Ali Emrouznejad

List of Publications by Citations

186 papers	**5,552** citations	**38** h-index	**67** g-index
202 ext. papers	**6,749** ext. citations	**4.2** avg, IF	**6.71** L-index

#	Paper	IF	Citations
186	Evaluation of research in efficiency and productivity: A survey and analysis of the first 30 years of scholarly literature in DEA. *Socio-Economic Planning Sciences*, **2008**, 42, 151-157	3.7	601
185	A survey and analysis of the first 40 years of scholarly literature in DEA: 1978 2016. *Socio-Economic Planning Sciences*, **2018**, 61, 4-8	3.7	481
184	A taxonomy and review of the fuzzy data envelopment analysis literature: Two decades in the making. *European Journal of Operational Research*, **2011**, 214, 457-472	5.6	279
183	The state of the art development of AHP (1979 2017): a literature review with a social network analysis. *International Journal of Production Research*, **2017**, 55, 6653-6675	7.8	144
182	Strategic logistics outsourcing: An integrated QFD and fuzzy AHP approach. *Expert Systems With Applications*, **2012**, 39, 10841-10850	7.8	131
181	Ordered Weighted Averaging Operators 1988 2014: A Citation-Based Literature Survey. *International Journal of Intelligent Systems*, **2014**, 29, 994-1014	8.4	122
180	DEA models for ratio data: Convexity consideration. *Applied Mathematical Modelling*, **2009**, 33, 486-498	4.5	114
179	A semi-oriented radial measure for measuring the efficiency of decision making units with negative data, using DEA. *European Journal of Operational Research*, **2010**, 200, 297-304	5.6	113
178	Assessing productive efficiency of banks using integrated Fuzzy-DEA and bootstrapping: A case of Mozambican banks. *European Journal of Operational Research*, **2016**, 249, 378-389	5.6	91
177	Power industry restructuring and eco-efficiency changes: A new slacks-based model in Malmquist Luenberger Index measurement. *Energy Policy*, **2014**, 68, 132-145	7.2	82
176	A mathematical model for dynamic efficiency using data envelopment analysis. *Applied Mathematics and Computation*, **2005**, 160, 363-378	2.7	82
175	A framework for measuring global Malmquist Luenberger productivity index with CO_2 emissions on Chinese manufacturing industries. *Energy*, **2016**, 115, 840-856	7.9	80
174	Using data envelopment analysis to measure the technical efficiency of public health centers in Kenya. *Journal of Medical Systems*, **2004**, 28, 155-66	5.1	80
173	COOPER-framework: A unified process for non-parametric projects. *European Journal of Operational Research*, **2010**, 207, 1573-1586	5.6	79
172	CO_2 emissions reduction of Chinese light manufacturing industries: A novel RAM-based global Malmquist Luenberger productivity index. *Energy Policy*, **2016**, 96, 397-410	7.2	74
171	A new slacks-based measure of Malmquist Luenberger index in the presence of undesirable outputs. *Omega*, **2015**, 51, 29-37	7.2	73
170	A performance assessment method for hospitals: the case of municipal hospitals in Angola. *Journal of Medical Systems*, **2008**, 32, 509-19	5.1	67

169	Social and financial efficiency of Islamic microfinance institutions: A Data Envelopment Analysis application. *Socio-Economic Planning Sciences*, **2015**, 50, 1-17	3.7	64
168	An extended minimax disparity to determine the OWA operator weights. *Computers and Industrial Engineering*, **2006**, 50, 312-316	6.4	64
167	Measurement of technical efficiency of public hospitals in Kenya: using Data Envelopment Analysis. *Journal of Medical Systems*, **2002**, 26, 39-45	5.1	63
166	Improving minimax disparity model to determine the OWA operator weights. *Information Sciences*, **2010**, 180, 1477-1485	7.7	62
165	Finding the optimal combination of power plants alternatives: A multi response Taguchi-neural network using TOPSIS and fuzzy best-worst method. *Journal of Cleaner Production*, **2018**, 203, 210-223	10.3	54
164	Fuzzy data envelopment analysis: A discrete approach. *Expert Systems With Applications*, **2012**, 39, 2263-2269	7.8	53
