Trust But Verify: The Economics of Scams in ICOs

ABFER Discussion

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Overview (1/2)

- Understanding how investors get fooled in capital markets
  - ▶ Focus on initial fundraising in the crypto capital market

- A paper with a lot of positive characteristics
  - ▶ Important question with potential regulatory implications
    - ★ Above and beyond the ICO market
  - ▶ Effort to combine theory and empirics
  - ▶ Great data collection with point-in-time data snapshots
    - ★ Observe potential misrepresentations
    - ★ Observe behavior of the venture (e.g., funding success)
    - ★ Somewhat observe / compare investors' portfolio

Urgent `External`

Stephen H Penman <stephenhpenman@gmail.com>
to me ▾

Hello, are you available?

Apr 26, 2019, 1:13 PM

Thomas Bourveau <tb2797@columbia.edu>
to Stephen ▾

I am at lunch with the speaker

Then I teach MBA i will try to come to see you before the seminar

On Fri, 26 Apr 2019 at 1:13 PM, Stephen H Penman <stephenhpenman@gmail.com> wrote:
  Hello, are you available?
--
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Apr 26, 2019, 1:14 PM

Stephen H Penman <stephenhpenman@gmail.com>
to me ▾

I'm in a meeting right now and that's why i'm contacting you through here. I should have call you, but phone is not allowed to be use during the meeting.I don't the meeting will be rounding up, And i want you to help me out on something very important right away.

...

Apr 26, 2019, 1:16 PM

Overview (2/2)

- A very dense set of results
  1. Model on misrepresentations to scam naive investors
  2. Misrepresentations are associated with ex post scam status
  3. Misrepresentations vary with time-series of enforcement actions
  4. Misrepresentations are not associated with fundraising success
  5. ETH wallets of misrepresented ICOs display less transactions, are less diversified and younger
  6. Network analysis of misrepresentations passed through common ICO advisors
  7. Welfare analysis
  8. Some additional robustness tests

Agenda

1. Point #1: Contribution

2. Point #2: Model

3. Point #3: Empirics

Point #1: Contribution (1/6)

- "Most papers get rejected for lack of contribution"
  - Add **any editor's name** to this quote

- The paper starts with a general pitch on scams but immediately focus exclusively on ICOs

- Current manuscript states two main contributions (page 5):
  1. Literature on scams in the ICO market
  2. Literature on data quality (limitations) in the ICO market

Point #1: Contribution (2/6)

- **Suggestion** #1 - Consider refocusing the paper
  - ▶ Too many results, makes it hard(er) to see the clear contributions of the manuscript

- **Suggestion** #2 - Consider the following parts of the literature:
  1. Literature on misreporting of information (accounting)
  2. Literature on market manipulation (finance)
  3. Literature on investors' protection (accounting, finance & law)
  4. Literature on financial advisors (finance & law)

Point #1: Contribution (3/6)

- Literature on **misreporting**

- Strategic misreporting to hide a firm's type
  - ▸ See Beyer, Cohen, Lys and Walther (JAE 2010)

- Misreporting that reveal a firm's type
  - ▸ See the literature on (immaterial) errors in financial statements

- Strategic misreporting to filter out sophisticated investors
  - ▸ This paper

Point #1: Contribution (4/6)

- Literature on **market manipulation**

- Interesting literature on price distortions created by so-called "pump-and-dump"
  - Traditional secondary markets - Leuz et al. (WP 2022)
  - Crypto-token secondary markets - Gandal et al. (JME 2018)

- What can this manuscript bring to this literature?
  - Manipulation pre-listing rather than post-listing
  - No identity on the investors but observe characteristics of their portfolio

Point #1: Contribution (5/6)

- Literature on **investor protection**

- Securities regulations are designed to protect "vulnerable" investors
  - Unclear to what extent this is needed - Who falls for schemes?

- Solutions of disclosure mandate versus restricting access to markets
  - Listed firms versus equity issuance through Form D or crowdfunding

- Welfare loss analysis of this paper can be informative

Point #1: Contribution (6/6)

- Literature on **financial advisors**

- Misrepresentations among advisor-linked ICOs
  - Consequences of varying degrees of oversight, with some results that "bad" advisors select into the the more lax regulatory environment.
  - See Honigsberg, Hu and Jackson (SLR 2022)

- The career consequences of misrepresentations for ICO advisors
  - Consequences of getting an expungement of ones public record for financial advisors that committed financial misconduct
  - See Honigsberg and Jacob (JFE 2021)

Point #2: Model (1/4)

- High level: Model is very similar to Herley (WP 2012)
  - Do you need a model?

