

Recent trends in Management and Commerce Vol: 1(2), 2020 REST Publisher ISBN: 978-81-936097-6-7



Website: http://restpublisher.com/book-series/rmc/

Evaluation Based on Distance from Average Solution (EDAS) Method for Sustainable Information Society

Vinod Israni

SSt College of Arts and Commerce, Maharashtra, India. Email: vinodisrani@sstcollege.edu.in

Abstract. The purpose of this research Presenting a sustainable information society Conceptual model. In the context of the information society of a sustainable information society. The essence is presented Second, different types of events and static information Trends in social development are identified and detected. Third, consistent information Assumptions for the social model are formulated. The model Special attention is paid to presentation. Fish sustainability information programs play an important role. Accepting the recommendations of this review to minimize consumer confusion and Among the benefits of sustainable purchasing Confidence should be increased. Companies with poor quality financial statements, To overcome the lack of good quality financial information Standardized as a mechanism of legitimacy Can reveal static information. EDAS method we propose Based on A new ambiguity A dynamic MCGDM approach. In practice of the proposed approach, Decision makers' alternatives, criteria and Collections may change at different times. In a sustainable information society The EDAS system is based on group decision-making extended to complications. The effectiveness of the proposed approach and to check practicality, Asset Management Company Selection An illustrative example is given. EDAS method for using Sustainable Information Society. The alternatives are Environmental Sustainability, technological sustainability, economic sustainability, political sustainability and cultural sustainability. The Evaluation parameter is Biodiversity, utility, wealth for all, participation and wisdom for all. Cultural sustainability is the first rank and Ecological sustainability is the lowest rank. The final result is Cultural sustainability is the first rank and Ecological sustainability is the lowest rank. Keywords: Sustainable Information Society, MCDM,

Introduction

A novel decision-making approach, As proposed by Korabe et al EDAS method. To solve MCGTM problems modified in the present work. EDAS stands for conflicting criteria A useful and easily calculable method, Also it is a multi-criteria inventory classification and Used in supplier selection. In recent years Although EDAS has not been studied extensively, Multiple users The results of TOPSIS, Simple combination weight, VIKOR and have proven to be highly consistent with other methods. Although research is limited, Manage and deal with MCDM issues We use EDAS tool Like TOPSIS and VIKOR of traditional reconciliation methods Originality and simplicity are issues. Then, based on EDAS, we propose an extended EDAS. Evaluative Informative Linguistics Shown Expected functions are also considered, in the form of Neutrosopic Numbers (LNNs). This method is particularly useful when there are In the MCDM problem Conflicting criteria. Similar to VIKOR and TOPSIS methods, distances from positive and negative optimal solutions are calculated in EDAS. However, the EDAS method was positive and negative based on distance between positive and negative are not ideal solutions. The best determined to be large PDA and low NDA. The EDAS method was extended for the incorporating of the relativity completeness of experts the independence. This freedom gives professionals more freedom to assign values to subgroups. The proposed neurotrophic EDAS method than other fuzzy set types Includes all the benefits of neurotrophic supplements. To handle MCGDM issues EDAS method is proposed. Motivation to use BFSs, In complex decision-making processes of experienced DMs Bilateral judgment comes from the linguistic ambiguity of thinking. Apart from the TrBF-EDAS method, dead and cell count, In dealing with cell viability Able to perform image-based assessments Regarding selection of medical device applicability this method is realized. A MADM method was applied to the problem of inventory classification through positive and from the mean solution. In 2016, Ghorabaee EDAS method Extending to ambiguous contexts, Used for supplier selection issues. Solid waste disposal sites It was used to evaluate. The hospital selection issues and investigated its use. Zhang et al. For MAGDM to replace the EDAS system 2-tuple used linguistic information.

