of MCDA in Disaster Management". **Multi-Criteria Decision Analysis Case Studies in Disaster Management,** (eds.) M. Gül, M. Yücesan & M. Erdoğan**,** Taylor & Francis, UK, 2023, pp. 1-15.

Paelinck, J. H.: "Qualitative Multiple Criteria Analysis, Environmental Protection and Multiregional Development". In Papers of the Regional Science Association (Vol.36, No:1, 1976, pp. 59-74). Springer-Verlag.

Pamučar, D., Vasin, L. & Lukovac, V.: "Selection of Railway Level Crossings for Investing in Security Equipment Using Hybrid DEMATEL-MARICA Model", **XVI. Scientific-Expert Conference on Railways RAILCON '14.** 9th-10th October 2014, Niš, Serbia.

Pamučar, D. & Ćirović, G.: "The Selection of Transport and Handling Resources in Logistics Centers Using Multi-Attributive Border Approximation Area Comparison (MABAC)", **Expert Systems with Applications,** Vol.42, 2015, pp. 3016-3028.

Pamučar, D., Petrović, I. & Ćirović, G.: "Modification of the Best–Worst and MABAC Methods: A Novel Approach Based on Interval-Valued Fuzzy-Rough Numbers", **Expert Systems with Applications,** 91, 2018, pp. 89-106.

Pamučar, D., Stević, Ž. & Zavadskas, E. K.: "Integration of Interval Rough AHP and Interval Rough MABAC Methods for Evaluating University Web Pages", **Applied Soft Computing,** 67, 2018, pp. 141-163.

Pamucar, D., Chatterjee, K. & Zavadskas, E. K.: "Assessment of Third-Party Logistics Provider Using Multi-Criteria Decision-Making Approach Based on Interval Rough Numbers", **Computers & Industrial Engineering,** 127, 2019, pp. 383-407.

Pamučar, D. S., Ćirović, G. & Božanić, D.: "Application of Interval Valued Fuzzy-Rough Numbers in Multi-Criteria Decision Making: The IVFRN-MAIRCA Model", **Yugoslav Journal of Operations Research,** Vol.29, No:2, 2019, pp. 221-247.

Pamucar, D., Deveci, M., Canıtez, F., & Lukovac, V.: "Selecting An Airport Ground Access Mode Using Novel Fuzzy LBWA-WASPAS-H Decision Making Model", **Engineering Applications of Artificial Intelligence,** 93, 2020, 103703.

Pamucar, D. & Görçün, Ö. F.: "Evaluation of the European Container Ports Using A New Hybrid Fuzzy LBWA-CoCoSo'B Techniques", **Expert Systems with Applications,** 2022, 203, 117463.

Pamucar, D., Macura, D., Tavana, M., Božanić, D. & Knežević, N.: "An Integrated Rough Group Multicriteria Decision-Making Model for the Ex-Ante Prioritization of Infrastructure Projects: The Serbian Railways Case", **Socio-Economic Planning Sciences,** 2022, 79, 101098.

Pavolová, H., Bakalár, T., Tokarčík, A., Kozáková, Ľ. & Pastyrčák, T.: "An Economic Analysis of Brownfield and Greenfield Industrial Parks Investment Projects: A Case Study of Eastern Slovakia", **International Journal of Environmental Research and Public Health,** Vol.18, No:7, 3472, 2021.

Peng, X. & Huang, H.: "Fuzzy Decision Making Method Based on CoCoSo with Critic for Financial Risk Evaluation", **Technological and Economic Development of Economy,** Vol.26, No:4, 2020, pp. 695-724.

Peng, C., Feng, D. & Guo, S.: "Material Selection in Green Design: A Method Combining DEA and TOPSIS", **Sustainability,** Vol.13, No:10, 2021, 5497.

Petroutsatou, K., Ladopoulos, I. & Nalmpantis, D.: **Hierarchizing the Criteria of Construction Equipment Procurement Decision Using the AHP Method.** *IEEE Transactions on Engineering Management,* 2021.

Pınar, A., Babak Daneshvar, R. & Özdemir, Y. S.: "q-Rung Orthopair Fuzzy TOPSIS Method for Green Supplier Selection Problem", **Sustainability,** Vol.13, No:2, 2021, 985.

Pineda, P. J. G., Liou, J. J., Hsu, C. C. & Chuang, Y. C.: "An Integrated MCDM Model for Improving Airline Operational and Financial Performance", **Journal of Air Transport Management,** 68, 2018, pp. 103-117.

Polat, U.: "Classifying Environmental Significance Levels of Production-Oriented Operational Activities with F-ARAS and F-MOORA Methods", **Integrated Environmental Assessment and Management,** Vol.19, No:3, 2022, pp.763-774.

Polat, G. & Bayhan, H. G.: "Selection of HVAC-AHU System Supplier with Environmental Considerations Using Fuzzy EDAS Method", **International Journal of Construction Management,** Vol.22, No:10, 2022, pp. 1863-1871.

Poongavanam, G., Sivalingam, V., Prabakaran, R., Salman, M. & Kim, S. C.: "Selection of the Best Refrigerant for Replacing R134a in Automobile Air Conditioning System Using Different MCDM Methods: A Comparative Study", **Case Studies in Thermal Engineering**, 2021, 27, 101344.

Prabhu, S. R. & Ilangkumaran, M.: "Selection of 3D Printer Based on FAHP Integrated with GRA-TOPSIS", **International Journal of Materials and Product Technology,** Vol.58, No:2-3, 2019, pp. 155-177.

Prajapati, H., Kant, R. & Shankar, R.: "Prioritizing the Solutions of Reverse Logistics Implementation to Mitigate Its Barriers: A Hybrid Modified SWARA and WASPAS Approach", **Journal of Cleaner Production,** 240, 2019, 118219.

Puška, A., Stević, Ž., & Pamučar, D.: "Evaluation and Selection of Healthcare Waste Incinerators Using Extended Sustainability Criteria and Multi-Criteria Analysis Methods." **Environment, Development and Sustainability,** 24, 2021, pp. 11195-11225.