163	A new inverse DEA method for merging banks. *IMA Journal of Management Mathematics*, **2014**, 25, 73-87	1.4	53
162	A combined neural network and DEA for measuring efficiency of large scale datasets. *Computers and Industrial Engineering*, **2009**, 56, 249-254	6.4	53
161	Data envelopment analysis with classification and regression tree - a case of banking efficiency. *Expert Systems*, **2010**, 27, 231-246	2.1	53
160	Data envelopment analysis model for the appraisal and relative performance evaluation of nurses at an intensive care unit. *Journal of Medical Systems*, **2011**, 35, 1039-62	5.1	49
159	A non-parametric Data Envelopment Analysis approach for improving energy efficiency of grape production. *Energy*, **2013**, 63, 189-194	7.9	48
158	The origins, development and future directions of data envelopment analysis approach in transportation systems. *Socio-Economic Planning Sciences*, **2020**, 69, 100672	3.7	43
157	Fuzzy data envelopment analysis: An adjustable approach. *Expert Systems With Applications*, **2019**, 136, 439-452	7.8	40
156	Environmental performance evaluation of Chinese industrial systems: a network SBM approach. *Journal of the Operational Research Society*, **2018**, 69, 825-839	2	40
155	An integrated fuzzy clustering cooperative game data envelopment analysis model with application in hospital efficiency. *Expert Systems With Applications*, **2018**, 114, 615-628	7.8	40
154	Sensitivity analysis of energy inputs in crop production using artificial neural networks. *Journal of Cleaner Production*, **2018**, 197, 992-998	10.3	40
153	A dynamic network DEA model for accounting and financial indicators: A case of efficiency in MENA banking. *International Review of Economics and Finance*, **2019**, 61, 52-68	2.8	40
152	Fuzzy assessment of performance of a decision making units using DEA: A non-radial approach. *Expert Systems With Applications*, **2010**, 37, 5153-5157	7.8	39

151	The State of the Art in Fuzzy Data Envelopment Analysis. *Studies in Fuzziness and Soft Computing*, **2014**, 1-45	0.7	39
150	Performance evaluation of thermal power plants considering CO2 emission: A multistage PCA, clustering, game theory and data envelopment analysis. *Journal of Cleaner Production*, **2019**, 223, 641-650	10.3	38
149	A bi-objective weighted model for improving the discrimination power in MCDEA. *European Journal of Operational Research*, **2014**, 233, 640-650	5.6	38
148	Determining the relative importance of sustainability evaluation criteria of urban transportation network. *Sustainable Cities and Society*, **2019**, 47, 101493	10.1	38
147	Interval data without sign restrictions in DEA. *Applied Mathematical Modelling*, **2014**, 38, 2028-2036	4.5	37
146	Aggregating preference ranking with fuzzy Data Envelopment Analysis. *Knowledge-Based Systems*, **2010**, 23, 512-519	7.3	36
145	An overall profit Malmquist productivity index with fuzzy and interval data. *Mathematical and Computer Modelling*, **2011**, 54, 2827-2838		35
144	Estimation of potential gains from bank mergers: A novel two-stage cost efficiency DEA model. *Journal of the Operational Research Society*, **2017**, 68, 1045-1055	2	34
143	Optimal input/output reduction in production processes. *Decision Support Systems*, **2012**, 52, 742-747	5.6	32
142	MP-OWA: The most preferred OWA operator. *Knowledge-Based Systems*, **2008**, 21, 847-851	7.3	32
141	A novel inverse DEA model with application to allocate the CO2 emissions quota to different regions in Chinese manufacturing industries. *Journal of the Operational Research Society*, **2019**, 70, 1079-1090	2	32
140	Eco-efficiency considering the issue of heterogeneity among power plants. *Energy*, **2016**, 111, 722-735	7.9	31
139	Flexible measures in production process: A DEA-based approach. *RAIRO - Operations Research*, **2011**, 45, 63-74	2.2	31
138	Hospital performance: Efficiency or quality? Can we have both with IT?. *Expert Systems With Applications*, **2015**, 42, 5390-5400	7.8	30
