

New frontiers in financial markets and regulation

Academic Seminar Series 2021-2022

ICOs, Blockchain e DLT

Initial coin offerings (ICOs): Why do they succeed?



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Campino, J., Brochado, A. & Rosa, A. (2022). Initial coin offerings (ICOs): Why do they succeed?. *Financial Innovation*. 8 (17)
<https://doi.org/10.1186/s40854-021-00317-2>

Brochado, A. & Troilo, M. (2021). Initial coin offerings: an emergent research area. *Digital Policy, Regulation and Governance*. 23 (2), 113-131

Campino, J., Brochado, A. & Rosa, A. (2021). Success Factors of Initial Coin Offering (ICO) projects. *Economics Bulletin*. 41 (2), 252-262.

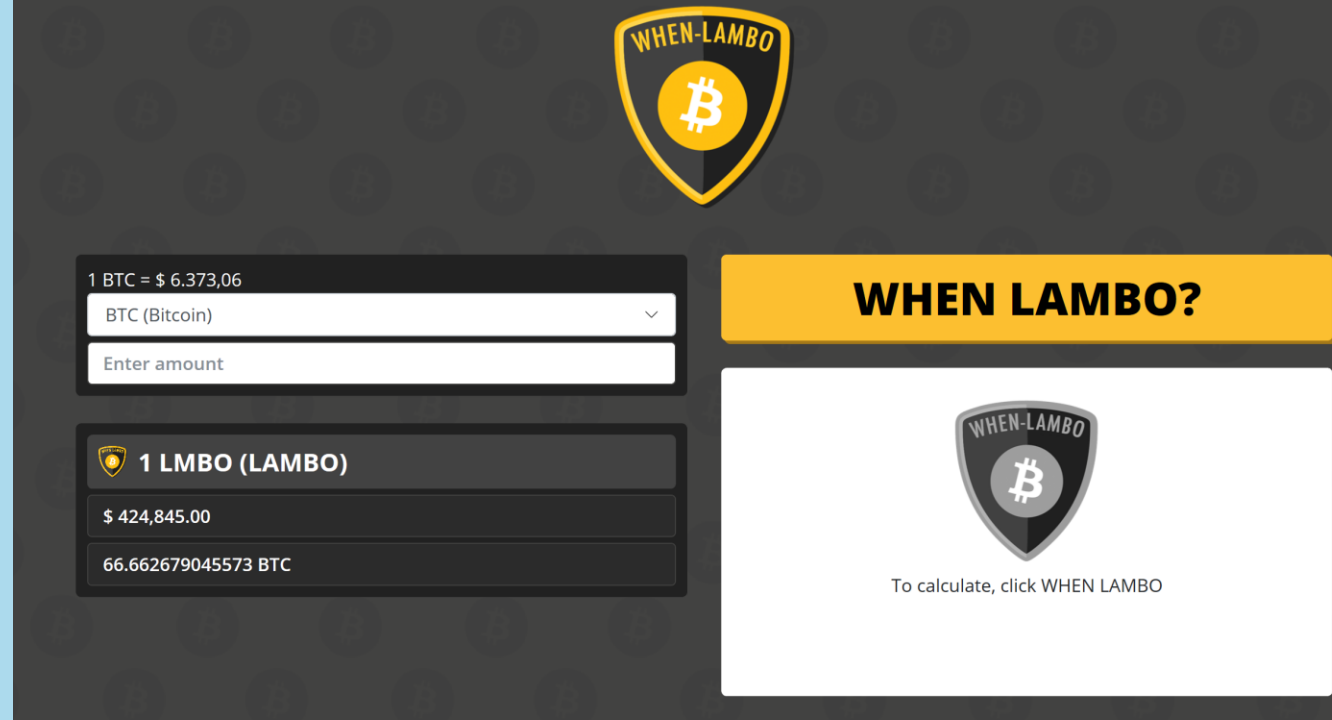
Campino, J., Brochado, A. & Rosa, A. (2021). Initial Coin Offerings (ICOs): the importance of human capital. *Journal of Business Economics*. 91, 1225-1262

Brochado, A. (2018). Snapshot das Initial Coin Offerings (ICOs) . *Cadernos do Mercado de Valores Mobiliários*. 60, 53-76


Tokens

There a new money sub-culture within the Token' space

More than technology and finance "When Lambo" illustrates the dream of any ICO investor: to make a large amount of money in a short time.