Puška, A., Božanić, D., Nedeljković, M. & Janošević, M.: "Green Supplier Selection in An Uncertain Environment in Agriculture Using A Hybrid MCDM Model: Z-Numbers–Fuzzy LMAW–Fuzzy CRADIS Model", **Axioms,** Vol.11, No:9, 2022, 427.

Puška, A., Nedeljković, M., Šarkoćević, Ž., Golubović, Z., Ristić, V. & Stojanović, I.: "Evaluation of Agricultural Machinery Using Multi-Criteria Analysis Methods", **Sustainability,** Vol.14, No:14, 2022, 8675.

Puška, A., Stević, Ž. & Pamučar, D.: "Evaluation and Selection of Healthcare Waste Incinerators Using Extended Sustainability Criteria and Multi-Criteria Analysis Methods", **Environment, Development and Sustainability,** 2022, pp. 1-31.

Putra, E., Hidayatuloh, S., Nguyen, P. T., Sasmita, K. & Wibowo, M. C.: "Decision Support System for Proposing Scholarship Recipients to Best Students Using SAW", **International Journal of Control and Automation,** Vol.13, No:2, 2020, pp. 103-109.

Putro, S. S., Adiputra, F., Rochman, E. M. S., Rachmad, A., Syakur, M. A. & Seta, S. B.: "Comparison of SAW and WP Methods to Determine the Best Agricultural Land", **Commun. Math. Biol. Neurosci.,** 49, 2021, pp. 1-15.

Raju, S. S., Murali, G. B. & Patnaik, P. K.: "Ranking of Al-CSA Composite by MCDM Approach Using AHP–TOPSIS and MOORA Methods", **Journal of Reinforced Plastics and Composites,** Vol.39, No:19-20, 2020, pp. 721-732.

Ramadiani, R., Ramadhani, B., Arifin, Z., Jundillah, M. L. & Azainil, A.: "Decision Support System for Determining Chili Land Using Weighted Product Method", **Bulletin of Electrical Engineering and Informatics,** Vol.9, No:3, 2020, pp. 1229-1237.

Ramezani, E., Montazeri, M. & Montazeri, Z.: "A Study on Prioritizing Typical Women's Entrepreneur Characteristics", **Management Science Letters,** Vol.4, No:6, 2014, pp. 1271-1278.

Roozbahani, A., Ghased, H. & Shahedany, M. H.: "Inter-Basin Water Transfer Planning with Grey COPRAS and Fuzzy COPRAS Techniques: A Case Study in Iranian Central Plateau", **Science of the Total Environment,** 2020, 726, 138499.

Qiu, N., Jin, Z., Liu, J., Fu, L., Chen, Z. & Kim, N. H.: "Hybrid Multi-Objective Robust Design Optimization of A Truck Cab Considering Fatigue Life", **Thin-Walled Structures,** 162, 107545, 2021.

Raheja, S., Obaidat, M. S., Kumar, M., Sadoun, B. & Bhushan, S.: "A Hybrid MCDM Framework and Simulation Analysis for the Assessment of Worst Polluted Cities", **Simulation Modelling Practice and Theory,** 2022, 118, 102540.

Rana, S. C. & Patel, J. N.: "Selection of Best Location for Small Hydro Power Project Using AHP, WPM and TOPSIS Methods", **ISH Journal of Hydraulic Engineering,** Vol.26, No:2, 2018, pp. 173-178.

Rani, P., Mishra, A. R. & Pardasani, K. R.: "A Novel WASPAS Approach for Multi-Criteria Physician Selection Problem with Intuitionistic Fuzzy Type-2 Sets", **Soft Computing,** 24, 2020, pp. 2355-2367.

Rani, P., Mishra, A. R., Ansari, M. D. & Ali, J.: "Assessment of Performance of Telecom Service Providers Using Intuitionistic Fuzzy Grey Relational Analysis Framework (IF-GRA)", **Soft Computing,** 25, 2021, pp. 1983-1993.

Rani, P., Mishra, A. R., Saha, A., Hezam, I. M. & Pamucar, D.: "Fermatean Fuzzy Heronian Mean Operators and MEREC-Based Additive Ratio Assessment Method: An Application to Food Waste Treatment Technology Selection", **International Journal of Intelligent Systems,** Vol.37, No:3, 2022, pp. 2612-2647.

Rao, S. H., Kalvakolanu, S. & Chakraborty, C.: "Integration of ARAS and MOORA MCDM Techniques for Measuring the Performance of Private Sector Banks in India", **International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems,** Vol.29, No:Suppl 2, 2021, pp. 279-295.

Rashid, C.A.: "Efficiency of Financial Ratios Analysis for Evaluating Companies' Liquidity", **International Journal of Social Sciences & Educational Studies,** Vol.4, No:4, 2018, pp. 110-123.

Ren, L., Zhang, Y., Wang, Y. & Sun, Z.: "Comparative Analysis of a Novel M-TOPSIS Method and TOPSIS", **Applied Mathematics Research Express,** Vol.2007, 2007, pp. 1-10.

Rezaei, J.: "Best-Worst Multi-Criteria Decision-Making Method", **Omega,** No:53, 2015, pp. 49-57.

Robinson, T.R., Henry, E., Pirie, W.L. & Broihahn, M.A.: **International Financial Statement Analysis,** 2015, 3rd ed., NJ: Wiley.

Roy, B.: "The Outranking Approach and The Foundations of ELECTRE Methods", **Theory and Decision,** No:31, 1991, pp. 47-93.

Roy, P. & Patro, B.: "Financial Performance Analysis of NBFC-Mfıs in India Using TOPSIS and IV-TOPSIS", **International Journal of Mathematical, Engineering and Management Sciences,** Vol.6, No:5, 2021, 1423.

Rostamzadeh, R., Esmaeili, A., Nia, A. S., Saparauskas, J. & Ghorabaee, M. K.: "A Fuzzy ARAS Method for Supply Chain Management Performance Measurement in SMEs Under Uncertainty", **Transformations in Business & Economics,** Vol.16, No:41A, 2017, pp. 319-348.