Sustainable Information Society

The purpose of this research is a sustainable information society Presenting a conceptual model. First, sustainable information is The essence of society is provided in the information environment of community feedback. In providing a sample of a sustainable information society Special attention is given. with a discussion of findings and future work The article concludes. To achieve the research objective, such as action research and logical deduction A critical review of the literature. On the relationship between FRQ and standardized sustainability information disclosure There is no consensus. On the one hand, following Francis et al. to replace lack of good quality financial information In the sense that it can be expressed as a formal means This relationship may be reciprocal. On the other hand, Since CSR has incentives to disclose information, This relationship can be complementary. A company online refused to use the discussion forum. Because of the concerns of company shareholders Respond with action, Another company is its 'stakeholders' as online commenters suggested that there is no need to be. Hence, to legitimize corporate activity Companies are recommended to provide online sustainability information. For example, Cooper (2003) and Williams and Bei (1999). Online corporate sustainability information is a positive Can promote corporate image, Selected sustainable development issues and Regarding reviews An unedited opinion may be expressed Or they argue the government investigations can be diverted. Coupland (2006) Language, presentation and location of online corporate sustainability information and how the organization examines what helps it construct its own 'legitimate' image. PWC (2007a,b) 83% of FTSE 350 companies in their annual report Announced to include a specific corporate responsibility statement. In sustainability sections on corporate websites Eco-screensavers, games, 'ecovoyages' and 'ecoadventures' such as Gimmicks have been detected. Overall, online content is designed. This suggests that it may not be used to provide a serious indication of corporate influence on sustainable development. For example, Adams and Frost will search online for corporate sustainability information For a company, among all online users They found that 50% did not go beyond the first web page. Political Economy, Legal Theory and Consistent with the theoretical perspectives offered by organizational theory, Instead of specific website users In order to benefit the reporting entity This suggests that online corporate sustainability information may be provided.

Material and Methods

Introduced by KeshaversKorabe, Zavatskas, Olfat, and Tarski's An efficient MCTM method. In this section, dynamic fuzzy EDAS is called Based on EDAS system. A new approach is proposed. The EDAS system introduced by Keshawar'sKorabe Hospital in relation to the quality of healthcare Proposed HF-EDAS-based service. Service quality of hospitals How to basically rate This study shows the method of hesitant fuzzy sets (HFSs) from the mean solution (EDAS) method. Three private competing hospitals And to choose the most suitable one There are various conflicting criteria. Despite its vital importance to human life, Evaluating service quality By health care providers has been largely neglected. In the purpose of this study, Service quality parameters of the four SERVQUAL dimensions are determined in light and Their significance levels are obtained using the HF-EDAS method. On multiple dimensions of perceived service quality Ratings were obtained from three decision-makers, This includes responsiveness, reliability, empathy, and Includes determination. Introduction to HFSs is given. Evaluates the EDAS method and illustrates our proposed method. In combination with MAGDM and PLTS Regarding the use of the EDAS system There is currently no research. Therefore, it is necessary to extend the EDAS technique in the context of PLTS, And the ultimate goal is to solve MAGDM. The planning of the manuscript is summarized as follows EDAS technique extended by PLTS, PL-EDAS is sophisticated having the characteristics of PLTSs Provided to deal with decision making problems Calculation example for green supplier selection is carried out to test the designed approach. Ecological sustainability: Potential for environmental problems ARE considered the solution represents an initial attempt to understand the relationship between IS and environmental sustainability. However, for environmental issues It is not a panacea. In fact, if they are not properly managed or if not sorted Add environmental degradation. An information infrastructure consumes considerable energy. Disposal of e-waste Cause serious land pollution. For a future research problem As a contributor Let's explore IS. A more complete picture of IS and environmental sustainability can be developed. Technological sustainability: A Systems Approach to Technology Sustainability Assessment (SATSA) For renewable energy technologies in developing countries Aims to provide an improved assessment procedure model. Technology development projects To achieve the desired stability performance The framework will also ensure that a wide range of considerations are included. By framework, for technical sustainability assessment The basis for using computer dynamics modeling as a methodology is explored, And using renewable energy technologies Guiding steps for model development are provided. Economic sustainability: The environment of the economic system, social and sometimes institutional sustainability, Economic stability of the economy is rare. To a lesser extent, criteria of economic sustainability have been developed for other dimensions. Social Security Institutions or of Environmental Protection Acts As economic sustainability is a major issue of policy debate It is very surprising. Political sustainability: "Political stability" means The stability of any public policy, Coherence and integrity refers to the ability to maintain over time. And amidst the inevitable vagaries of politics It basically achieves the promised goals. In general, political stability is a necessary condition for the success of a policy. No matter how clever its design. If reform is in constant danger of weakening It won't work. Cultural sustainability: Meaning of cultural sustainability In an attempt to distinguish it from social sustainability How we understand the concepts of culture and discourse and Within the sustainable development dialogue Research that illustrates how to address cultural sustainability. We describe the methodology and data.

