Technical Writing and Presentation HW2

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***Abstract*—Because the MADM method proposed based on the IVIFV longitude function and the IVIFV weighted average operator in the fuzzy system has some shortcomings, so the district needs to develop a new MADM method to overcome.**

***Index Terms*—IVIFS,IVIFV,MADM**

I. Introduction

In this paper, we propose a novel MADM method based on the proposed novel SF of IVIFVs and the power operator [1]of IVIFVs. The proposed SF of IVIFVs can overcome the drawbacks of the SFs of IVIFVs presented in [2]. Based on the proposed SF of IVIFVs, we propose a new MADM method to overcome the shortcomings of the MADM methods presents in [3]. The proposed MADM method is very useful for MADM in IVIF environments

II. Related Work

In recent years,some MADM methods [4] [5] [6] [7] [8]have been proposed based on IVIFSs.However, the MADM methods presented in [4] [5] [6] [7] [8] have the following drawbacks:

(1) Chen and Huang [9] pointed out that the MADM method presented in [4] has the shortcoming of obtaining unreasonable preference orders (POs) of alternatives in some circumstances.

(2) Chen and Han [10] pointed out that the MADM method presented in [5] has the drawback that it cannot get the POs of alternatives in some cases since infinite loops occurred.

(3) The MADM method presented in [6] is not able to distinguish POs of alternatives and obtains unreasonable POs of alternatives in some situations.

(4) Chen and Huang [9] pointed out that the drawback of the MADM method presented in [7] is that it cannot obtain the POs of alternatives in some circumstances due to the "division by zero" problem occurred.

(5) Chen and Han [10] pointed out that the drawback of the MADM method presented in [8] is that it cannot obtain the POs of alternatives in some circumstances due to the "division by zero" occurred.

Therefore, a new MADM method needs to be developed to overcome the shortcomings of the MADM methods presented in [4] [5] [6] [7] [8]

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