Roszkowska, E. & Kacprzak, D.: "The Fuzzy SAW and Fuzzy TOPSIS Procedures Based on Ordered Fuzzy Numbers", **Information Sciences,** 369, 2016, pp. 564-584.

Saleem, Q. & Rehman, R.U.: "Impacts of Liquidity Ratios On Profitability", **Interdisciplinary Journal of Research in Business,** Vol.1, No:7, 2011, pp. 95-98.

Saaty, T. L.: "A Scaling Method for Priorities in Hierarchical Structures", **Journal of Mathematical Psychology,** No:15, 1977, pp. 234-281.

Saaty, T. L.: "What Is The Analytic Hierarchy Process?". **Mathematical Models for Decision Support,** (ed.) T. L. Saaty, Springer, Berlin, 1988, pp. 109-121.

Saaty, T. L.: "Group Decision Making and the AHP". **Analytic Hierarchy Process,** (ed.) T. L. Saaty, Springer, Berlin, 1989, pp. 59-67.

Saaty, T. L.: "The Modern Science of Multicriteria Decision Making and Its Practical Applications: The AHP/ANP Approach", **Operations Research,** Vol. 61, No. 5, 2013, pp. 1101-1118.

Saaty, T. L. & Ergu, D.: "When Is A Decision-Making Method Trustworthy? Criteria for Evaluating Multi-Criteria Decision-Making Methods", **International Journal of Information Technology & Decision Making,** Vol.14, No:6, 2015, pp. 1171-1187.

Sahabuddin, M. & Khan, I.: "Multi-Criteria Decision Analysis Methods for Energy Sector's Sustainability Assessment: Robustness Analysis Through Criteria Weight Change", **Sustainable Energy Technologies and Assessments,** 47, 101380, 2021.

Sahoo, S. & Choudhury, B.: "Optimal Selection of An Electric Power Wheelchair Using An Integrated COPRAS and EDAS Approach Based on Entropy Weighting Technique", **Decision Science Letters,** Vol.11, No:1, 2022, pp. 21-34.

Sama, H. R., Kosuri, S. V. K. & Kalvakolanu, S.: "Evaluating and Ranking the Indian Private Sector Banks – A Multi-Criteria Decision-Making Approach", **Journal of Public Affairs,** Vol.22, No:2, 2022, e2419.

Sanver, R.: "Çoğunluk Yöntemi ve Condorcet Galipleri", **Ankara Üniversitesi SBF Dergisi,** C.55, No:3, 2000, s. 133-144.

Sarkar, A., Panja, S. C., Das, D. & Sarkar, B.: "Developing An Efficient Decision Support System for Non-Traditional Machine Selection: An Application of MOORA and MOOSRA", **Production & Manufacturing Research,** Vol.3, No:1, 2015, pp. 324-342.

Savitha, K. & Chandrasekar, C.: "Vertical Handover Decision Schemes Using SAW and WPM for Network Selection in Heterogeneous Wireless Networks", **Global Journal of Compuer Science and Technology,** Vol.11, No:9, 2011, pp. 18-24.

Senapati, T. & Chen, G.: "Picture Fuzzy WASPAS Technique and Its Application in Multi-Criteria Decision-Making", **Soft Computing,** Vol.26, No:9, 2022, pp. 4413-4421.

Serrai, W., Abdelli, A., Mokdad, L. & Hammal, Y.: "Towards An Efficient and A More Accurate Web Service Selection Using MCDM Methods", **Journal of Computational Science,** 22, 2017, 253-267.

Setyani, R. E. & Saputra, R.: "Flood-Prone Areas Mapping at Semarang City by Using Simple Additive Weighting Method", **Procedia-Social and Behavioral Sciences,** 227, 2016, pp. 378-386.

Seyedmohammadi, J., Sarmadian, F., Jafarzadeh, A. A., Ghorbani, M. A. & Shahbazi, F.: "Application of SAW, TOPSIS and Fuzzy TOPSIS Models in Cultivation Priority Planning for Maize, Rapeseed and Soybean Crops", **Geoderma**, 310, 2018, pp. 178-190.

Shanmugasundar, G., Sapkota, G., Čep, R., & Kalita, K.: "Application of MEREC in Multi-Criteria Selection of Optimal Spray-Painting Robot", **Processes,** Vol.10, No:6, 2022, pp. 1-16.

Shannon, C.E.: "A Mathematical Theory of Communication", **The Bell System Technical Journal,** Vol.27, No:3, 1948, pp. 379-423.

Shakouri, H., Nabaee, M. & Aliakbarisani, S.: "A Quantitative Discussion on the Assessment of Power Supply Technologies: DEA (Data Envelopment Analysis) and SAW (Simple Additive Weighting) as Complementary Methods for the "Grammar"", **Energy,** 64, 2014, pp. 640-647.

Shi, H., Quan, M. Y., Liu, H. C. & Duan, C. Y.: "A Novel Integrated Approach for Green Supplier Selection with Interval-Valued Intuitionistic Uncertain Linguistic Information: A Case Study in the Agri-Food Industry", **Sustainability,** Vol.10, No:3, 2018, 733.

Shivade, A. & Sapkal, S.: "Selection of Optimum Plant Layout Using AHP-TOPSIS and WASPAS Approaches Coupled with Entropy Method", **Decision Science Letters,** Vol.11, No:4, 2022, pp. 545-562.

Siew, L. W., Fai, L. K. & Hoe, L. W.: "Performance Evaluation of Construction Companies in Malaysia with Entropy-VIKOR Model", **Engineering Journal,** Vol.25, No:1, 2021, pp. 297-305.

Siew, L. W., Hoe, L. W., Bakar, M. A. & Fun, L. P.: "Data Driven Decision Analysis on the Performance of Electronic Companies with TOPSIS Model", **Journal of Advances in Information Technology**, Vol.13, No:1, 2022, pp. 61-66.

Simic, V., Karagöz, S., Deveci, M. & Aydın, N.: "Picture Fuzzy Extension of the CODAS Method for Multi-Criteria Vehicle Shredding Facility Location", **Expert Systems with Applications,** 2021, 175, 114644.