- Substantial gap between the model and the tests in the manuscript
  - The **hypothesis** of the paper (and later what is tested) is that misrepresentations are used as a screening device for scam.
    - ⋆ Paper is not testing how much this device is used to screen naïve users.
  - The model presented in section 2.1 takes it **as given** that issuer is using misrepresentation to screen and is really talking about the optimal strategy of misrepresentation.
    - ⋆ About the deliberation of tau

Why do Nigerian Scammers Say They are from Nigeria?

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Microsoft Research
One Microsoft Way
Redmond, WA, USA
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Point #2: Model (3/4)

1. Potential solution #1:
   - Argue why misrepresentation can be used as a screening device (instead of how as in the current version)
     - ★ Drop the model and cite Herley (2012) to say e.g., Nigerian prince is used as a screening device.
     - ★ The main hazard model also does not depend on the model

2. Potential solution #2:
   - Keep but enrich the model with nuances reflecting the ICO market:
     - ★ Consider whether the buyers' characteristic in ICO is the same as in a general "Nigerian" scam
     - ★ Consider whether the conditional CDF still monotone?
     - ★ Does more misrepresentation necessarily lead to more naïve buyers left in the pool, or is it some hump-shaped relationship?

Point #2: Model (4/4)

- Alternative way to think about the model
  - ▶ "Tolerance" of discrepancies is not a super straightforward concept
  - ▶ Since this is a behavioral assumption, using "information processing cost" can derive the same prediction but with more familiar setting.
    - ★ See Blankespoor et al. (JAE 2020)

- The ICO issuer has tree messages: m_0, m_1, m_2
  - ▶ m_i cost C_i to process, where $C_0 < C_1 < C_2$
    - ★ Similar to choosing the complexity of the message
  - ▶ The naive investor's processing capacity is $K_N \in (C_0, C_1)$
  - ▶ The sophisticated investor's processing capacity is $K_S \in (C_1, C_2)$
  - ▶ If they process the information m_i by paying C_i, they can find out that the ICO is a scam.
  - ▶ If the default action of the investors is to invest, then by choosing m_1, the scammer can elicit investment only from the naive investors.

Point #3: Empirics (1/3)

- The scamming ICOs use discrepancies among websites that list the ICO info to elicit investment only from the naive investors
  - ▸ Screening because the sophisticated investors will consume the resource of the scammers by asking a lot of questions but without investing

- Key is to convince the reader that misrepresentation is **strategic**
  - ▸ No direct evidence that the ICO venture provides different information to different listing websites
  - ▸ What is the economic relationship between issuers and listing websites? What are the incentives?
  - ▸ How does the website collect the information? Is it done at the same time?
  - ▸ If **white papers** are imprecise (not consistent), misrepresentations shared and/or collected might reflect differences in **quality**

Point #3: Empirics (2/3)

- Ruling out "**simple mistake**"
  - ▶ Test #1: changes in misrepresentations around regulatory scrutiny
    - ★ What if the listing websites become more careful (more due diligence)
  - ▶ Test #2: No differences in fundraising success
    - ★ Based on the assumption that investors successfully separate "good" from "bad" ventures at the ICO
    - ★ Not sure if this is really consistent with the high funding rate (especially relative to say, VC funding rates)

- Ruling out "**quality**" differences
  - ▶ High quality ventures having better disclosure is a central result in information economics / accounting
  - ▶ Legitimate concern given how different the scam versus non-scam ventures are both on economic and disclosure dimensions

Point #3: Empirics (3/3)

- Figure 3 (on the actual misrepresentations) should be expanded

- Why are these items **material**?
  - ▶ They seem important but rather second order relative to technology, potential market, etc... where a lot of white papers make truly egregious claims!
  - ▶ Why would mixing up the countries that are banned from participating to the ICO convince sophisticated investors not to invest?
  - ▶ Is there variation in materiality across items that could be exploited?

- Consider looking at Reddit to see if these items pop in discussions about ICOs

Conclusion

- Super interesting paper on a big topic
    - More institutional details, fewer tests
    - Better positioning in the literature(s)

- Best of luck with the paper!