137	Is ICT the Key to Development?. *Journal of Global Information Management*, **2010**, 18, 66-83	1.9	30
136	Carbon efficiency evaluation: An analytical framework using fuzzy DEA. *European Journal of Operational Research*, **2016**, 253, 428-440	5.6	29
135	Economic Efficiency of smallholder maize producers in Western Kenya: a DEA meta-frontier analysis. *International Journal of Operational Research*, **2009**, 4, 250	0.9	29
134	Multi-criteria logistics distribution network design using SAS/OR. *Expert Systems With Applications*, **2009**, 36, 7288-7298	7.8	29

133	An alternative measure of the ICT-Opportunity Index. *Information and Management*, **2010**, 47, 246-254	6.6	29
132	Improving energy efficiency considering reduction of CO_2 emission of turnip production: A novel data envelopment analysis model with undesirable output approach. *Journal of Cleaner Production*, **2018**, 187, 605-615	10.3	28
131	Allocating the fixed cost: an approach based on data envelopment analysis and cooperative game. *Annals of Operations Research*, **2019**, 274, 373-394	3.2	28
130	Advances in data envelopment analysis. *Annals of Operations Research*, **2014**, 214, 1-4	3.2	27
129	Eco-efficiency measurement and material balance principle: an application in power plants Malmquist Luenberger Index. *Annals of Operations Research*, **2017**, 255, 221-239	3.2	26
128	Measurement of productivity index with dynamic DEA. *International Journal of Operational Research*, **2010**, 8, 247	0.9	26
127	A comparative assessment of performance and productivity of health centres in Seychelles. *International Journal of Productivity and Performance Management*, **2007**, 57, 72-92	2.3	26
126	Modelling generalized firms'restructuring using inverse DEA. *Journal of Productivity Analysis*, **2017**, 48, 51-61	1.8	25
125	A fuzzy expected value approach under generalized data envelopment analysis. *Knowledge-Based Systems*, **2015**, 89, 148-159	7.3	25
124	Determining the optimal carbon tax rate based on data envelopment analysis. *Journal of Cleaner Production*, **2018**, 172, 900-908	10.3	25
123	Selecting the most preferable alternatives in a group decision making problem using DEA. *Expert Systems With Applications*, **2009**, 36, 9599-9602	7.8	25
122	Carbon emission abatement quota allocation in Chinese manufacturing industries: An integrated cooperative game data envelopment analysis approach. *Journal of the Operational Research Society*, **2020**, 71, 1259-1288	2	25
121	Classifying flexible measures in data envelopment analysis: A slack-based measure. *Measurement: Journal of the International Measurement Confederation*, **2013**, 46, 4100-4107	4.6	24
120	A modified Semi-Oriented Radial Measure for target setting with negative data. *Measurement: Journal of the International Measurement Confederation*, **2014**, 54, 152-158	4.6	23
119	Ranking efficient decision-making units in data envelopment analysis using fuzzy concept. *Computers and Industrial Engineering*, **2010**, 59, 712-719	6.4	23
118	Efficient management of health centres human resources in Zambia. *Journal of Medical Systems*, **2006**, 30, 473-81	5.1	23
117	Efficiency measurement in fuzzy additive data envelopment analysis. *International Journal of Industrial and Systems Engineering*, **2012**, 10, 1	0.4	22
116	A linear relational DEA model to evaluate two-stage processes with shared inputs. *Computational and Applied Mathematics*, **2017**, 36, 45-61		21

115	Observing choice of loan methods in not-for-profit microfinance using data envelopment analysis. *Expert Systems With Applications*, **2017**, 82, 278-290	7.8	21
114	Comprehensive performance evaluation of banking branches: A three-stage slacks-based measure (SBM) data envelopment analysis. *International Review of Economics and Finance*, **2019**, 64, 359-376	2.8	21
113	Minor and major consolidations in inverse DEA: Definition and determination. *Computers and Industrial Engineering*, **2017**, 103, 193-200	6.4	21