Simic, V., Gokasar, I., Deveci, M. & Karakurt, A.: "An Integrated CRITIC and MABAC Based Type-2 Neutrosophic Model for Public Transportation Pricing System Selection", **Socio-Economic Planning Sciences,** 2022, 80, 101157.

Singh, V.: "Significance of Working Capital Turnover Ratio: A Case Study of Bhel and Crompton Greaves", **International Journal of Management,** Vol.6, No:3, 2015, pp. 1-7.

Singh, R. K. & Modgil, S.: "Supplier Selection Using SWARA and WASPAS–A Case Study of Indian Cement Industry", **Measuring Business Excellence,** Vol.4, No:2, 2020, pp. 243-265.

Sliogeriene, J., Turskis, Z. & Streimikiene, D.: "Analysis and Choice of Energy Generation Technologies: The Multiple Criteria Assessment on the Case Study of Lithuania", **Energy Procedia,** Vol.32, 2013, pp. 11-20.

Sonar, H. C. & Kulkarni, S. D.: "An Integrated AHP-MABAC Approach for Electric Vehicle Selection", **Research in Transportation Business & Management,** 2021, 41, 100665.

Stanujkic, D. & Jovanovic, R.: "Measuring a Quality of Faculty Website Using ARAS Method. *In Proceeding of the International Scientific Conference Contemporary Issues in Business, Management and Education,* (2012, May). (Vol.545, p. 554).

Stanujkić, D., Đorđević, B. & Đorđević, M.: "Comparative Analysis of Some Prominent MCDM Methods: A Case of Ranking Serbian Banks", **Serbian Journal of Management,** Vol.8, No:2, 2013, pp. 213-241.

Stanujkic, D.: "Extension of the ARAS Method for Decision-Making Problems with Interval-Valued Triangular Fuzzy Numbers", **Informatica,** Vol.26, No:2, 2015, pp. 335-355.

Stanujkic, D., Popovic, G., Karabasevic, D., Meidute-Kavaliauskiene, I. & Ulutaş, A.: An Integrated Simple Weighted Sum Product Method–WISP. *IEEE Transactions on Engineering Management*, 2021.

Starčević, V., Petrović, V., Mirović, I., Tanasić, L. Ž., Stević, Ž. & Đurović Todorović, J.: "A Novel Integrated PCA-DEA-IMF SWARA-CRADIS Model for Evaluating the Impact of FDI on the Sustainability of the Economic System", **Sustainability,** Vol.14, No:20, 2022, 13587.

Stević, Ž., Durmić, E., Gajić, M., Pamučar, D. & Puška, A.: "A Novel Multi-Criteria Decision-Making Model: Interval Rough SAW Method for Sustainable Supplier Selection", **Information,** Vol.10, No:10, 2019, 292, pp. 1-21.

Stewart, T.A.: **Entelektüel Sermaye Kuruluşların Yeni Zenginliği.** N. Elhüseyni (Çev.). 1997, İstanbul: BZD Yayıncılık.

Stojčetović, B. V., Nikolić, Đ. M., Živković, Ž. D. & Bogdanović, D. M.: "SWOT-AHP Method Application to Determine Current Energy Situation and Define Strategies for Energy Security Improvement", **Thermal Science,** Vol.23, No:2 Part B, 2019, pp. 861-872.

Štreimikienė, D., Šliogerienė, J. & Turskis, Z.: "Multi-Criteria Analysis of Electricity Generation Technologies in Lithuania", **Renewable Energy,** 85, 2016, pp. 148-156.

Sun, R., Gong, Z., Gao, G. & Shah, A. A.: "Comparative Analysis of Multi-Criteria Decision-Making Methods for Flood Disaster Risk in The Yangtze River Delta", **International Journal of Disaster Risk Reduction,** 51, 101768, 2020.

Sunjoko, M.I. & Arilyn, E.J.: "Effects on Inventory Turnover, Total Asset Turnover, Fixed Asset Turnover, Current Ratio and Average Collection Period on Profitability", **Jurnal Bisnis dan Akuntansi,** Vol.18, No:1, 2016, pp. 9-83.

Şahin, A. & Sarı, E. B.: "Entropi Tabanlı TOPSIS ve VIKOR Yöntemleriyle BIST-İmalat İşletmelerinin Finansal ve Borsa Performanslarının Karşılaştırılması", **Journal of Accounting and Taxation Studies,** Vol.12, No:2, 2019, pp. 255-270.

Şenol, Z. & Ulutaş, A.: "Muhasebe Temelli Performans Ölçümleri ile Piyasa Temelli Performans Ölçümlerinin CRITIC ve ARAS Yöntemleriyle Değerlendirilmesi", **Finans Politik ve Ekonomik Yorumlar,** 641, 2018, pp. 983-1002.

Şenol, Z.: "Firma Performansı". **Teorik ve Ampirik Perspektifte Seçilmiş Finans Konuları,** (ed.) Eray Gemici, Nobel Bilimsel Eserler, Ankara, 2019, s. 279-298.

Tang, H., Shi, Y. & Dong, P.: "Public Blockchain Evaluation Using Entropy and TOPSIS", **Expert Systems with Applications,** 117, 2019, pp. 204-210.

TCMB: http://www3.tcmb.gov.tr/sektor/2017/Raporlar/oran.pdf. Erişim Tarihi: 08.03.2021.

TDK: https://sozluk.gov.tr/. Erişim Tarihi: 20.04.2021.

Temür, A. S.: "Borsa İstanbul Turizm Endeksi (XTRZM) Firmalarının Entropi Temelli ARAS, COPRAS ve TOPSIS Yöntemleri ile Finansal Performans Analizi", **Verimlilik Dergisi,** 2, 2022, pp. 182-210.

Tepeli, Y. & Özkoç, H.: "An Evaluation of Alternative Methods for Financial Performance: Evidence from Turkey (Istanbul Stock Exchange)", **International Journal of Contemporary Economics and Administrative Sciences,** Vol.10, No:2, 2020, pp. 356-377.

