WEIGHTING OF MARKETING MIX ELEMENTS USING FUZZY ANALYTIC HIERARCHY PROCESS AND AREA BASED RANKING OF FUZZY NUMBERS

Author(s): Fareed Ahmad1, Ansar Ahmed Khan2, Mirza Mahmood Baig3

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Abstract:
A fuzzy multi criteria decision making method has been proposed in this paper. This method facilitates the alternative options in respect to the risk attitude of marketing decision makers. The proposed fuzzy analytic hierarchy process (FAHP) applies geometric means method to evaluate the priority weights of criteria and alternatives. An area based ranking of fuzzy numbers on positive and negative ideal point method is employed to rank the global priorities of alternatives with respect to risk attitude of decision makers. A comparative analysis, between the proposed method, extent analysis and modified fuzzy logarithmic least square method is carried out using numerical examples. The results indicated that the proposed method estimates true weights from a comparison matrix as compared to the other methods. Finally, a numerical problem of marketing mix of five P elements (product, price place, promotion and people) is tested to show the benefits of the proposed algorithm in solving marketing management problems.

For full paper, contact:
Prof Muhammad Masood Rafi
Editor-in-Chief, NED University Journal of Research
Ph: +92 (21) 99261261-8 Ext: 2413; Fax: +92 (21) 99261255
Email: NED-Journal@neduet.edu.pk
Website: http://www.neduet.edu.pk/NED-Journal

1 Assistant Professor, Department of Mathematics, NED University of Engineering and Technology, Pakistan, Ph. +92(0)21-99261261-8; Fax: +92(0)21-99261255, Email: fareed@neduet.edu.pk.
2 Professor, Department of Computer Science and Information Technology, NED University of Engineering and Technology, Pakistan, Ph. +92(0)21-99261261-8; Fax: +92(0)21-99261255, Email: dransark@yahoo.com.
3 Professor, Department of Mathematics, NED University of Engineering and Technology, Pakistan, Ph. +92(0)21-99261261-8; Fax: +92(0)21-99261255, Email: baig@neduet.edu.pk.