112	Productivity change using growth accounting and frontier-based approaches Evidence from a Monte Carlo analysis. *European Journal of Operational Research*, **2012**, 222, 673-683	5.6	21
111	Some clarifications on the DEA clustering approach. *European Journal of Operational Research*, **2011**, 215, 498-501	5.6	21
110	On the boundedness of the SORM DEA models with negative data. *European Journal of Operational Research*, **2010**, 206, 265-268	5.6	21
109	Fuzzy Analytic Hierarchy Process		20
108	A novel multilevel network slacks-based measure with an application in electric utility companies. *Energy*, **2018**, 158, 1120-1129	7.9	20
107	General and multiplicative non-parametric corporate performance models with interval ratio data. *Applied Mathematical Modelling*, **2012**, 36, 5506-5514	4.5	19
106	Optimizing search engines results using linear programming. *Expert Systems With Applications*, **2011**, 38, 11534-11537	7.8	19
105	Measuring the performance of neonatal care units in Scotland. *Journal of Medical Systems*, **2003**, 27, 315-324		19
104	Measurement efficiency and productivity in SAS/OR. *Computers and Operations Research*, **2005**, 32, 1665-1683		19
103	An alternative approach to decompose the potential gains from mergers. *Journal of the Operational Research Society*, **2018**, 69, 1793-1802	2	18
102	A new fuzzy additive model for determining the common set of weights in Data Envelopment Analysis. *Journal of Intelligent and Fuzzy Systems*, **2015**, 30, 61-69	1.6	18
101	COVID-19 Optimizer Algorithm, Modeling and Controlling of Coronavirus Distribution Process. *IEEE Journal of Biomedical and Health Informatics*, **2020**, 24, 2765-2775	7.2	18
100	Finding relevant search engines results: a minimax linear programming approach. *Journal of the Operational Research Society*, **2010**, 61, 1144-1150	2	17
99	Parametric aggregation in ordered weighted averaging. *International Journal of Approximate Reasoning*, **2011**, 52, 819-827	3.6	17
98	An adjustable fuzzy chance-constrained network DEA approach with application to ranking investment firms. *Expert Systems With Applications*, **2021**, 166, 113938	7.8	17

97	Public and private hospital services reform using data envelopment analysis to measure technical, scale, allocative, and cost efficiencies. *Health Promotion Perspectives*, **2012**, 2, 28-41	3.1	16
96	Fixed cost allocation based on the principle of efficiency invariance in two-stage systems. *European Journal of Operational Research*, **2020**, 283, 662-675	5.6	16
95	A note on the modeling the efficiency of top Arab banks. *Expert Systems With Applications*, **2009**, 36, 5741-5744	7.8	15
94	A hybrid egalitarian bargaining game-DEA and sustainable network design approach for evaluating, selecting and scheduling urban road construction projects. *Transportation Research, Part E: Logistics and Transportation Review*, **2019**, 130, 161-183	9	14
93	Technical Efficiency, Efficiency Change, Technical Progress and Productivity Growth in the National Health Systems of Continental African Countries. *Eastern Africa Social Science Research Review*, **2007**, 23, 19-40	0.3	14
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89	Type-2 TOPSIS: A Group Decision Problem When Ideal Values are not Extreme Endpoints. *Group Decision and Negotiation*, **2013**, 22, 851-866	2.5	13
88	Productivity Growth and Efficiency Measurements in Fuzzy Environments with an Application to Health Care. *International Journal of Fuzzy System Applications*, **2012**, 2, 1-35	0.6	13
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86	Notes on Classifying inputs and outputs in data envelopment analysis *Applied Mathematics Letters*, **2012**, 25, 1625-1628	3.5	12
85	An integer-valued data envelopment analysis model with bounded outputs. *International Transactions in Operational Research*, **2011**, 18, 741-749	2.9	12
84	Efficiency evaluation of parallel interdependent processes systems: an application to Chinese 985 Project universities. *International Journal of Production Research*, **2019**, 57, 5387-5399	7.8	12