	Biological diversity	Usability	Wealth for all	Participation of all	Wisdom
Ecological sustainability	45.87	40.76	55.86	60.60	57.09
Technological sustainability	41.83	53.86	53.09	52.97	43.75
Economic sustainability	57.78	51.67	62.09	48.98	64.98
Political sustainability	50.00	48.67	47.23	42.49	54.00
Cultural sustainability	46.90	58.45	42.75	52.86	51.97
AVj	48.47600	50.68200	52.20380	51.58000	54.35800

Analysis and Discussion

Table 1 shows the assessment of a sustainable information society using the analysis method in EDAS. Biodiversity, utility, wealth for all, participation and wisdom for all. Environmental sustainability, technological sustainability, economic sustainability, political sustainability and cultural sustainability are averaged in value.



FIGURE 1. Sustainable information society

Figure 1 shows the evaluation of a sustainable information society using the analysis method in EDAS. Environmental sustainability, technological sustainability, economic sustainability, political sustainability and cultural sustainability. Biodiversity, utility, wealth for all, participation and wisdom for all. Biological diversity average value of 48.47600, Usability average value of 50.68200, Wealth for all average value of 52.20380, Participation of all average value of 51.58000, Wisdom average value of 54.35800.

TABLE 2.	Positive	Distance from	m Average	(PDA)
----------	----------	---------------	-----------	-------

	Positive Distance from Average (PDA				
Ecological sustainability	0.00	0.00	0.00	0	0.00
Technological sustainability	0.00	0.06	0.00	0	0.20
Economic sustainability	0.19	0.02	0.00	0.05041	0.00
Political sustainability	0.03	0.00	0.10	0.17623	0.01
Cultural sustainability	0.00	0.15	0.18	0	0.04

Table 2 shows the Positive Distance from Average (PDA) in the Evaluation of a sustainable information society using the Analysis method in EDAS Biodiversity, utility, wealth for all, participation and wisdom for all. Environmental sustainability, technological sustainability, economic sustainability, political sustainability and cultural sustainability. E-Learning Environment, Webpage Connection, Learning Records, and Instruction Materials are seen all have Maximum Value.



FIGURE 2. Positive Distance from Average

TIDEE 5. Regative Distance from Average (1001)									
	Ne	Negative Distance from Average (NDA)							
Ecological sustainability	0.05376	0.19577	0.07004	0.17487	0.05026				
Technological sustainability	0.13710	0.00000	0.01698	0.02695	0.00000				
Economic sustainability	0.00000	0.00000	0.18936	0.00000	0.19541				
Political sustainability	0.00000	0.03970	0.00000	0.00000	0.00000				
Cultural sustainability	0.03251	0.00000	0.00000	0.02482	0.00000				

TABLE 3. Negative Distance from Average (NDA)

Table 3 shows the Negative Distance from Average (NDA) in the Evaluation of a sustainable information society using the Analysis method in EDAS Biodiversity, utility, wealth for all, participation and wisdom for all. Environmental sustainability, technological sustainability, economic sustainability, political sustainability and cultural sustainability. E-Learning Environment, Webpage Connection, Learning Records, and Instruction Materials are seen all have Maximum Value.



FIGURE 3. Negative Distance from Average

Figure 3shows the Negative Distance from Average (NDA) in the Evaluation of a sustainable information society using the Analysis method in EDAS Biodiversity, utility, wealth for all, participation and wisdom for all. Environmental sustainability, technological sustainability, economic sustainability, political sustainability and cultural sustainability. E-Learning Environment, Webpage Connection, Learning Records, and Instruction Materials are seen all have Maximum Value.

TABLE 4. Weightages							
			Weight				
Ecological sustainability	0.25	0.25	0.25	0.25	0.25		
Technological sustainability	0.25	0.25	0.25	0.25	0.25		
Economic sustainability	0.25	0.25	0.25	0.25	0.25		
Political sustainability	0.25	0.25	0.25	0.25	0.25		
Cultural sustainability	0.25	0.25	0.25	0.25	0.25		

Table 4 shows the	weight age used	for analysis.	We took the same	weight for all the	parameters for the anal	ysis.
		2		1		~

TABLE 5. Weight PDA								
		Weighted PDA						
Ecological sustainability	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
Technological sustainability	0.00000	0.01568	0.00000	0.00000	0.04879	0.06446		
Economic sustainability	0.04798	0.00487	0.00000	0.01260	0.00000	0.06546		
Political sustainability	0.00786	0.00000	0.02382	0.04406	0.00165	0.07738		
Cultural sustainability	0.00000	0.03832	0.04527	0.00000	0.01098	0.09457		

Table 5 shows the Weighted PDA SPi in the Evaluation of sustainable information society using the Analysis method in EDAS Analysis is shown the Table 2 and Table 4 in Multiple Value. Biodiversity, utility, wealth for all, participation and

wisdom for all. Environmental sustainability, technological sustainability, economic sustainability, political sustainability and cultural sustainability is seen as all Multiple Value.

