

Socially Responsible Initial Coin Offerings

Ruoran Zhao* and Wenxuan Hou

University of Edinburgh Business School, 29 Buccleuch Place, Edinburgh, Scotland EH8 9JS, UK

Abstract

Initial Coin Offerings (ICOs) as a new form of crowdfunding based on blockchain have experienced explosive growth in recent years. We perform empirical study on 307 ICOs from 2014 to 2018, identify 37 projects which contain highly society-cared visions in their white papers. Socially responsible ICOs aim to improve public wellbeing in education, environment, health and poverty. Our finding highlights that 1) Cultural factors have explanatory power on the determinants of responsible ICOs, supporting the view that cultural traits can be used as indicators of levels of awareness on social responsibility. CSR ICOs are more common in countries with lower individualism and uncertainty avoidance index. 2) CSR ICOs provide significantly more detailed white papers and have more active social networking. 3) CSR ICOs are able to attract capital as much as those of counterparts who do not intentionally improve public welfare. Their outcomes of fundraising are less sensitive to disclosure quality.

Keywords: Initial Coin Offerings, CSR, White Paper, Fundraising, Information Disclosure

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* Corresponding author. Tel: +44 (0) 773 156 6280. E-mails: Ruoran.Zhao@ed.ac.uk (Ruoran) and Wenxuan.Hou@ed.ac.uk (Wenxuan).

1. Introduction

Crowdfunding, an alternative to traditional funding mechanism, is leading a globally popular trend of financial innovation. One unregulated crowdfunding form, known as initial coin offerings (ICOs), is led by blockchain technology. Quickly evolving from a by-product of bitcoins development to an estimated \$10 trillion market (Steves, 2018), blockchain technology provides existing commercial models with two major innovative functions: radical new commercial properties, such as “decentralized” and “ownerless”, secondly, it takes the place of the need for trusted intermediaries (Swan, 2015). Blockchain technology plays an essential role working as the technical foundation of emergent ICO projects. Typically, a new venture (the entity conducting an ICO) sell tokens/cryptocurrencies to broad investors. Blockchain technology-based tokens are designed to work as functional future units (e.g., fixed income tools, ownership rights, royalties) (Fisch, 2018). New blockchain startups are able to bypass the highly strict fund-raising procedure that required by powerful investors (e.g., venture capitalists and banks).

The first ICO dates from July 2013 by the team of *Mastercoin* which created a digital currency built on Bitcoin’s blockchain (Shin, 2017). They raised 5,000 Bitcoins in sum (a value of 500,000 dollar at the same time) from 500 investors. In the year of 2017, the number of ICO projects and also the volume of capital raised by ICOs boosted, with over 300 projects established. Along with increasing popularity of ICOs and blockchains, scholars try to discover series of factors that potentially influence the fundraising outcomes of ICOs in recent years (Adhami et al., 2018; Amsden and Schweizer, 2018; Benedetti and Kostovetsky, 2018; Fisch, 2018). Influential factors include the quality of the project white paper, venture uncertainty, profits distribution plans, the number of Twitter followers of ICOs, pre-ICO campaigns and the underlying core technology, etc.

Based on entrepreneurial finance literature (Ahlers et al., 2015; Mollick, 2014), small investors prefer to invest in ventures with high quality, because they face the larger problem of information asymmetry. Since announcing ICO is a pretty new phenomenon, this problem is even much more significant among ICOs. The signals of valuable ICOs should be essentially observable to attract more investors. In practice, some projects show a strong sense of social responsibilities through organizational goals. They usually provide more detailed project descriptions, more actively interact with potential investors online. We predict that people tend to believe that projects which contribute to public welfare are trustworthy and unlikely involved in frauds, thus add the amount of investment on CSR ICOs. The contradictory stream of literature believes that equity demand is negatively (positively) affected by CSR concerns (strengths) of the issuer (Heinkel et al., 2001; Fama and French, 2007; Chong and Liu, 2016). In the context of IPOs, Chong and Liu (2016) demonstrate issuers with greater CSR concerns are more likely to be associated with downward revisions in the offer price, number of shares offered for sale, and total amount of proceeds raised. However, it is not clear whether the effects of CSR on the demand for new equity issues among ICOs are negative or positive (Q1).