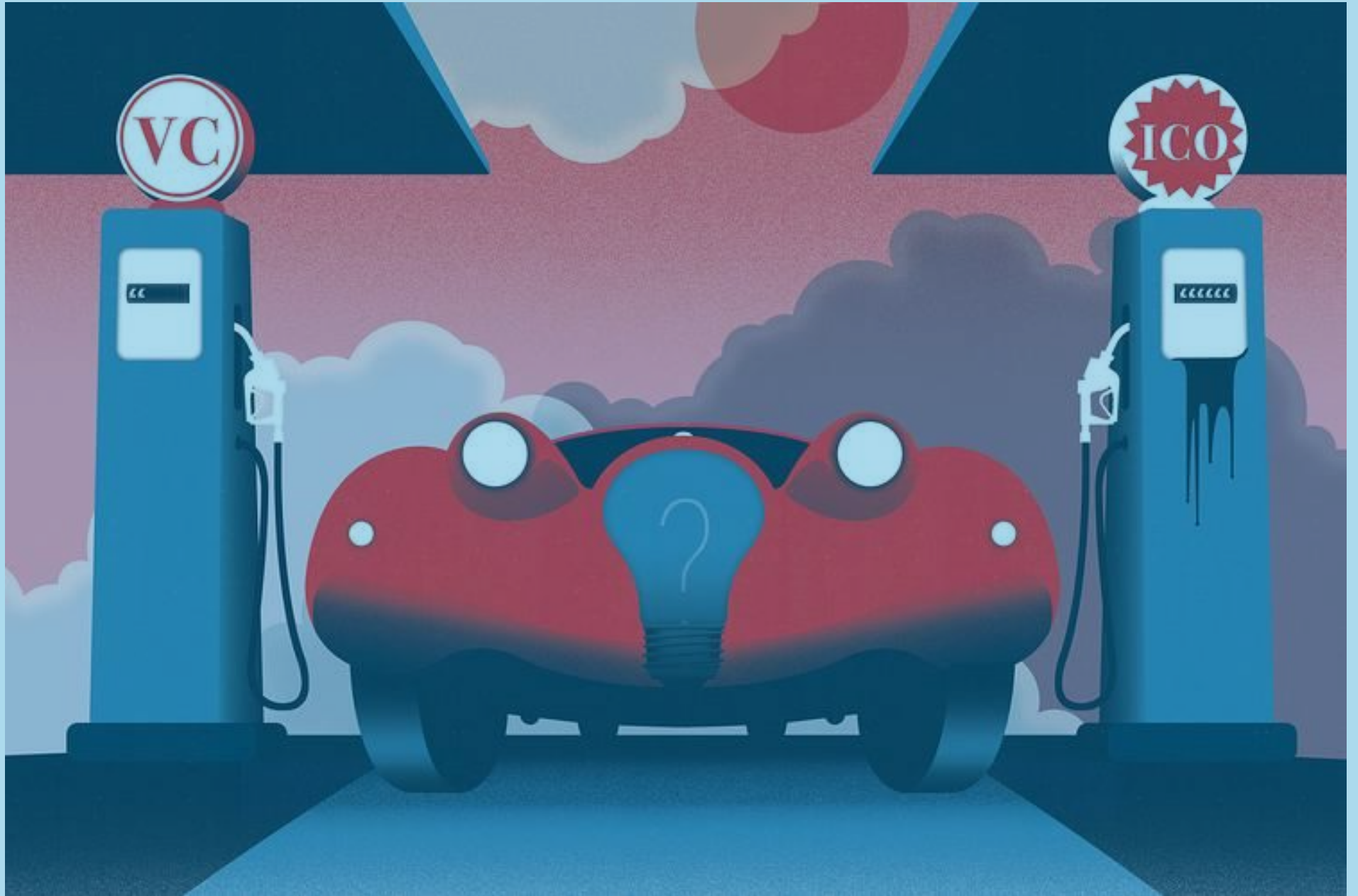
The screenshot shows the 'WHEN-LAMBO?' website interface. At the top right is the 'WHEN-LAMBO' logo, which is a shield containing a Bitcoin symbol. Below the logo is a dark grey form with a white input field for 'Enter amount' and a dropdown menu currently set to 'BTC (Bitcoin)'. Above the input field, it displays '1 BTC = \$ 6.373,06'. Below the form, there is a table with three rows:

 1 LMBO (LAMBO)
\$ 424,845.00
66.662679045573 BTC

To the right of the form is a yellow button labeled 'WHEN LAMBO?'. Below this button is a white box containing the 'WHEN-LAMBO' logo and the text 'To calculate, click WHEN LAMBO'.



