

# Aspects of fuzzy logic decision making in crowdfunding: a review of literature

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## **Abstract:**

Our contribution focuses on the use of fuzzy logic and fuzzy set theory applied to crowdfunding and finance.

The theory of fuzzy logic explicitly accepts the uncertainty surrounding certainty; it can also easily integrate the information described in language terms. Fuzzy logic models are more convenient for integrating different expert opinions and are better suited for cases with insufficient and inaccurate data. They provide a framework in which input from experts and experience can jointly assess uncertainty and identify important issues.

Crowdfunding mediated through the use of computers is a new paradigm used by individuals to solicit funds from others to complete projects. **In our contribution, we present a review of literature of fuzzy logic and fuzzy set theory applied to crowdfunding and finance. This review of literature is a part of an exploratory study on community crowdfunding platforms to finance entrepreneurial projects in the perspective of a behavioral and human science of entrepreneurial finance.**

Caetano and Caleiro (2005) have studied the influence of corruption on foreign direct investment decisions by applying a fuzzy logic approach that recognizes that a certain level of perceived corruption may be subject to different subjective assessments made by foreigners. Investors. Brochado and Martins (2005) examined the variation of policy indicators across the country and their association at the level of economic, human and gender development indicators using a fuzzy classification algorithm of averages. The purpose of the exercise was

to better understand the heterogeneity of behaviors with respect to political indicators. Sveshnikov and Bocharnikov (2009) have developed a model for studying international political and economic risk when contradictory and conflicting country views about decisions on political, economic, internal and international issues are grouped together using blurred and integral. They conducted an empirical study to estimate the politico-economic risk in Ukraine.

Gulick (2010) has studied the assignment problem using a fuzzy framework based on game theory. Gulick has analyzed several applications, ranging from cooperative investment decisions to the allocation of venture capital for banks and insurance companies. Leon and Machado (2011) proposed an index using a fuzzy logic inference system to perform a general relative assessment of the systematic significance of a financial institution. The proposed index uses some key indicators of institution size, interdependence and substitutability. Expertise is used to combine these indicators.

**Keywords:** Crowdfunding, Online Community, Entrepreneurial Finance, Fuzzy logic

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