From the theory of asymmetric information, ICOs may use socially responsible visions as a promotion strategy to build reputation and mitigate investors' concern about ICO risks. If our data show that socially responsible ICOs are able to make greater success in fundraising, attract more investor attention, it may suggest that CSR could be used as a promotion tool for ICO fundraising. We next question that whether socially responsible ICOs are predominately led by promotion incentives or cultural conditions (Q2). If we find empirical evidence showing the likelihood for an ICO involved in CSR are influenced by certain cultural traits, it will support the view that CSR was motivated by ethical and philanthropic reasons (Carroll, 1991). By combining a number of

project characteristics with fundraising results of socially responsible ICOs, we exam the third question of whether project characteristics have different effects on fundraising outcomes between socially responsible ICOs and those only-for-profits counterparts (Q3).

To answer the three questions on socially responsible ICOs, we perform an empirical study on 306 ICO projects dated from 2014 to 2018. Because there is no single authoritative source on ICOs, most of the data were hand-collected from a wide range of different websites. Socially responsible ICOs are identified by reading through white papers and project introduction from official websites. Ultimately, there are 37 projects (12% of all observations) which show a sense of social responsibility from their visions. We summarize all important key words which help me to identify projects and we further classify CSR ICOs into 4 major types, namely, Green, Health, Poverty and Education.

We provide empirical evidence that 1) Cultural factors have explanatory power on the determinants of responsible ICOs, supporting the view that cultural traits can be used as indicators of levels of awareness on social responsibility. CSR ICOs are more common in countries with lower individualism and uncertainty avoidance index. 2) CSR ICOs provide significantly more detailed white papers and have more active social networking. 3) CSR ICOs are able to attract capital as much as those of counterparts who do not intentionally improve public welfare. Their outcomes of fundraising are less sensitive to disclosure quality. This study also identifies a worldwide raising trend of ICOs in 2017 and around 8.8 times return of ICO tokens on average which suggests extremely high risks for the investors. There are 9.15% projects that don't have white papers available online. White papers' quality is poor and is uneven across different projects in general and there will be a significant punishment in total fundraising if an ICO avoid disclosing on critical information.

This study makes two major contributions. To our best knowledge, this is the first paper that provide insights on a set of features of highly responsible ICOs, which extends the existing analysis of the financing of socially beneficial projects from investors such as the publicly listed market and the venture capital market, to the ICO arena. We help to understand ICOs as new mechanism used by socially responsible ventures to raise capital. By exploring the different influences from information disclosure quality, cultural conditions and social networking activities on the fundraising outcomes for CSR cared ICOs and non-CSR cared projects, we complement to the growing literature on the entrepreneurial finance (i.e., Merton, 1987; Grullon et al., 2004; Mollick, 2014; Ahlers et al., 2015). Secondly, it contributes to the literature on the governance and fraud issues of crowdfunding (Cumming et al., 2016) by revealing empirical facts on poor quality of ICO disclosure. It suggests managerial opportunism in ICO market, including the high information asymmetries faced by token holders, the irrational behavior potentially existing in ICOs, and the lack of governance mechanisms to protect investors. Our results are highly informative to provide ICO ventures, potential investors, as well as policy makers with practical implications.

The remainder of the paper is structured as follows: Section 2 provides a detailed institutional background of ICOs, introducing the relevant concepts about ICOs, overview of ICO markets, ICO risks and regulations in the world. Section 3 develops hypotheses on questions about socially responsible ICOs, the information disclosure and quality fundraising outcomes. Sections 4 describes data-gathering process and samples, while empirical results and discussion are in section 5. Section 6 draws conclusions and proposes some practical implications.

2. Institutional Background of ICOs

2.1. ICO Basics and Recent Trend

ICOs are conducted based on the framework of blockchains. As an alternative choice of capital collection for entrepreneurs, the term of ICOs is known as initial token offerings, initial crypto-asset offerings and token generation event. Amsden and Schweizer (2018) define ICOs as an unregulated way of crowd-sale to raise capital via a blockchain which sells digital coins in exchange for legal currency or popular cryptocurrencies like Bitcoins and Ethereum. Start-ups apply the mechanism of ICOs to collect funds through selling venture-related tokens to a wide range of investors (Fisch, 2018). Blockchains are typically used to provide an equity crowdfunding platform. Ventures of ICOs make the provisions of the token offering on blockchain platforms including token price, the number of tokens, project schedules and investor rights. When the minimum funding requirements are met, the blockchain platforms process the smart contracts and transfer ownership of the equity (tokens) to the investors. In addition to this security kind of token, there is another type which called utility token. Utility tokens give potential access to the service or product of an organization.