Terzioğlu, M. K., Kurt, E. S., Yaşar, A. & Köken, M.: "BİST100-Enerji Sektörü Finansal Performansı: SWARA-VIKOR ve SWARA-WASPAS.", **Alanya Akademik Bakış,** C.6, No: 2, 2022, pp. 2439-2455.

Thanh, N. V. & Lan, N. T. K.: "Solar Energy Deployment for the Sustainable Future of Vietnam: Hybrid SWOC-FAHP-WASPAS Analysis", **Energies,** Vol.15, No:8, 2022, 2798.

Timor, M.: **Analitik Hiyerarşi Prosesi,** 2011, İstanbul: Türkmen Kitabevi.

Titman, S., Keown, A.J. & Martin, J.D.: **Financial Management Principles and Applications,** 2018, 13th ed., UK: Pearson.

Topal, A.: "Çok Kriterli Karar Verme Analizi ile Elektrik Üretim Şirketlerinin Finansal Performans Analizi: Entropi Tabanlı CoCoSo Yöntemi", **Business & Management Studies: An International Journal,** C.9, No:2, 2021, pp. 532-546.

Torkayesh, A. E., Ecer, F., Pamucar, D. & Karamaşa, Ç.: "Comparative Assessment of Social Sustainability Performance: Integrated Data-Driven Weighting System and CoCoSo Model", **Sustainable Cities and Society,** 71, 2021, 102975.

Torkayesh, A. E., Pamucar, D., Ecer, F. & Chatterjee, P.: "An Integrated BWM-L-BWA-CoCoSo Framework for Evaluation of Healthcare Sectors in Eastern Europe", **Socio-Economic Planning Sciences,** 78, 2021, 101052.

Tran, T. T.: "Applying AHP in Evaluation of Vietnamese Commercial Banks", **International Journal of Analysis and Applications,** Vol.17, No:1, 2019, pp. 132-166.

Triantaphyllou, E. & Mann, S. H.: "An Examination of the Effectiveness of Multi-Dimensional Decision-Making Methods: A Decision-Making Paradox", **Decision Support Systems,** Vol.5, No:3, 1989, pp. 303-312.

Triantaphyllou, E.: **Multi-Criteria Decision Making Methods: A Comparative Study,** 2000, USA: Springer.

Tripathi, A. K., Agrawal, S. & Gupta, R. D.: **"**Comparison of GIS-Based AHP and Fuzzy AHP Methods for Hospital Site Selection: A Case Study for Prayagraj City, India", **GeoJournal,** 87, 2022, pp. 3507-3528.

Trung, D. D.: "Application of EDAS, MARCOS, TOPSIS, MOORA and PIV Methods for Multi-Criteria Decision Making in Milling Process", **Journal of Mechanical Engineering,** Vol.71, No:2, 2021, pp. 69-84.

Trung, N. Q., Thanh, N. V., Tinh, N. V. & Husain, S. T.: "Fuzzy Decision Model: Evaluating and Selecting Open Banking Business Partners", **CMC-Computers Materials & Continua,** Vol.72, No:3, 2022, pp. 4557-4570.

Tufan, C. & Kılıç, Y.: "Borsa İstanbul'da İşlem Gören Lojistik İşletmelerinin Finansal Performanslarının TOPSIS ve VIKOR Yöntemleriyle Değerlendirilmesi", **Cumhuriyet Üniversitesi İktisadi ve İdari Bilimler Dergisi,** C.20, No:1, 2019, pp. 119-137.

Turskis, Z. & Zavadskas, E. K.: "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,** Vol.25, No: 4, 2010, pp. 423-432.

Turskis, Z. & Zavadskas, E. K.: "A Novel Method for Multiple Criteria Analysis: Grey Additive Ratio Assessment (ARAS-G) Method", **Informatica,** Vol.21, No:4, 2010, pp. 597-610.

Tüminçin, K., Öztel, A. & Korkmaz, K.: "Entropi Tabanlı PROMETHEE Yöntemi ile Covid-19 Pandemisinin Finansal Performans Üzerindeki Etkisinin Araştırılması: Bilişim Sektörü Örneği", **Yönetim Ekonomi Edebiyat İslami ve Politik Bilimler Dergisi,** C.7, No:2, 2022, pp. 49-92.

Türk, A. & Özkök, M.: "Shipyard Location Selection Based on Fuzzy AHP and TOPSIS", **Journal of Intelligent & Fuzzy Systems,** Vol.39, No:3, 2020, pp. 4557-4576.

Türkoğlu, S. P. & Tuzcu, S. E.: "Assessing Country Performances During the COVID-19 Pandemic: A Standard Deviation Based Range of Value Method", **Operational Research in Engineering Sciences: Theory and Applications,** Vol.4, No:3, 2021, pp. 59-81.

Tzeng, G.-H. & Huang, J.-J.: **Multiple Attribute Decision Making Methods and Applications,** 2011, New York: Taylor & Francis.

Ullah, K., Witt, E., Lill, I., Banaitienė, N. & Statulevičius, M.: "Readiness Assessment for BIM-Based Building Permit Processes Using Fuzzy-COPRAS", **Journal of Civil Engineering and Management,** Vol.28, No:8, 2022, pp. 620-633.

Uludağ, A. S. & Ece, O.: "Türkiye'de Faaliyet Gösteren Mevduat Bankalarının Finansal Performanslarının TOPSIS Yöntemi Kullanılarak Değerlendirilmesi", **Finans Politik ve Ekonomik Yorumlar,** 637, 2018, pp. 49-80.

Ulutaş, A. & Karaköy, Ç.: "An Analysis of the Logistics Performance Index of EU Countries with An Integrated MCDM Model", **Economics and Business Review,** Vol.5, No:4, 2019, pp. 49-69.

Ulutaş, A., Topal, A. & Bakhat, R.: "An Application of Fuzzy Integrated Model in Green Supplier Selection", **Mathematical Problems in Engineering,** 2019, pp. 1-12.

Ulutaş, A.: "New Grey Integrated Model to Solve A Machine Selection Problem for A Textile Company", **Fibres & Textiles in Eastern Europe,** Vol.28, No:139, 2020, pp. 20-25.