		Weighted NDA				
Ecological sustainability	0.01344	0.04894	0.01751	0.04372	0.01256	0.13617
Technological sustainability	0.03427	0.00000	0.00424	0.00674	0.00000	0.04526
Economic sustainability	0.00000	0.00000	0.04734	0.00000	0.04885	0.09619
Political sustainability	0.00000	0.00992	0.00000	0.00000	0.00000	0.00992
Cultural sustainability	0.00813	0.00000	0.00000	0.00620	0.00000	0.01433

CADI E	1	M7-1-1-4	NIDA
ГАВЬЕ	· D.	weight	INDA

Table 6 shows the Weighted NDA SNi in the Evaluation of sustainable information society using the Analysis method in EDAS Analysis is shown the Table 2 and Table 4 in Multiple Value. Biodiversity, utility, wealth for all, participation and wisdom for all. Environmental sustainability, technological sustainability, economic sustainability, political sustainability and cultural sustainability is seen as all Multiple Value.

	NSPi	NSNi	ASi	Rank			
Ecological sustainability	0.00000	0.00000	0.00000	5			
Technological sustainability	0.68163	0.66766	0.67465	3			
Economic sustainability	0.69214	0.29362	0.49288	4			
Political sustainability	0.81823	0.92712	0.87267	2			
Cultural sustainability	1.00000	0.89476	0.94738	1			

TABLE 7. NSPiNSNi, Asi and Rank

Table 7 shows the Final Result of the Evaluation of a sustainable information society using the Analysis for the EDAS Method. NSPi in Entrepreneurs is calculated using Cultural sustainability as having the highest Value and Ecological sustainability as having the lowest value. NSNi is calculated using Political sustainability as having is Highest Value and Ecological sustainability as having the lowest value. ASi in calculated using the Cultural sustainability is having is Highest Value and Ecological sustainability is having is Highest Value.



FIGURE 4. Final Result of Evaluation of sustainable information society

Figure 4 shows the Final Result of the Evaluation of a sustainable information society using the Analysis for the EDAS Method. NSPi in Entrepreneurs is calculated using Cultural sustainability as having the highest Value and Ecological sustainability as having the lowest value. NSNi is calculated using Political sustainability as having is Highest Value and Ecological sustainability as having the lowest value. ASi in calculated using the Cultural sustainability is having is Highest Value and Ecological sustainability is having the lowest value.



FIGURE 5. Shows the Rank

Figure 5 Shows the Ranking for Evaluation of a sustainable information society. Cultural sustainability has the first rank whereas Ecological sustainability has the lowest rank.

Conclusion

To improve the sustainability performance of organizations, such as accounting, finance and marketing how other resources can be integrated with IT resources Sustainability information can be studied through social research. For example, with finance and accounting, Cross-disciplinary research performance measurement and Measures of sustainability impacts may be suggested. About what different metrics mean by marketing Research may also aim to provide transparency and "consumer education". For constant skill development of various types of IT resources and tentative proposals regarding possible contributions, Our research has produced Organizations' sustainability framework Addressing specific problems, with specific complementary resources By exploring how to bundle different types of IT resources Future research will expand on such insights. Theoretical and theoretical of sustainable information society development Help define practical implications. A comparative analysis with some existing methods was performed. The objective of using the EDAS method in MAGDM. First, a basic definition of PLNs and A short-distance formula are recommended. Next, in the real environment Inspired by the classical EDAS technique, To solve MAGDM problems Augmented EDAS method is introduced in PLTS and Its main feature is for all properties Emphasizes the closeness of the distance between the mean solution. The final result is the EDAS method for using Sustainability information society. Cultural sustainability is the first rank and Ecological sustainability is the lowest rank

