

New Investor in Town: Initial Coin Offerings and the Decentralized Anonymous Crowd

Ekin Ilseven

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1 Introduction

In a recent conversation with two cryptocurrency traders, I asked how they figure out which Initial Coin Offering (ICO) makes sense. Their answer came without hesitation: "You don't know." As it is not a satisfying answer, I further asked how they decide in which ICO to invest. Next to the fact that it is more or less a "hit or miss", for them one of the most important factors was the affiliations of the start up founders. In an online article¹, Bernard Moon, co-founder and partner at SparkLabs, states that "early-stage startup investing hasn't changed. Investment approach and what active angels and venture capitalists look for in startups haven't changed, so why should it change for cryptocurrency investors?" While the author says that it's the "target audience of investors" that has changed, a closer look into academic research in management and behavioral finance might uncover some other intricacies of ICOs. The following papers uncover some social and organizational mechanisms in the venture capital world. As we will see, even though finance is theoretically all about numbers, in reality the survival of the entrepreneurs, angels and investors in general are inseparable from social dynamics, if not dependent on it.

2 Unknowability

In "Managing the Unknowable: The Effectiveness of Early-stage Investor Gut Feel in Entrepreneurial Investment Decisions", Huang and Pearce (2015) study the decision process of angel investors. They describe the early-stage funding situation not only as a decision process under risk or uncertainty, but under unknowability. While in risky cases, the possibilities are quantifiable, in uncertainty they are only identifiable; unknowability asserts no knowledge on the possible outcomes nor on their probabilities. While venture capitals (VCs) have more information on their investments and manage pooled funds, in contrast, the angel investors invest their own money and have less resources to tackle unknowability. "Yet total annual angel investments are almost as much as all venture capital funds combined, (...) angels invest in more than 60 times as many companies as venture capitalists. (National Venture Capital Association, 2010)" In this extreme situation, how do the angel investors invest? The authors determine some characteristics of angels, next to their methods. First, in an inductive-theory building study they determine that the angels look for extraordinarily profitable investments while accepting the fact that not every investment is going to succeed. This is a counterintuitive finding, which they contrast with those of Tversky and Kahnemann (1983); the angels were expected to engage in risk (or loss) aversive way. In follow up studies, they compared an analytical method, business plan analysis, with an "intuitive" one, the perception of the entrepreneur. The results indicate that angels place more weight on their perception of the entrepreneur rather than the business plan. Finally, we see that for these methods to work out, the important factor is experience. The authors determine that the important role of affect-laden cognition in decision-making of the angels which can be developed only through experience. While this work seems to need some replication, respectively confirmation, it is certainly an important indicator that early-stage investment might be a more emotionally and socially driven business. Now with this work in mind, put yourself in the shoes of a crypto-investor. A whitepaper is published online and ICO is opened to public (private ICO to be discussed later). Neither face-to-face interaction nor time or material for due diligence exist to rely on. Even the findings of Huang and Pearce seem to be insufficient to explain the decision-process of ICO investments. Then the questions follow: What are the investing schemas of crypto-investors, when they can not rely on social cues nor on rigorous business plans? Are social ties (affiliations) good enough to predict the success of an ICO? How does (or can) an affiliation analysis take

 $^{^{1}} https://www.forbes.com/sites/sparklabs/2017/12/05/dont-be-dumb-money-how-to-invest-in-icos-and-blockchain-startups/#3d1009627c74$

place under high time pressure where an ICO can raise \$50m in 24 hours²? Next, moving away from angel investors, we look at investment in larger scales and in organizational settings.

3 Social Actors on Investment Landscape

The following three papers paint a behavioral picture of the organizational actors and their corresponding interactions with each other in the investment landscape. Revealing the behavioral and social nature of investing organizations (VCs) could allow us to better locate the decentralized, anonymous and individual crypto-investors in this landscape.

3.1 Venture Capitals: How rational are their decision-making?

Guler (2007) investigates in "Throwing Good Money after Bad? Political and Institutional Influences on Sequential Decision Making in the Venture Capital Industry" the taken-for-granted rationality of organizations, more specifically of VCs, who are expected to be experts at making rational investment decisions. The main subject of her work is escalation of commitment bias in sequential decision-making, which can be well observed in multiple round investment setting. While this bias is well-studied for individuals, it is difficult to find any works on systematic biases in organizational level, let alone on the mechanisms of systematic biases. This work, first of all, draws our attention to the existence of irrationality in a higher level of analysis and shows that the mechanisms are observable; the necessity for internal and external control stifles the organizations and looking at the control struggles concretely sheds light on the mechanisms of irrationality. Furthermore, Guler emphasizes that even if the VCs are equipped with tools that should protect them from wrong decisions (such as the sequential nature of investment allowing them to step out, frequent interaction with entrepreneurs and rights to board membership), the escalation of commitment is counterintuitively still present in VC behavior. After a qualitative inductive study, she determines three factors that contribute to the persistence of the bias: 1) Citing from an interviewee: "The bigger the firm, the more political it is ... It depends on the size and the political element of decision making." Hence, a manager might hold on to an investment to use it as leverage, 2) "The relationships between co-investors become more complex and severing the investment tie may involve more penalties for each VC," meaning that social contracts between co-investing VCs lead to loss of flexibility. The author further points out that higher status firms are less dependent on their syndicate, making them more flexible. 3) The older the VC is (which has a typical lifetime of 10 years), the more it will hold on to its investment, as it has to deliver returns to its clients soon. This is possible only with start-ups in late stages, which are for example close to IPOs. This is surprisingly similar to the individual level personal struggles of trying make the most out of life before it ends. Although these findings point at the irrationality of VCs, the author concludes with a caveat that "these results might represent the upper bound on the quality of decisions in a typical organization..." As next, we look at another kind of actor: the corporations.