Ulutaş, A., Karakuş, C. B. & Topal, A.: "Location Selection for Logistics Center with Fuzzy SWARA and CoCoSo Methods", **Journal of Intelligent & Fuzzy Systems,** Vol.38, No:4, 2020, pp. 4693-4709.

Ulutaş, A., Balo, F., Sua, L., Demir, E., Topal, A. & Jakovljević, V.: "A New Integrated Grey MCDM Model: Case of Warehouse Location Selection"**, Facta Universitatis, Series: Mechanical Engineering,** Vol.19, No:3, 2021, pp. 515-535.

Ulutaş, A., Balo, F., Sua, L., Karabasevic, D., Stanujkic, D. & Popovic, G.: "Selection of Insulation Materials with PSI-CRITIC Based CoCoSo Method", **Revista de la Construcción,** Vol.20, No:2, 2021, pp. 382-392.

Ulutaş, A., Popovic, G., Radanov, P., Stanujkic, D. & Karabasevic, D.: "A New Hybrid Fuzzy PSI-PIPRECIA-CoCoSo MCDM Based Approach to Solving the Transportation Company Selection Problem", **Technological and Economic Development of Economy,** Vol.27, No:5, 2021, pp.1227-1249.

Ulutaş, A., Stanujkic, D., Karabasevic, D., Popovic, G., Zavadskas, E. K., Smarandache, F. & Brauers, W. K: "Developing of A Novel Integrated MCDM MULTIMOOSRAL Approach for Supplier Selection", **Informatica,** Vol.32, No:1, 2021, pp. 145-161.

Ulutaş, A. & Karakuş, C. B.: "Location Selection for A Textile Manufacturing Facility with GIS Based on Hybrid MCDM Approach", **Industria Textila,** Vol.72, No:2, 2021, pp. 126-132.

Ulutaş, A., Balo, F., Sua, L., Demir, E., Topal, A. & Jakovljević, V.: "A New Integrated Grey MCDM Model: Case of Warehouse Location Selection", **Facta Universitatis, Series: Mechanical Engineering,** Vol.19, No:3, pp. 515-535.

Unutmaz Durmuşoğlu, Z. D.: "Assessment of Techno-Entrepreneurship Projects by Using Analytical Hierarchy Process (AHP), **Technology in Society,** 54, 2018, pp. 41-46.

Utami, W.B.: "Analysis of Current Ratio Changes Effect, Asset Ratio Debt, Total Asset Turnover, Return On Asset, And Price Earning Ratio in Predicting Growth Income by Considering Corporate Size in The Company Joined in Lq45 Index Year 2013-2016", **International Journal of Economics, Business and Accounting Research,** Vol.1, No:1, 2017, pp. 25-37.

Uzun, B., Özşahin, D. U. & Duwa, B.: "Theoretical Aspects of Multi-Criteria Decision-Making (MCDM) Methods". **Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering,** (eds.) D. U. Özşahin, H. Gökçekuş, B. Uzun & J. Lamoreaux, Springer, USA, 2021, pp. 7-15.

Üçüncü, T., Akyüz, K. C., Akyüz, İ., Bayram, B. Ç. & Ersen, N.: "Evaluation of Financial Performance of Paper Companies Traded at BIST with TOPSIS Method", **Kastamonu University Journal of Forestry Faculty,** Vol.18, No:1, 2018, pp. 92-98.

Ünel, F. B. & Yalpır, Ş.: "Valuations of Building Plots Using the AHP Method", **International Journal of Strategic Property Management,** Vol.23, No:3, 2019, pp. 197-212.

Ünvan, Y. A.: "Financial Performance Analysis of Banks with TOPSIS and Fuzzy TOPSIS Approaches**", Gazi University Journal of Science,** Vol.33, No:4, 2020, pp. 904-923.

Ünvan, Y. A. & Ergenç, C.: "Financial Performance Analysis with the Fuzzy COPRAS and Entropy-COPRAS Approaches", **Computational Economics,** Vol.59, No:4, 2022, pp. 1577-1605.

Qu, Z., Wan, C., Yang, Z. & Lee, P. T. W.: **Multi-Criteria Decision Making in Maritime Studies and Logistics,** "A Discourse of Multi-Criteria Decision Making (MCDM) Approaches", 2018, Switzerland: Springer.

Valipour, A., Yahaya, N., Md Noor, N., Antuchevičienė, J. & Tamošaitienė, J.: **"**Hybrid SWARA-COPRAS Method for Risk Assessment in Deep Foundation Excavation Project: An Iranian Case Study", **Journal of Civil Engineering and Management,** Vol.23, No:4, 2017, pp. 524-532.

Vassilev, V., Genova, K., & Vassileva, M.: "A Brief Survey of Multicriteria Decision Making Methods and Software Systems", **Cybernetics and Information Technologies,** Vol.5, No:1, 2005, pp. 3-13.

Velasquez, M. & Hester, P. T.: "An Analysis of Multi-Criteria Decision Making Methods", **International Journal of Operations Research,** Vol.10, No:2, 2013, pp. 56-66.

Venkatraman, N. & Ramanujam, V.: "Measurement of Business Performance in Strategy Research: A Comparison of Approaches", **Academy of Management Review,** Vol.11, No:4, 1986, pp. 801-814.

Vinh, N. Q., Do, Q. H. & Hien, L. M.: "An Integrated Fuzzy AHP and Fuzzy TOPSIS Approach in the Hotel Industry", **International Journal of Advanced and Applied Sciences,** Vol.9, No:10, 2022, pp. 135-148.

Wahlen, J.M., Baginski, S.P. & Bradshaw, M.T.: **Financial Reporting, Financial Statement Analysis, and Valuation,** 2017, 8th ed., Boston: Cengage.

Wang, P., Zhu, Z. & Wang, Y.: "A Novel Hybrid MCDM Model Combining the SAW, TOPSIS and GRA Methods Based on Experimental Design", **Information Sciences,** 345, 2016, pp. 27-45.