ICOs



ICO, IPO, Crowdfunding

- Alternative Finance
- Financing of *blockchain projects/ crypto startups*
- Online distribution channel
- Project financing in the early stage
- Desintermediation
- Secondary market liquidity (Crypto Exchanges)
- High volatility
- Development of an ecosystem
- White paper/ information asymmetry
- Democratization access to entrepreneurship
- “Zombie tokens”
- Cyber crime



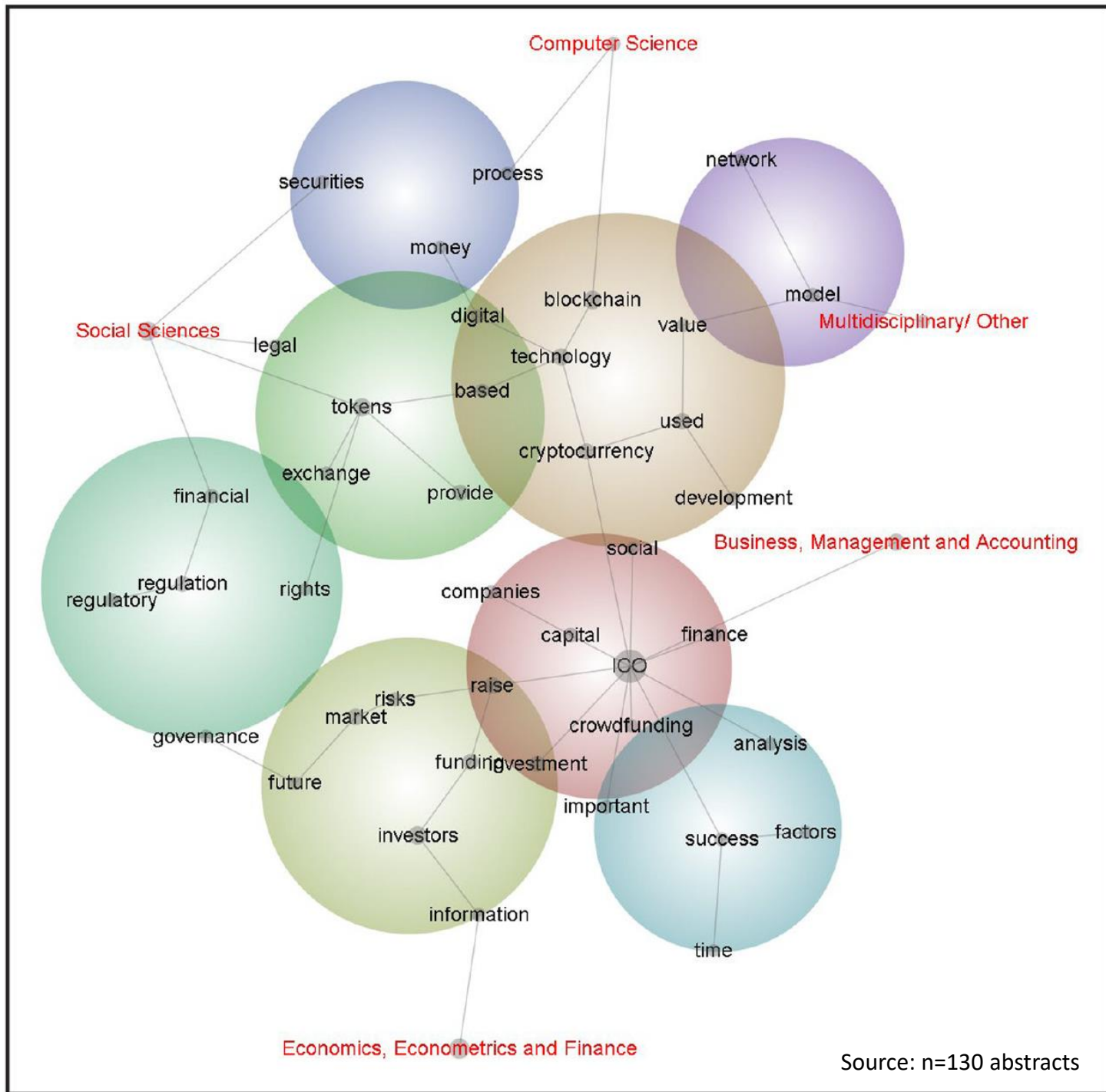
Research Question

What are the main success factors of ICO projects outcomes?