Regardless of the irrational popularity of cryptocurrency projects from 2017, a downward trend is becoming noticeable at present. More caution and investigation should be done before investing in ICOs. Negative news is not rare. In 2018, approximately 1000 projects were dead, found by *DeadCoins* and *Coinopsy*. Those failed ICOs typically never launch a product, have extremely low trading volumes and adoption rates, and end with abandoning their tokens or official websites by founders (*www.cryptoglobe.com*). Crypto-related Ponzi scheme scams often hide behind the guise of ICOs. The Wall Street Journal also finds that more than 15% of ICOs plagiarized whitepapers, copied ideas in 2017 and 2018. Many of projects failed to deliver “improbable returns” as promised. One reason for cryptocurrency scams is the regulatory requirements for ICOs’ fundraising are lax. As reported on *Cointelegraph*, 2018 witnessed a 550%

uptick in the number of ICOs authorized by the SEC through a Form D exemption to sell securities. Form D, the short registration form, is weak in disclosing true information for prospective investors. This form can even be filed post-factum. The poor disclosure issue of ICOs remains a much-concerned topic. Dierksmeier and Seele (2018) suggest that regulatory mapping should be closely linked to cryptocurrencies, as the ethical implications of altcoins depend on regulatory frameworks. On the other hand, investors can carefully investigate ICO teams on platforms such as Reddit, GitHub or Twitter before making investment. Some valuable private information is usually shared online. For example, on January 2019, users on Twitter have raised red flags regarding Substratum, an open-source blockchain project. Such red flags helpfully disclose some suspect issues like allegedly fake Coinbase listing announcement and criminal record of ICO founders (Teodoro, 2019).

2.2. Ethics Issues and Risks

Dierksmeier and Seele (2018) identify both of anti-social and prosocial uses of cryptocurrency. From the negative side, tokens may facilitate shadow banking and transactions in the dark net (weapons, drugs, and sex) and make influence in inflation and deflation. For this reason, Krugman (2013) calls cryptocurrencies as downright evil. Nevertheless, socially beneficial project, FairCoin, with the objective of financing the social and solitary economy sector, and environmentally friendly currencies such as SolarCoin are making efforts on improve public welfare (Meyer and Hudon, 2018). Kleineberg and Helbing (2016) call for social bitcoins, proposing the demand for conducting research on how to use blockchain technology to promote ethical goals in society. The comprehensive roles of different cryptocurrencies make it necessary for business ethicists take tokens research seriously. Angel and McCabe (2015) argue that new cryptocurrency is neither good or evil on its own, but it is the use of digital currency that matters.

Apparently, creating tokens to raising funds remain a number of unethical manners, making investing in ICOs highly risky.

The primary risk of ICOs is information Asymmetry. As the core ICO documents, white papers do not offer much information on the background of founders and advisors, the project's financial circumstances, further allocation plans of funds, and questions like how the team will further improve the technology. Secondly, legal protection for ICO investors is weak. There is no comprehensive established laws and regulations for ICOs. Fundraising via ICOs is a pretty novel phenomenon, so existing applicable law is very limited. Thirdly, investors are usually entitled to very limited token rights. Based on provisions in with papers, tokens are usually non-redeemable and subject to trading restrictions (An, Hou and Liu, 2017). After analyzing over 450 ICO white papers, Zetsche et al. (2018) find that less than 10% of the tokens that belong to investors have practical usage, while others are only applicable to be traded (as speculative instruments). The forth risk is irrational investment behaviors of investors. Considering that so little ICO information is available to potential investors, their investment decision is difficult to rational and optimal. Benedetti and Kostovetsky (2018) point out the risk of overoptimistically priced ICOs. They warn that the Bitcoins bubble is growing much more rapid than other earlier cases. Irrational behavior would cause the problem of capital misallocation. Additionally, the threaten from hackers is not small. Faggart (2017) argues although blockchain technology facilitates secure trading, hackers are still able to wickedly exploit flaws in the blockchains system. A high frequency of scams or theft is shown among ICOs since cryptocurrency accounts are anonymous and token transactions are irrevocable. There are a number of examples, i.e. the cases of The DAO in 2016 and CoinDash/Blox in 2017.

Considering the high investment risk and the easy to fraud, a few governments like China and South Korea do not permit firms to raise funds through ICOs. (Russell, 2017), while the German's Federal Financial Supervisory Authority (BaFin) announced an official consumer warning, reminding investors of the risks related to ICOs in 2017. BaFin pointed out a systemic risk of ICO teams to fraud, money laundering and terrorist financing. In July 2017, Securities and Exchange Commission (SEC) in US published a warning which acknowledged investors the innovative nature of ICOs (https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib_coinofferings). On the other hand, there are still certain jurisdictions such as Singapore and Switzerland treat blockchains and ICOs in supportive approaches. These countries have attracted a number of ICOs to register.