Wang, C. H., Lin, I. H. & Tsai, J. Y.: "Combining Fuzzy Integral and GRA Method for Evaluating the Service Quality of Fast-Food Restaurants", **Journal of Interdisciplinary Mathematics,** Vol.21, No:2, 2018, pp. 447-456.

Wang, X. & Duan, Q.: "Improved AHP–TOPSIS Model for the Comprehensive Risk Evaluation of Oil and Gas Pipelines", **Petroleum Science,** 16, 2019, pp. 1479-1492.

Wang, Z., Wang, M., He, R., Bhamra, R. S. & Yang, L.: "Gray Relational Analysis Based Assessment of Escalator Accident Risk in Subway Stations", **Journal of Intelligent & Fuzzy Systems,** Vol.41, No:3, 2021, pp. 4619-4628.

Wanke, P., Azad, M. A. K., Yazdi, A. K., Birau, F. R. & Spulbar, C. M.: "Revisiting CAMELS Rating System and the Performance of ASEAN Banks: A Comprehensive MCDM/Z-Numbers Approach", **IEEE Access,** 10, 2022, pp. 54098-54109.

Wardhani, A. K. & Lutfina, E.: "Application Culinary Decision Support System in Kudus City with Weighted Product Method Based on Mobile Phone", **Journal of Computer Science and Engineering (JCSE),** Vol.1, No:1, 2020, pp. 10-16.

Warrad, L. & Omari, R.A.: "The Impact of Turnover Ratios on Jordanian Services Sectors' Performance", **Journal of Modern Accounting and Auditing,** Vol.11, No:2, 2015, pp. 77-85.

Wątróbski, J., Jankowski, J., Ziemba, P., Karczmarczyk, A., & Zioło, M.: "Generalised Framework for Multi-Criteria Method Selection", **Omega,** No:86, 2019, pp. 107-124.

Wehrheim, M. & Schmitz, T.: **Jahresabschlussanalyse Instrumente, Bilanzpolitik, Kennzahlen,** 2005, 2. Auflage, Stuttgart: Kohlhammer.

Wen, Z., Liao, H., Zavadskas, E. K. & Al-Barakati, A.: "Selection Third-Party Logistics Service Providers in Supply Chain Finance by A Hesitant Fuzzy Linguistic Combined Compromise Solution Method", **Economic Research-Ekonomska Istraživanja,** Vol.32, No:1, 2019, pp. 4033-4058.

Wind, Y. & Saaty, T. L.: "Marketing Applications of the Analytic Hierarchy Process", **Management Science,** Vol.26, No:7, 1980, pp. 641-658.

Wu, H. H.: "A Comparative Study of Using Grey Relational Analysis in Multiple Attribute Decision Making Problems", **Quality Engineering,** Vol.15, No:2, 2002, pp. 209-217.

Wu, W. W. & Lee, Y. T.: "Developing Global Managers' Competencies Using the Fuzzy DEMATEL Method", **Expert Systems with Applications,** No:32, 2007, pp. 499-507.

Wu, Q., Liu, X., Qin, J., Zhou, L., Mardani, A. & Deveci, M.: "An Integrated Generalized TODIM Model for Portfolio Selection Based on Financial Performance of Firms", **Knowledge-Based Systems,** 249, 2022, 108794.

Xiang, Z., Naseem, M. H. & Yang, J.: "Selection of Coal Transportation Company Based on Fuzzy SWARA-COPRAS Approach", **Logistics,** Vol.6, No:1, 2022, pp. 1-15.

Xu, D., Cui, X. & Xian, H.: "An Extended EDAS Method with A Single-Valued Complex Neutrosophic Set and Its Application in Green Supplier Selection", **Mathematics,** Vol.8, No:2, 2020, 282.

Yager, R. R.: "On Ordered Weighted Averaging Aggregation Operators in Multicriteria Decisionmaking", **IEEE Transactions on Systems, Man, and Cybernetics,** Vol.18, No:1, 1988, pp. 183-190.

Gani, J., & Yakowitz, S.: "Modelling the Spread of HIV Among Intravenous Drug Users", **Mathematical Medicine and Biology: A Journal of the IMA,** Vol.10, No.1, 1993, pp. 51-65.

Yalçın, A. S., Kılıç, H. S. & Delen, D.: "The Use of Multi-Criteria Decision-Making Methods in Business Analytics: A Comprehensive Literature Review", **Technological Forecasting and Social Change,** No:174, 121193.

Yavuz, H., Öztel, A. & Yaşar, Ö. Z.: "Bulanık VIKOR Yöntemi ile Finansal Performans Analizi: Türk Kimya Sektöründe Bir Uygulama", **Yönetim ve Ekonomi Dergisi,** Vol.27, No:3, 2020, pp. 535-555.

Yazdani, M., Zarate, P., Zavadskas, E. K., & Turskis, Z.: "A Combined Compromise Solution (CoCoSo) Method for Multi-Criteria Decision-Making Problems", **Management Decision,** Vol.57, No:9, 2019, pp. 2501-2519.

Yazdani, M., Wen, Z., Liao, H., Banaitis, A. & Turskis, Z.: "A Grey Combined Compromise Solution (Cocoso-G) Method for Supplier Selection in Construction Mana-

gement", **Journal of Civil Engineering and Management,** Vol.25, No:8, 2019, pp. 858-874.

Yazdi, A. K., Hanne, T. & Gómez, J. C. O.: "Evaluating the Performance of Colombian Banks by Hybrid Multicriteria Decision Making Methods"**, Journal of Business Economics and Management,** Vol.21, No:6, 2020, pp. 1707-1730.

Yazdi, A. K., Mehdiabadi, A., Hanne, T., Sarfaraz, A. H. & Yazdian, F. T.: "Evaluating the Performance of Oil and Gas Companies by an Extended Balanced Scorecard and the Hesitant Fuzzy Best-Worst Method", **Mathematical Problems in Engineering,** 2022, pp. 1-21.

Yoe, C.: **Trade-Off Analysis Planning and Procedures Guidebook,** Report No. IWR 02-R-2, April 2002, U.S. Army Corps of Engineers Institute for Water Resources, Alexandria, VA.