83	Overall efficiency of operational process with undesirable outputs containing both series and parallel processes: A SBM network DEA model. *Expert Systems With Applications*, **2021**, 178, 115062	7.8	12
82	Neural network DEA for measuring the efficiency of mutual funds. *International Journal of Applied Decision Sciences*, **2014**, 7, 255	0.8	11
81	Evaluation efficiency of large-scale data set with negative data: an artificial neural network approach. *Journal of Supercomputing*, **2015**, 71, 2397-2411	2.5	10
80	Big Data: Who, What and Where? Social, Cognitive and Journals Map of Big Data Publications with Focus on Optimization. *Studies in Big Data*, **2016**, 1-16	0.9	10

79	A stepwise fuzzy linear programming model with possibility and necessity relations. *Journal of Intelligent and Fuzzy Systems*, **2013**, 25, 81-93	1.6	10
78	Measuring productive efficiency using Nerlovian profit efficiency indicator and metafrontier analysis. *Operational Research*, **2013**, 13, 271-287	1.6	10
77	Noise-pollution efficiency analysis of European railways: A network DEA model. *Transportation Research, Part D: Transport and Environment*, **2021**, 98, 102980	6.4	10
76	The value of indirect ties in citation networks: SNA analysis with OWA operator weights. *Information Sciences*, **2015**, 314, 135-151	7.7	9
75	Influential DMUs and outlier detection in data envelopment analysis with an application to health care. *Annals of Operations Research*, **2014**, 223, 95-108	3.2	9
74	A new DEA model for technology selection in the presence of ordinal data. *International Journal of Advanced Manufacturing Technology*, **2013**, 65, 1567-1572	3.2	9
73	A branch and efficiency algorithm for the optimal design of supply chain networks. *Annals of Operations Research*, **2017**, 253, 545-571	3.2	9
72	A combined machine learning algorithms and DEA method for measuring and predicting the efficiency of Chinese manufacturing listed companies. *Journal of Management Science and Engineering*, **2020**,	4.4	9
71	Ranking intervals for two-stage production systems. *Journal of the Operational Research Society*, **2020**, 71, 209-224	2	9
70	Efficiency measurement of cloud service providers using network data envelopment analysis. *IEEE Transactions on Cloud Computing*, **2019**, 1-1	3.3	8
69	An alternative formulation for the fuzzy assignment problem. *Journal of the Operational Research Society*, **2012**, 63, 59-63	2	8
68	Input/output deterioration in production processes. *Expert Systems With Applications*, **2011**, 38, 5822-5825	7.5	8
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66	Modeling Residential Energy Consumption. *Journal of Global Information Management*, **2021**, 29, 166-193	3.9	8
65	Using Weighted Goal Programming Model for Planning Regional Sustainable Development to Optimal Workforce Allocation: An Application for Provinces of Iran. *Social Indicators Research*, **2019**, 141, 1007-1035	2.7	8
64	Performance measurement with multiple interrelated variables and threshold target levels: Evidence from retail firms in the US. *European Journal of Operational Research*, **2016**, 250, 262-272	5.6	7
63	A note on DEA models in technology selection: an improvement of Karsak and Ahiska's approach. *International Journal of Production Research*, **2007**, 45, 2313-2316	7.8	7
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57	A binary particle swarm optimization algorithm for ship routing and scheduling of liquefied natural gas transportation. *Transportation Letters*, **2020**, 12, 223-232	2.1	6
56	Information representation of blockchain technology: Risk evaluation of investment by personalized quantifier with cubic spline interpolation. *Information Processing and Management*, **2021**, 58, 102571	6.3	6
55	Assessing the Queuing Process Using Data Envelopment Analysis: an Application in Health Centres. *Journal of Medical Systems*, **2016**, 40, 32	5.1	5