Literature Review





Brochado, A. & Troilo, M. (2021). Initial coin offerings: an emergent research area. *Digital Policy, Regulation and Governance*. 23 (2), 113-131



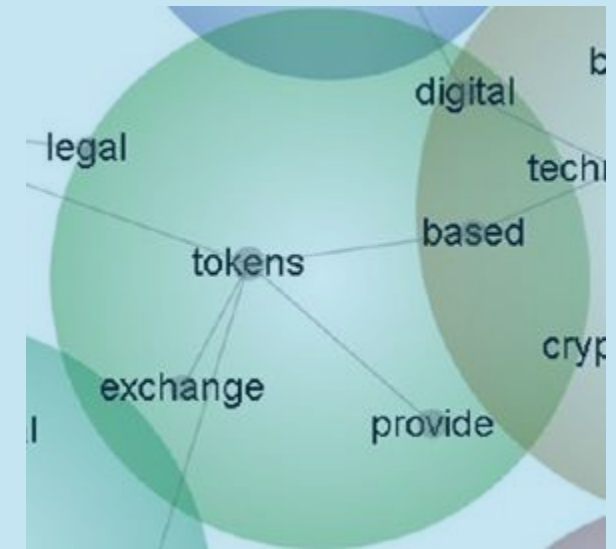
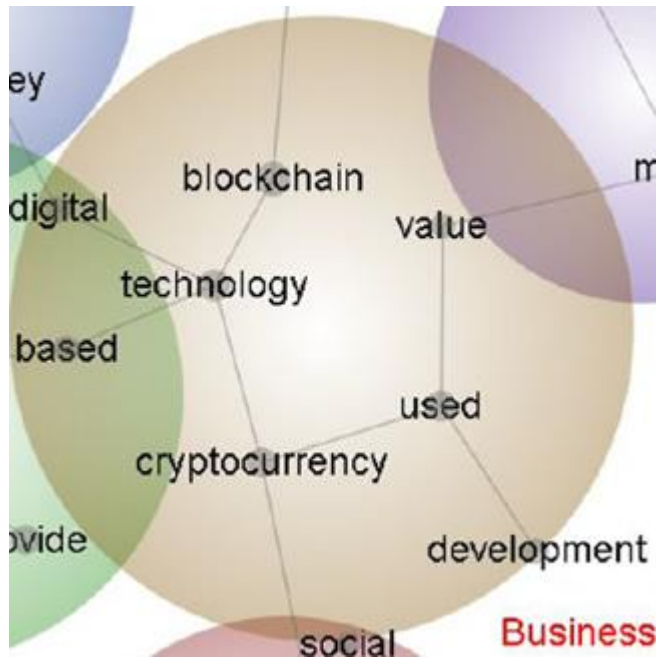
The theme “ICO” describes ICOs as a new wave of innovation of tokenization that will revolutionize the landscape of entrepreneurship and innovation.

Innovative firms over a range of industrial sectors will use ICOs to raise capital.

The theme “investors” is related to the information asymmetries and decision making under uncertainty that potential investors face due to the relatively unregulated ICO space, and how to mitigate these uncertainties.



The theme “blockchain” links ICOs with blockchain technology and blockchain ventures.



Blockchain project developers can raise capital by selling tokens to a crowd of investors that expect financial value creation.

Tokens can offer investors different classes of financial and non-financial rights and rewards and are a component of a well-diversified portfolio.

The theme “market” is linked both to the primary market, used by companies to raise capital and to the secondary market, where tokens are exchanged in a crypto exchange.