Liu, Y., Yu, F. R., Li, X., Ji, H. & Leung, V. C.: "Blockchain and Machine Learning for Communications and Networking Systems", **IEEE Communications Surveys & Tutorials,** Vol.22, No:2, 2020, pp. 1392-1431.

Yücenur, G. N., Çaylak, Ş., Gönül, G. & Postalcıoğlu, M.: "An Integrated Solution with SWARA&COPRAS Methods in Renewable Energy Production: City Selection for Biogas Facility", **Renewable Energy,** 145, 2020, pp. 2587-2597.

Yücenur, G. N., Azakli, A. S., Bahadir, K., Tel, M. E. & Arabaci, S. N.: "Prioritisation of Industry 4.0 Implementations in Agricultural Sector with SWARA/EDAS", **International Journal of Sustainable Agricultural Management and Informatics,** Vol.8 No:3, 2022, pp. 326-344.

Zagorskas, J. & Turskis, Z.: "Setting Priority List for Construction Works of Bicycle Path Segments Based on Eckenrode Rating and ARAS-F Decision Support Method Integrated in GIS", **Transport,** Vol.35, No:2, 2020, pp. 179-192.

Zanakis, S. H., Solomon, A., Wishart, N. & Dublish, S.: "Multi-Attribute Decision Making: A Simulation Comparison of Select Methods", **European Journal of Operational Research,** Vol.107, No:3, 1998, pp. 507-529.

Zardari, N. H., Ahmed, K., Shirazi, S. M. & Yusop, Z. B.: **Weighting Methods and Their Effects on Multi-Criteria Decision Making Model Outcomes in Water Resources Management,** 2015, Malaysia: Springer.

Zavadskas, E. K., Kaklauskas, A. & Sarka, V.: "The New Method of Multicriteria Complex Proportional Assessment of Projects", **Technological and Economic Development of Economy,** Vol.1, No:3, 1994, pp. 131-139.

Zavadskas, E. K., Kaklauskas, A., Banaitis, A. & Kvederyte, N.: "Housing Credit Access Model: The Case for Lithuania", **European Journal of Operational Research,** Vol.155, 2004, pp. 335-352.

Zavadskas, E. K., Turskis, Z., Antucheviciene, J. & Zakarevicius, A.: "Optimization of Weighted Aggregated Sum Product Assessment", **Elektronika ir Elektrotechnika,** Vol.122, No:6, 2012, pp. 3-6.

Zavadskas, E. K., Baušys, R. & Lazauskas, M.: "Sustainable Assessment of Alternative Sites for the Construction of A Waste Incineration Plant by Applying WASPAS Method with Single-Valued Neutrosophic Set", **Sustainability,** Vol.7, No:12, 2015, pp. 15923-15936.

Zavadskas, E. K., Nunić, Z., Stjepanović, Ž. & Prentkovskis, O.: "A Novel Rough Range of Value Method (R-ROV) for Selecting Automatically Guided Vehicles (AGVs)", **Studies in Informatics and Control,** Vol.27, No:4, 2018, pp. 385-394.

Zavadskas, E.K, & Turskis Z.: "A New Logarithmic Normalization Method in Games Theory", **Informatica,** Vol.19 No:2, 2008, pp. 303-314.

Zavadskas, E. K. & Turskis, Z.: "A New Additive Ratio Assessment (ARAS) Method in Multicriteria Decision-Making", **Technological and Economic Development of Economy,** Vol.16, No:2, 2010, pp. 159-172.

Zavadskas, E. K. & Podvezko, V: "Integrated Determination of Objective Criteria Weights in MCDM", **International Journal of Information Technology & Decision Making,** Vol.15, No:2, 2016, pp. 1-17.

Zhang, H., Gu, C.-l., Gu, J.-w. & Zhang, Y.: "The Evaluation of Tourism Destination Competitiveness by TOPSIS & Information Entropy–A Case in the Yangtze River Delta of China", **Tourism Management,** 32, 2011, pp. 443-451.

Zhang, X., Wang, C., Li, E. & Xu, C.: "Assessment Model of Ecoenvironmental Vulnerability Based on Improved Entropy Weight Method**", The Scientific World Journal,** Vol.2014, 2014, pp. 1-7.

Zhang, S., Wei, G., Wang, R., Wu, J., Wei, C., Guo, Y. & Wei, Y.: "Improved CODAS Method Under Picture 2-Tuple Linguistic Environment and Its Application for A Green Supplier Selection", **Informatica,** Vol.32, No:1, 2021, pp. 195-216.

Zhang, H. & Wang, L.: "The Service Quality Evaluation of Agricultural E-Commerce Based on Interval-Valued Intuitionistic Fuzzy GRA Method", **Journal of Mathematics,** 2022, pp. 1-10.

Zhang, J., Zeng, X., Dong, M. & Yuan, H.: "A New Consumer Profile Definition Method Based on Fuzzy Technology and Fuzzy AHP", **AUTEX Research Journal,** Vol.22, No:2, 2022, pp. 208-216.

Zimmermann, H.-J.: **Fuzzy Set Theory – and Its Applications,** 2001, 4th ed., New York: Springer.

Zolfani, S. H., Aghdaie, M. H., Derakhti, A., Zavadskas, E. K. & Varzandeh, M. H. M.: "Decision Making on Business Issues with Foresight Perspective; An Application of New Hybrid MCDM Model in Shopping Mall Locating", **Expert Systems with Applications,** Vol.40, No:17, 2013, pp. 7111-7121.

Zolfani, S. H., Pourhossein, M., Yazdani, M. & Zavadskas, E. K.: **"**Evaluating Construction Projects of Hotels Based on Environmental Sustainability with MCDM Framework", **Alexandria Engineering Journal,** Vol.57, No:1, 2018, pp. 357-365.

Zolfani, H. S., Yazdani, M., Ebadi Torkayesh, A. & Derakhti, A.: "Application of A Gray-Based Decision Support Framework for Location Selection of A Temporary Hospital During COVID-19 Pandemic", **Symmetry,** Vol.12, No:6, 2020, 886.