**摘要**

风险投资在当今的社会经济发展中发挥重要作用，不仅帮助中小企业渡过早期资金短缺阶段、科学实验技术的市场转化，还借用资本的力量不断推动中国特色社会主义市场经济的不断完善。但是其投资决策仍没有形成一套科学高效的机制及方法。股本文以此作为出发点撰写本论文。

自从上世纪80年，我国开始出现风险投资，至今已有30余年。这期间风险投资在我国的发展突飞猛降。但因为风险投资是一项风险极大、投资阶段很多、投资领域很宽，投资决策很复杂的工作。故根据投资对象的发展阶段和所属领域，目前国内的风险投资基金划分为各种类别。经本人分析比较，在种子期和天使期的项目，创始人这个因素在整个投资决策中至关重要。但是从古至今对人的评估都是一件难度极高的事情。

笔者通过认真研究重庆易一天使投资有限公司的投资方法，并以国内外数十家知名风险投资机构的投资标准作为验证。经研究发现重庆易一天使投资有限公司的投资标准基本完善，可以作为风险投资的基本评估标准。

重庆易一天使投资有限公司的这一套投资标准是从商业本质推导建立起来的，所以从表面上看六个标准中有五个标准是对“事”的评估，只有一个标准是评估“人”的。但是在笔者看来这些“事”都是基于“人”。故我将重庆易一天使投资有限公司的投资标准总结为“人的内因”和“人的外因”这两个标准。

但是实际上可以完全满足所有标准的早期项目几乎没有，所有项目只能部分程度得达到部分标准。但经过实际检验，不能完全达到所有标准的项目也可以成功。所以研究的重点就是“达到标准什么程度的项目是可以投资？”

为了解决这一问题，首先需要将风险投资标准进行融合。经研究发现，在信息融合领域使用的主要数学工具或方法有概率论、推理网络、模糊理论和神经网络等。本文通过分析对比发现在此问题上使用层析分析法较为合适。

在风险投资领域，对人的评估很多时候是感性、模糊的。所以在对投资标准进行融合的时候使用的模糊数的方法对数据进行处理，使得数据处理更加接近真实情况，得出更精准的数据。

因为本方法主要应用于天使投资领域的项目评估及投资决策，在业内一个项目天使项目如何可以进入到 A 轮，那说明该项目的天使投资基本上算是成功的。所以，笔者利用之前在创投圈的一些渠道对100个已经获得 A 轮的项目创始人进行评测。

经分析，对100个已经进入 A 轮的项目创始人评测均在一个合理区间内。所以今后用同样的方法对天使期的项目进行评测，如果评测结果也在这个区间，则说明该项目可以进行投资。

本文通过研究获得一套切实可行的投资系统，可以对天使期的创业项目针对创始人进行投资决策评估。此系统在整个风险投资基金中作为基础决策支持。主要是帮助基金中低层投资经理快速、精准判断项目。为基金的“投资决策会”提供决策依据。

关键词：风险投资、创始人、模糊数、层次分析法、决策分析

**Abstract**

Venture capital plays an important role in today's social and economic development, not only help small and medium-sized enterprises pull through the early stage of shortage of funds and the market transformation of scientific experimental technology, but also use the power of capital to promote the improvement of the socialist market economy with Chinese characteristics continually. However, its investment decision-making has not formed a set of scientific and efficient mechanisms and methods. Then this article just used it as the starting point.

Since 80’s in last century, venture capital has begun to emerge in China, and it has been more than 30 years. During this period, venture capital in China was developing by leaps and bounds. However, venture capital is a work with high risk, a lot of investment stages, wide investment area, and complicated investment decision-making. Therefore, according to the development stage and field of the object of investment, the current domestic venture capital funds are divided into various categories. By comparing and analyzing, founders are essential in the entire investment decision-making, especially in the projects which are in seed and angel investments. However, from ancient times until today, it has been always very difficult to evaluate human beings.

I carefully researched the investment methods of Chongqing Yiyi angel Investment Co., Ltd. , and used investment standards from dozens of well-known domestic and foreign venture capital organizations as a verification. It has been found that the investment standards of Chongqing Yiyi Angels Investment Co., Ltd. are basically perfected and can be used as the basic evaluation standard of venture capital.

This set of investment standards of Chongqing Yiyi angel Investment Co., Ltd. is established from the commercial nature, so superficially five standards in the six are to assess "things", and only one standard is to assess "people ". But in my opinion these "things" are based on "people". So I summarized the investment standards of Chongqing Yiyi Angel Investment Co., Ltd. as "people's internal factors" and "people's external factors" these two standards.

However, in fact, there is nearly no early project which can almost completely meet all the criteria, and all of the projects can only meet part of the standards. But through the practice verification, projects which can not fully meet all the standard could also succeed. So the focus of the study is "which level that projects achieve the standards can be worth investing?

In order to solve this problem, integrating venture capital standards is the first thing to do. It has been found that the main mathematical tools or methods used in the field of information fusion are probability theory, reasoning network, fuzzy theory and neural network. After comparing and analyzing, this paper found the use of chromatography analysis on this issue is more appropriate.

In the field of venture capital, the assessment of human beings is always emotional and vague. Therefore, when integrating the investment standards, using the method of the fuzzy numbers to deal with the data, made the data processing closer to the real situation and thus obtained more accurate data.

Because this method is mainly applied to project evaluation and investment decision-making in the field of angel investment, in the industry a project angel project how to enter the A round, that the project angel investment is basically a success. Therefore, I assessed 100 founders who has got A round of investment by using some formal channels in the VC circle.

After analysis, the assessments of 100 founders who have entered the A round of the project are in a reasonable range. So we can use the same method of angel project evaluation in the future, if the evaluation results are also in this interval, then it indicates that the project can be invested.

In this paper, a set of practical investment system was achieved through studying, which can make the investment decision-making assessments aiming at the founders of the venture project in angel investment . This system is used as a basic decision support in the whole venture capital funds, which is mainly to help middle-low-level funds investment manager quickly and accurately determine the projects, and it also provides decision-making basis for the "investment decision-making meeting" .

Keywords: Venture capital, Founder, Fuzzy Number, Chromatography analysis, Decision-making Basis