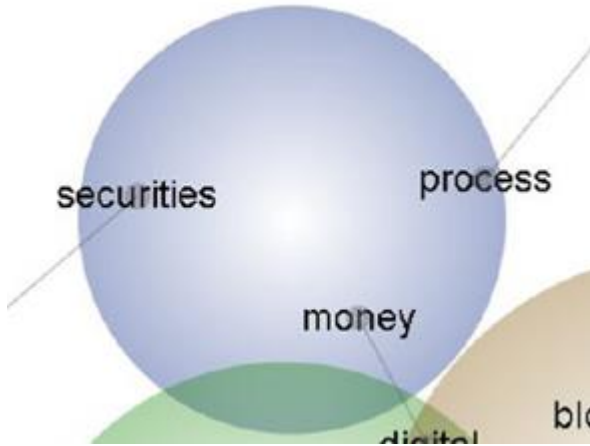
Investors face information asymmetries and decision-making under uncertainty.

Blockchain ventures can reduce these information asymmetries by using signalling mechanisms.



The theme “regulation” highlights that due to the uncertainty of the applicable regulatory framework for ICOs, ICOs convey risks for the issuers of the tokens, the exchanges, and for the investors.

There is a need for an efficient regulatory environment to protect the participants in financial investments and to promote financial inclusion by promoting additional funding sources for small and medium enterprises.



Researchers have discussed whether tokens are securities according to the US laws and under the EU regulation.



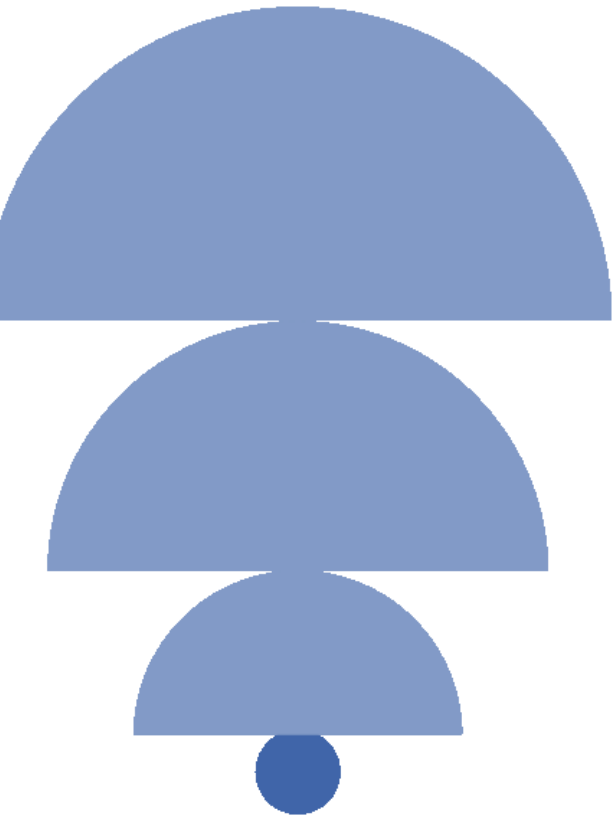
The theme “success” discusses the determinants of ICO campaigns financing success.

The General Systems Theory



- Initial coin offering projects can be classified as ventures operating in an open systems model (Geiger et al. 2011a).
- ICO ventures have several iterations with external agents, which can change the project's perception (Zha et al. 2020), namely, the website where the ICO is published, specialists who classify the project by providing ratings, and several stakeholders who are ultimately potential investors (this iteration can occur before, during, and after the financing campaign).

Signaling theory



- The ICO market is characterized by enormous information asymmetries between promoters and investors (Momtaz, 2019) which become more relevant due to the lack of regulation (Kranz et al., 2019)
- The issue is identified by the signaling theory as an **information asymmetry problem** (Spence, 1973).
- In signaling theory there are signalers, receivers, and signals. The signalers possess crucial information on the project which must be sent to the receivers through signals in order to influence the quality perception of the project (patents, whitepaper, high-quality source code, ICO ratings).

Success Factors

#telegram



ICO?