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51	Performance evaluation of organizations considering economic incentives for emission reduction: A carbon emission permit trading approach. *Energy Economics*, **2021**, 101, 105398	8.3	5
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49	Strategy Formulation and Service Operations in the Big Data Age: The Essentialness of Technology, People, and Ethics. *Studies in Big Data*, **2022**, 19-48	0.9	4
48	Bank stock performance during the COVID-19 crisis: does efficiency explain why Islamic banks fared relatively better?. *Annals of Operations Research*, **2022**, 1-39	3.2	4
47	Assessing the Relative Performance of Nurses Using Data Envelopment Analysis Matrix (DEAM). *Journal of Medical Systems*, **2018**, 42, 125	5.1	3
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45	Document Similarity: A New Measure Using OWA **2009**,		3
44	An overview of Total Factor Productivity estimations adjusted for pollutant outputs: an application to sugarcane farming. *International Journal of Environmental Technology and Management*, **2012**, 15, 1	0.6	3

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40	Managing Service Productivity Using Data Envelopment Analysis. *Profiles in Operations Research*, **2014**, 1-17	1	3
39	The Impact of Smart Meter Installation on Attitude Change Towards Energy Consumption Behavior Among Northern Ireland Households. *Journal of Global Information Management*, **2020**, 28, 21-37	1.9	3
38	A bargaining game model for performance assessment in network DEA considering sub-networks: a real case study in banking. *Neural Computing and Applications*, **2019**, 31, 6429-6447	4.8	3
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34	Data envelopment analysis model with decision makers preferences: a robust credibility approach. *Annals of Operations Research*,1	3.2	2
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24	SAS/OWA: ordered weighted averaging in SAS optimization. *Soft Computing*, **2010**, 14, 379-386	3.5	1
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19	Global optimisation for a developed price discrimination model: A signomial geometric programming-based approach. *Journal of the Operational Research Society*, **2021**, 72, 612-627	2	1
18	Fuzzy clustering of homogeneous decision making units with common weights in data envelopment analysis. *Journal of Intelligent and Fuzzy Systems*, **2021**, 40, 813-832	1.6	1
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16	A multi-period performance analysis of airlines: A game-SBM-NDEA and Malmquist Index approach. *Research in Transportation Business and Management*, **2022**, 100801	2.8	1
15	A novel best-worst-method two-stage data envelopment analysis model considering decision makers' preferences: An application in bank branches evaluation. *International Journal of Finance and Economics*,	1.5	1
14	Evaluation of insurance companies considering uncertainty: A multi-objective network data envelopment analysis model with negative data and undesirable outputs. *Socio-Economic Planning Sciences*, **2022**, 101306	3.7	1
13	A genetic algorithm for solving bus terminal location problem using data envelopment analysis with multi-objective programming. *Annals of Operations Research*,1	3.2	0
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6	Estimating the Efficiency of Healthcare Facilities Providing HIV/AIDS Treatment in Zambia: A Data Envelopment Approach. *Profiles in Operations Research*, **2014**, 55-65	1
5	Measuring Spatio-temporal Efficiency: An R Implementation for Time-Evolving Units. *Computational Economics*, **2020**, 56, 843-864	1.4
4	The Impact of Smart Meter Installation on Attitude Change Towards Energy Consumption Behavior Among Northern Ireland Households **2021**, 925-943	
3	The Role of Composite Indices in International Economic Diplomacy **2022**, 1-17	
2	Balanced performance assessment under uncertainty: an integrated CSW-DEA and balanced scorecard (BSC). *Annals of Operations Research*,1	3.2
1	Data Envelopment Analysis: Recent Developments and Challenges **2022**, 307-350	