3. Hypothesis Development

3.1. The Determinants of CSR in ICOs

Porter and Kramer (2006) identify moral obligation as a key reason for adopting a socially responsible agenda, thus different variables across countries should matter for responsible investment. Vitell et al. (1993) point out that culture is relevant to environment issues and social responsibility. Milfront and Schultz (2016) argue that the cultural environment is shown in the behavior of households. Specifically, masculine cultures emphasize ambition and ego, while feminine cultures are more care-oriented and selfless. Responsible ICOs care about society on the whole, which is likely to better match with the culture of feminine societies. In addition, lower power inequality cultures value equal opportunity for all individuals in society. It is predicted that high CSR ICOs are more possible to born in countries with lower power inequality and lower masculinity (Cumming and Schwienbacher, 2017). They find cleantech crowdfunding is more likely shown in countries with lower individualism index. It is consistent with the view that culture

which values the long-term development would show a greater sense of social responsibility. Apart from the culture of power inequality and masculinity, uncertainty avoidance possibly could influence the outcome of an ICO. It is predicted that traits of longer-term orientation, less indulgence and less individualism of a country would encourage greater success of a responsible ICO. People will get benefits from socially responsible projects in a long term and generations who are not yet born may further enjoy those benefits. Among cultures which value sustainable development and less indulgence, responsible ICOs will be more welcomed. Therefore, I expect that societies whose cultures emphasize more collectiveness and forbid individualism would make the success of a responsible ICO greater.

H1: Socially responsible ICOs more often originate from countries with specific cultural traits.

3.2. Information Disclosure Quality of ICOs

ICOs are known for opaque information, poor disclosure and high uncertainty. Investors only have access to an extremely limited range of information (Adhami, Giudici and Martinazzi, 2018). ICOs rarely reveal information like business history, background of core team members, financial position or official site (Fisch, 2018). Unlike IPOs, there is no third party (i.e. regulator, exchange and auditor) to monitor the fulfillment of company's promise made in advance (An, Hou and Liu, 2017). Crowdfunding platforms require that documents organized in strict standards, but for ICO ventures, they are much freer to select self-favorable information to disclose. The problem of no standard and universal template for whitepaper makes comparing and choosing ICOs problematic and makes examining the quality of a project difficult.

During the procedure of ICOs, teams typically first publish a document which provides the details for the offering (Benedetti and Kostovetsky, 2018). Resembling to the prospectus in an IPO

(Siegal et al, 2017) or offering documents in crowdfunding, precise description and provisions of an ICO campaign are presented in a document called “whitepaper”. Explained by one of white papers that we have studied in details, the purpose of this document is to provide information including: 1) introduction of products or services, 2) the team who are behind the blockchain technology, 3) the unique and attractive traits to entice clients, 4) development of the recent blockchain technology, 5) the vision for the future improvement, 6) the arrangement of the token-sale and how can investors participate. Apart from whitepaper, a few ICOs present another document called technical paper which gives technical information (i.e. product design and blockchain code). Thus, technical professionals as members of the community are able to review blockchain codes. Thus, whether there are bugs existing in blockchain codes can be easier to be found. For some ICOs, bounties are established to compensate developers, adding experts’ incentives to lower technical risks (An, Hou and Liu, 2017). Even most of ICO ventures publish whitepapers, the quality of information disclosure is not satisfying enough. For example, many projects are not trackable to a country of origin (Adhami, Giudici and Martinazzi, 2018). Some ICOs conceal their address and even countries on purpose. This may damage the attractiveness of an ICO project.

Without common guidelines settled, ICO white papers are published voluntarily. This document is generally seen as an important component of a venture’s ICO campaign (May, 2017; Zetsche et al., 2017). Amsden and Schweizer (2018) believe that founders who are confident that their funding targets will be achieved would be more willing to release their information in details. Conversely, ICO teams who have a lower confidence in success may suppress a large amount of essential details from their whitepapers. Important information in white papers includes country origin, risk disclosure, ICO team member, budget allocation, road map of campaign, etc. (An, Hou

and Liu, 2017; Amsden and Schweizer, 2018). It is predicted that with a shorter texted whitepaper, the venture feels more uncertain of their further development, thus they may not be qualified enough and their projects are unattractive to investors. Research of An, Hou and Liu (2017) shows that if the country origin is concealed in white papers, there will be a significant “penalty” for an ICO project: a 928% decrease in total funds, which encourage better ICO disclosure. Potential investors view qualified disclosure as a positive indicator while assume the worst if information is missing.