Social Networks- presence of Twitter and GitHub (repositor of code), activity of the social network (Albrechet et al, 2019)



Campaign- campaign period (Roosenboom et al., 2020), pre-sale (Giudici and Adhami 2019), token prices (Burns & Moro, 2018), financing thresholds - soft-cap & hard-cap (Benedetti & Kostovetsky, 2018), accepted criptocurrencies (Lee et al., 2019),



Project- industry (Davies & Giovanneti 2018), geography (Ackermann et al. 2020), white paper (Albrecht et al., 2019), secondary market (Lyandres et al., 2019)



Team/ Human capital – team characteristics (Na et al., 2019), team size, professional experience, educational background, technological background, managerial experience, social media presence (Brochado, 2018), advisory team (Cerchiello et al., 2019)

Hypothesis

- The main objective of the current research is to understand what the relevant success factors are, described here as signals, that contribute to the positive output of an ICO project.
- H1 - the signals provided by the project promoters to investors in the open systems relationships contribute positively to the success of the campaign;
- H2 - projects that provide higher levels of quality information are more successful.

Methodology



Research design

- Secondary data
 - ICO Bench premium subscription/ API
 - Twitter
 - Whitepaper
 - ICO website
 - LinkedIn
- N=556 ICO projects in the banking/financial sector
- Data analysis
 - Robust regression
 - Logistic Regression





Variable	Description	Source
<i>Dependent variable</i>		
Log of the capital raised	Logarithm of the total capital raised in USD	ICO Bench
Soft-cap achievement	Binary variable measuring the achievement of the soft-cap threshold	ICO Bench
Hard-cap achievement	Binary variable measuring the achievement of the hard-cap threshold	ICO Bench
Existence of a secondary market	Binary variable measuring the existence of a secondary market	ICO Bench



Variable	Description	Source
<i>Project variables</i>		
Whitepaper: team disclosed	Binary variable stating the disclosure of the team in the whitepaper	Whitepaper
Whitepaper: technical	Binary variable stating the technicity of the whitepaper	Whitepaper
Whitepaper: word count log	Logarithm of the total whitepaper's word count	Whitepaper
Restricted countries	Variable accounting the number of countries where the project is restricted	ICO Bench
Region: North America	Binary variable stating the project's region	ICO Bench
Region: Asia-Pacific	Binary variable stating the project's region	ICO Bench
Region: Europe	Binary variable stating the project's region	ICO Bench



Variable	Description	Source
<i>Campaign variables</i>		
Pre-sales	Binary variable stating the existence of pre-sales	ICO Bench
Bonus scheme	Binary variable stating the existence of bonus schemes	ICO Bench
Token price log	Logarithm of the token's price	ICO Bench
Bitcoin price log	Logarithm of Bitcoin's average yearly price	CoinDesk
Ethereum price log	Logarithm of Ethereum's average yearly price	CoinDesk
Currencies accepted	Number of currencies accepted by the project	ICO Bench

#telegram



ICO?

Variable	Description	Source
<i>Social network variables</i>		
Twitter: active during campaign	Binary variable stating the campaign's status on Twitter	Twitter
Twitter: followers log	Logarithm of the number of Twitter's followers	Twitter
Twitter: number of tweets log	Logarithm of the number of tweets	Twitter
Github account	Binary variable stating the existence of a Github account	Github
Github: existing code prior to ICO	Binary variable stating the existence of code on Github prior to the ICO launching	Github
Website active on May, 2020	Binary variable stating the ICO website's status	ICO website