References

- 1. Ziemba, Ewa. "The holistic and systems approach to the sustainable information society." Journal of Computer Information Systems 54, no. 1 (2013): 106-116.
- Donnellan, Brian, Charles Sheridan, and Edward Curry. "A capability maturity framework for sustainable information and communication technology." IT professional 13, no. 1 (2011): 33-40.
- Parkes, Graeme, James A. Young, Suzannah F. Walmsley, Rigmor Abel, Jon Harman, Peter Horvat, AudunLem, Alastair MacFarlane, Maarten Mens, and Conor Nolan. "Behind the signs—a global review of fish sustainability information schemes." Reviews in Fisheries Science 18, no. 4 (2010): 344-356.
- 4. Chowdhury, Gobinda. "Building environmentally sustainable information services: A green is research agenda." Journal of the American Society for Information Science and Technology 63, no. 4 (2012): 633-647.
- Martínez-Ferrero, Jennifer, Isabel M. Garcia-Sanchez, and Beatriz Cuadrado-Ballesteros. "Effect of financial reporting quality on sustainability information disclosure." Corporate social responsibility and environmental management 22, no. 1 (2015): 45-64.
- Rowbottom, Nicholas, and Andrew Lymer. "Exploring the use of online corporate sustainability information." In Accounting forum, vol. 33, no. 2, pp. 176-186. No longer published by Elsevier, 2009.
- 7. Dao, Viet, Ian Langella, and Jerry Carbo. "From green to sustainability: Information Technology and an integrated sustainability framework." The Journal of Strategic Information Systems 20, no. 1 (2011): 63-79.
- Haux, Reinhold. "Individualization, globalization and health–about sustainable information technologies and the aim of medical informatics." International journal of medical informatics 75, no. 12 (2006): 795-808.

- Chen, Adela JW, Marie-Claude Boudreau, and Richard T. Watson. "Information systems and ecological sustainability." Journal of systems and Information technology (2008).
- 10. Watson, Richard T., Marie-Claude Boudreau, and Adela J. Chen. "Information systems and environmentally sustainable development: energy informatics and new directions for the IS community." MIS quarterly (2010): 23-38.
- 11. de Camargo Fiorini, Paula, and Charbel José ChiappettaJabbour. "Information systems and sustainable supply chain management towards a more sustainable society: Where we are and where we are going." International Journal of Information Management 37, no. 4 (2017): 241-249.
- 12. Keshavarz-Ghorabaee, Mehdi, MaghsoudAmiri, EdmundasKazimierasZavadskas, ZenonasTurskis, and JurgitaAntucheviciene. "A dynamic fuzzy approach based on the EDAS method for multi-criteria subcontractor evaluation." Information 9, no. 3 (2018): 68.
- 13. Li, Ying-ying, Jian-qiang Wang, and Tie-li Wang. "A linguistic neutrosophic multi-criteria group decision-making approach with EDAS method." Arabian Journal for Science and Engineering 44, no. 3 (2019): 2737-2749.
- 14. KutluGündoğdu, Fatma, CengizKahraman, and HaticeNidaCivan. "A novel hesitant fuzzy EDAS method and its application to hospital selection." Journal of Intelligent & Fuzzy Systems 35, no. 6 (2018): 6353-6365.
- 15. Karaşan, Ali, and CengizKahraman. "A novel interval-valued neutrosophic EDAS method: prioritization of the United Nations national sustainable development goals." Soft Computing 22, no. 15 (2018): 4891-4906.
- 16. Kundakcı, Nilsen. "An integrated method using MACBETH and EDAS methods for evaluating steam boiler alternatives." Journal of Multi-Criteria Decision Analysis 26, no. 1-2 (2019): 27-34.
- 17. Zhan, Jianming, Haibo Jiang, and Yiyu Yao. "Covering-based variable precision fuzzy rough sets with PROMETHEE-EDAS methods." Information Sciences 538 (2020): 314-336.
- 18. Batool, Bushra, ShougiSulimanAbosuliman, Saleem Abdullah, and Shahzaib Ashraf. "EDAS method for decision support modeling under the Pythagorean probabilistic hesitant fuzzy aggregation information." Journal of Ambient Intelligence and Humanized Computing 13, no. 12 (2022): 5491-5504.
- 19. Feng, Xiangqian, Cuiping Wei, and Qi Liu. "EDAS method for extended hesitant fuzzy linguistic multi-criteria decision making." International Journal of Fuzzy Systems 20, no. 8 (2018): 2470-2483.