3.2 Can Corporate Venture Capitals compete with Independent Venture Capitals?

Taking the independent VCs (IVCs) as a reference point, Dushnitsky and Shapira (2010) study the influence of performance pay on corporate VC (CVC) behavior. Their work is an interesting contribution to corporate finance, more specifically to the principal-agent theory. The authors argue that in agency studies, most of the works focus on the relationship between the structure of the incentive payment and the resulting performance and such studies could be improved greatly, if the behavior of the investors could be observed depending on the performance pay. They pin down two dimensions of behavior to

²https://venturebeat.com/2018/02/06/fusion-raises-50-million-in-under-24-hours-to-create-a-token-ecosystem/

investigate the influence of performance pay: 1) In which round do the investors invest? 2) What are the typical syndicate sizes that VCs are involved in? Their findings show that IVCs tend to invest in earlier stages compared to CVCs and also tend to be members of smaller syndicates (especially when the syndicate is all IVC). Moreover, they find support for their hypothesis that use of more performance pay in CVCs makes their investment behavior more IVC-like. Finally, they find that CVCs that behave more like IVCs not only are more successful than CVCs but also from IVCs as well. This finding is explained by the affiliation of CVCs with a large corporation. While the contribution of this work to performance pay literature on a behavioral as well as performace level is important, it also points to the fact that CVCs are relevant competitors to IVCs and sometimes even stronger. In such a setting, power dynamics are inevitable.

3.3 How do entrepreneurs deal with VCs?

What happens to the entrepreneur, who is in need of resources and has to deal with IVCs and CVCs? Having had a research perspective from IVC and CVC point of view, "How do social defences work? A resource-dependence lens on technology ventures, venture capital investors, and corporate relationships" by Hallen et al. (2014) completes the social picture of "investment-triangle" consisting of entrepreneurs-IVC-CVC. The authors note that "this work examines young firms' decisions to form partnerships with corporations - that is, to 'swim with sharks' - in preference to safer partners likely to offer somewhat less attractive resources, but also fewer risks of misappropriation." In the literature, sharks are defined as "a potential partner (which) is both particularly attractive and particularly dangerous", and in this research setting they correspond to CVCs, whereas VCs are considered to be less attractive and less dangerous. Furthermore, the subject of this work is young technology ventures just like the cryptocurrency/blockchain based start-ups. The authors identify two formal defence mechanisms that the young firms utilize, namely secrecy defence involving strong trade secret regimes on which both sides have to agree and timing defence, which means that building ties with a corporation in a later stage makes it difficult for the corporation to take advantage of the entrepreneur. What happens when these defences are not available? In Dushnitsky and Shapira's work, we saw that higher performance pay in CVCs lead to earlier stage investing mitigating the possibility of timing defence. Or is it the performance pay that makes CVCs more IVC-like keeping the attractiveness the same, hence less of a shark?³ The tools that are available to entrepreneurs then become only the social ones. The authors determine two elements that are available to entrepreneurs: 1) Alignment benefits from VCs: VCs have an incentive to help entrepreneurs succeed and the involvement in the business as a third-party they offer more benefits. 2) Disciplining: As a third-party they discipline the opportunistic parties by breaking ties with the offending party and/or "broadcast(ing) allegations of opportunistic behavior (...) could damage the offending party's reputation". Both of these elements allow young ventures feel safer as well as make them more attractive to the CVCs. Hence, existence of such social defences (arguments for which are supported by works such as Sorenson and Stuart (2001) and Hsu (2004)) increases the likelihood of tie formation between entrepreneurs and CVCs.

4 Conclusion

All together, we have a three-actor picture based on social dynamics: i) IVCs that have natural incentives and ability to help with their network advantages, however have their own biases due to their own stakeholders, ii) CVCs that have varying incentives, but lucrative business strategies and know-how, and iii) Entrepreneurs who need financial funding as well as competitive business-wise advantage and forced to make use of social tools to play actors against each other in order to advance: A "tertius gaudens"

³Maybe more like a dolphin?

(Burt 1992) situation forcing both kind of VCs to eventually collaborate through the focal entrepreneur. Here comes the "new target audience of investors" mentioned in the introduction of this memo; the decentralized anonymous crowd (DAC). Several question arise from this analysis: Except financial funding, ICOs neither offer the network advantage of IVCs nor the business know-how of CVCs; what can DAC offer to entrepreneurs? On the other hand, how can the entrepreneurs make use of the ICOs, which are today mostly a single stage quasi-seed funding (no timing component) and secrecy of which is inappropriate in the eyes of the crypto/blockchain community? While Andrew Shipilov says "Governance Needed for Initial Coin Offerings" and refers to Vitalik Buterin's idea of bringing decentralized autonomous organization model into ICO governance, Bernard Moon believes that "the long-term ICOs will affect the mid-stages of venture capital, but not displace them. ICOs will be an alternative for many serial and successful entrepreneurs looking or alternative sources of capital at their Series B, C and later rounds." While many people are concerned about the problems of humanity that cryptocurrencies and blockchain could solve, maybe looking at behavioral foundations and social utilizations of them by professionals such as entrepreneurs, angels and VCs (both independent and corporate) against unknowability, needs of control and sharks could be the more effective approach to understanding the new crypto-world.

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⁴https://knowledge.insead.edu/blog/insead-blog/governance-needed-for-initial-coin-offerings-8556