Variable**Description****Source**

Team variables

Team members log

Logarithm of the number of elements in the team

ICO Bench

Advisors log

Logarithm of the number of advisors in the team

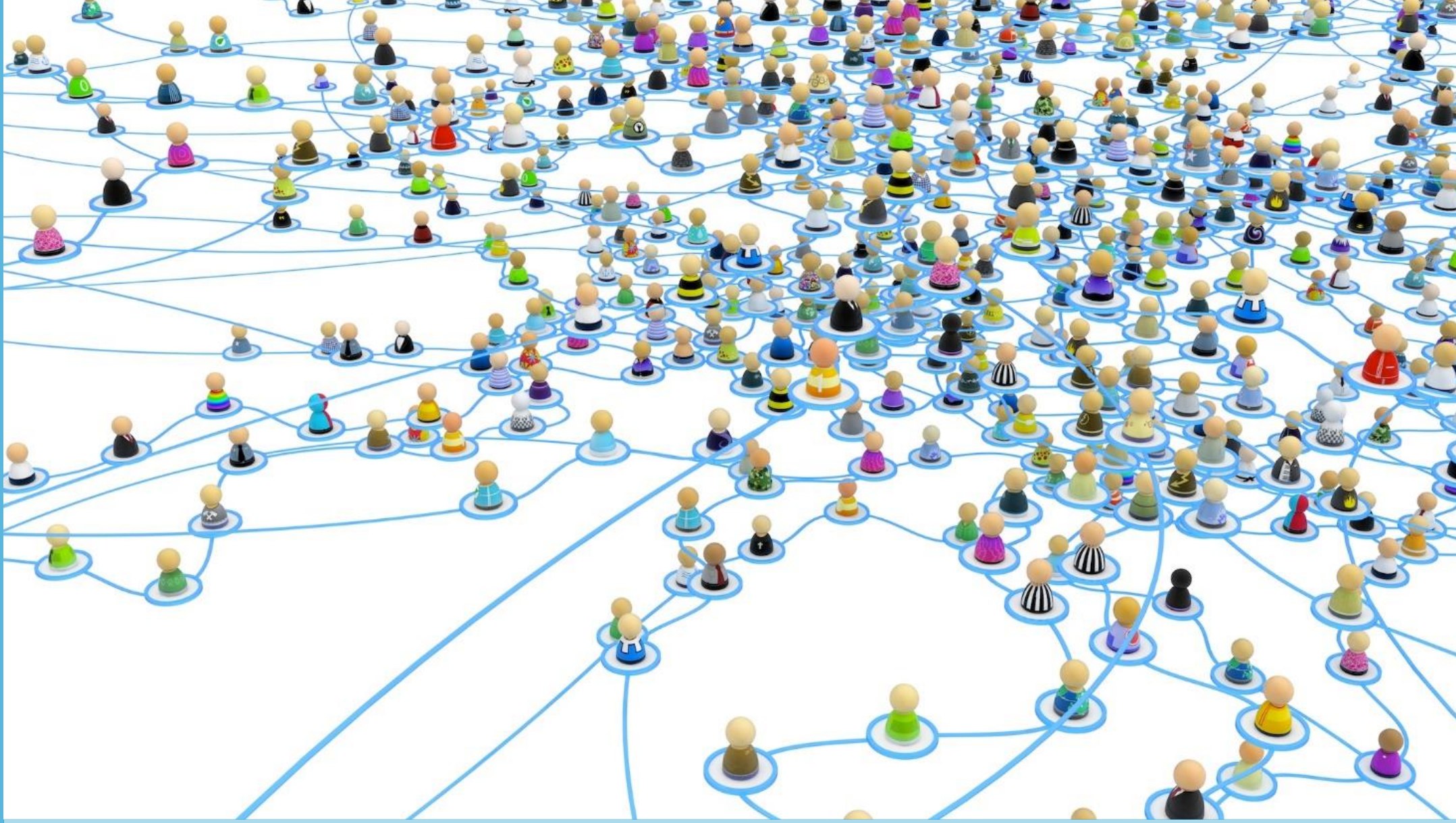
ICO Bench

LinkedIn connections log

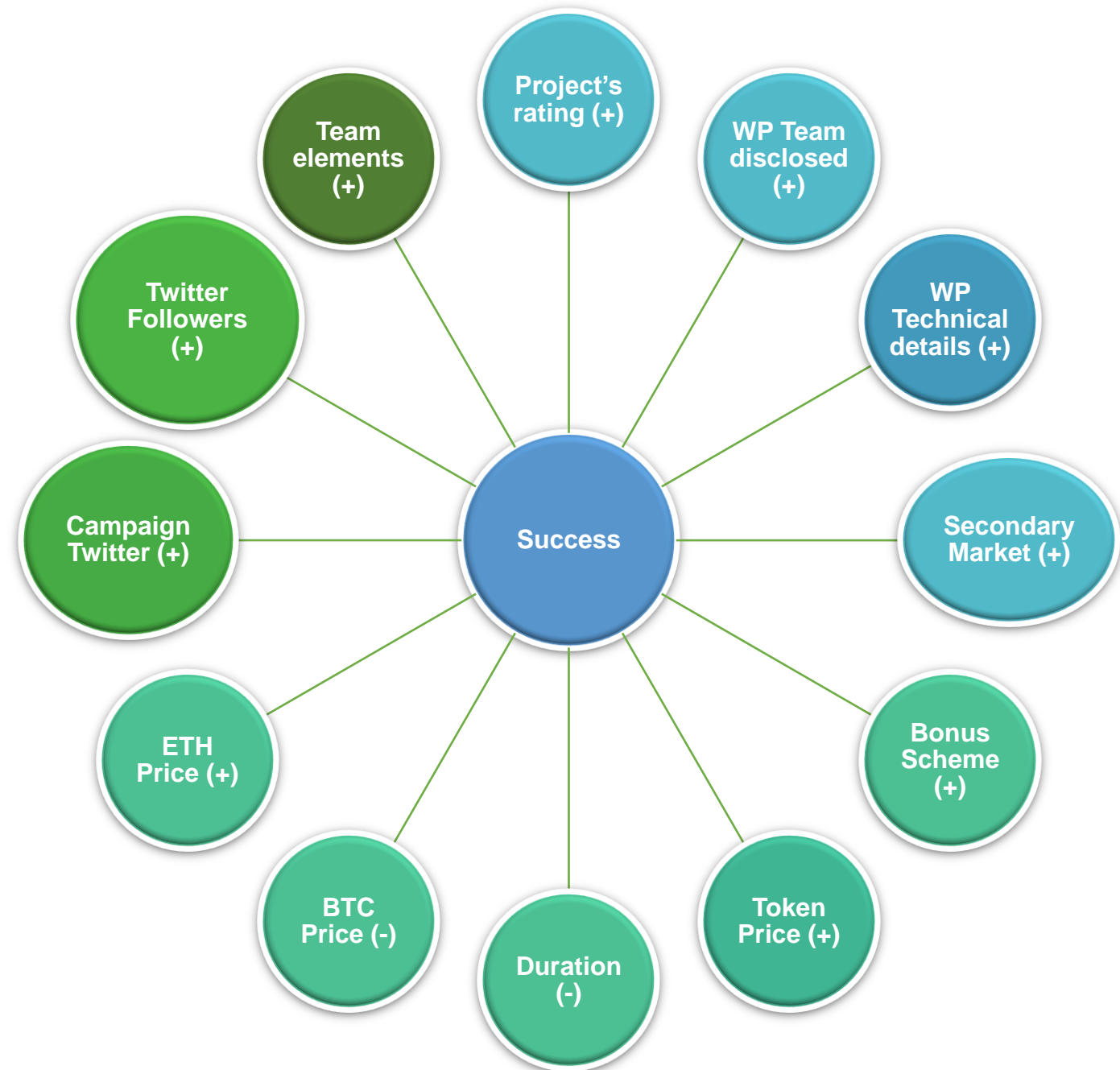
Team members' connections on LinkedIn

LinkedIn

Results



- Importance of the Whitepaper (WP) to reduce information asymmetries (team disclosure, technical details)
- Successful campaigns are associated with high ICO ratings provided by third parties
- Shorter campaigns are more successful
- Higher token prices are associated with ICO success
- Dependence on cryptocurrencies (higher Ethereum prices meant more successful projects)
- Importance of a well managed social network (campaign on Twitter, Twitter followers)
- Importance of the human capital further (team members)
- High importance of the existence of a secondary market



Conclusions



H1 & H2 were verified

- H1. The quality signals provided by the project promoters to the investors in the open system relationships contribute positively to the outcome of a project.
- **We confirm that the signal of expensive tokens complemented by a bonus scheme attracts investors, as does the existence of a larger and heterogeneous team capable of producing positive results when compared to small and homogeneous teams.**
- H2. Projects that provide higher levels of quality information are more successful. Projects that disclose the most information in the whitepaper and have comprehensive documents are more likely to succeed.
- **Projects that continuously inform stakeholders through social networks (being active during the campaign) and keep them engaged (measured by the number of followers) are also more capable of achieving positive results.**

Conclusions

- The success factors can be divided into categories and work as quality signals (campaign, project, team and social networks)
- The ICO market is characterized by strong information asymmetries
- Importance of external ratings and Whitepapers
- Association with cryptocurrencies valorization and token prices
- Importance of social networks and human capital
- Ongoing work: large data set (n=5500, all sectors, macro variables); ICO corporate governance (network analysis)

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