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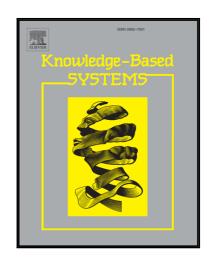
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#### ACCEPTED MANUSCRIPT

## Venture Capital Group Decision-Making with Interaction under Probabilistic Linguistic Environment

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#### **Abstract:**

As the tide of mass entrepreneurship and innovation sweeps across China, venture capital (VC) is becoming increasingly prominent in economic field and has attracted the attention of the public. The experience of the developed countries shows that VC plays a unique and irreplaceable role in upgrading the traditional industries and supporting innovation activities. As one of the most important phases in VC, investing decision phase has a direct impact on VC performance and thus deserves a detailed and in-depth study. In reality, investing decision phase in VC is usually considered as a multi-attribute group decision-making (MAGDM) process needing to reflect the characteristics of VC and the limitation of each venture capitalist. However, most of the existing researches in VC group decision-making (GDM) fail to notice the uncertainty of expressing information with the interaction among venture capitalists (VCs) disregarded. Moreover, the assessment information given by VCs is usually fuzzy. So it is of great necessity to give a clear description of the investing decision phase, and the weight distribution among the attributes and among the VCs in MAGDM. Considering this, the paper proposes an effective interaction approach for venture capital MAGDM under linguistic environment. In the approach, probabilistic linguistic term sets (PLTSs) are used to assess the project by VCs, interactions among VCs and between VCs

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