Fisch (2018) find publishing a white paper would not make an ICO more valuable, however, a longer texted white paper would. The success of ICOs is positively corelated with the length of white papers, which suggests that the quality of an ICO can be judged by analyzing white papers’ length. Nevertheless, no evidence shows the content of the white paper has relationship with the sum of funds raised. He argues that white papers are not as influential as former expectation. It can be explained by the reason that not many investors read the white papers (May, 2017) or that information disclosed in white papers is not so important for investors to make decisions (Zetzsche et al., 2017). The view of potentially valuable disclosure (i.e. the content of white papers) may not be as important as it would be, is consistent with certain arguments in the crowdfunding by Mollick (2014) and Parker (2014). Similarly, Adhami and Giudici (2018) find that even the information quality disclosed is poor in general (i.e. few details offered on governance and opaque allocation of profits), the success percentage of token offerings is unusually high (at 81%). According to Gefen (2002), online entrepreneurs can show responsible behavior in the long run to gain reputation. Nevertheless, as ICO companies are usually newly established start-ups, they hardly have reputation to be trusted during ICO process. Also, cryptocurrencies have been featured in a few recent hackers stealing troubles, which makes ICO investment riskier and unreliable.

Therefore, it is important for investors get reliable information about ICOs in order to identify valuable projects. It is predicted that qualified disclosure of an ICO help to gain trust and attract more funds.

As socially responsible projects potentially abstract benefits to society and thus become less attractive for investors, the qualified information transferred to potential investors are particularly essential. In order to attract potential investors, socially responsible entrepreneurs would employ special advertising mechanisms. Investors of responsible investment essentially take societal benefits into consideration as part of their returns. Apart from direct returns, the extent to which the firms mitigate social problems is concerned by investors. Although these projects are costly and risky, people are delighted to invest, showing their high sense of social responsibility.

ICO projects which show strong senses of social responsibility in their project descriptions often provide more qualified white papers. Firms which intensively focus on global sustainability is considered to have higher expense and be riskier in being disrupted (Hart and Milstein, 1999). It implies that investors of firms with higher CSR (Corporate Social Responsibility) may bear higher uncertainty in returns. Especially for firms whose business is relevant to green energy, the technology which supports their production is developing at a very early stage and is not reliable enough, thus investors face greater information asymmetries compared with other projects in traditional investment type. The rights of controlling the cost of information asymmetries in venture capital markets are transferred to investors (Cumming, 2008), and unique methods are used by the investors of socially responsible investments (Scarlata and Alemany, 2010). Cumming and Schwienbacher (2017) pay attention to crowdfunding for developing clean energy business. They find that cleantech crowdfunding projects tend to show certain campaigns with more photos, videos and descriptions in more words.

H2: Socially responsible ICOs are more likely to publish more detailed white papers.

3.3. The Fundraising Outcomes of Socially Responsible ICOs

Along with increasing popularity of blockchains, scholars try to discover series of factors that potentially influence the success of ICOs in recent years. Based on entrepreneurial finance literature (Ahlers et al., 2015; Mollick, 2014), small investors prefer to invest in ventures with high quality, because they face the larger problem of information asymmetry. This problem is even much more significant among ICOs, thus signals of valuable ICOs should be essentially observable to attract more investors. Yadav (2017) suggests potential informative signals such as local government's attitude, distribution of the tokens, quality of the project white paper, etc. After empirical research of the funds raised of over 200 ICOs in the year of 2016 and 2017, Fisch (2018) finds that the capital raised are related to certain characteristics of ICO campaign like pre-ICO and the underlying core technology (whether platforms apply Ethereum or not), while the ventures' features are not as important as he expected before. Amsden and Schweizer (2018) find that venture uncertainty (no information on Github or Telegram, shorter whitepapers) has negative association with the success, and higher venture quality (more active networks of founders and larger team size) has positive relationship. Adhami, Giudici and Martinazzi (2018) discover that an ICOs are more likely to succeed when the code source is presented, when pre-ICOs are conducted, when tokens have specific usage in the real world and when ICO projects promise to share profits with their investors. Benedetti and Kostovetsky (2018) show a positive and convex relationship between (log) first day's market capitalization and (log) number of Twitter followers, which indicates that investor attention shown from social media is an important indicator of the success of ICOs.

Corporate social responsibility reflects a firm's responsibility for the wider societal good (Matten and Moon, 2008). Baron (2001) states that CSR, as a socially responsible approach, is able to reinforce a firm's reputation and market position. Managers view CSR as a strategic element for their business. For instance, consumers would be attracted by products and services of firms considered to be responsible corporate citizens (Arli and Lasmono, 2010; Beckmann, 2007). CSR also has positive influence on the maximization of shareholders wealth. Michael (2003) and Sen et al. (2006) believe that CSR attracts capital and increases stock prices on the stock markets. Found by Danko et al. (2008), socially responsible investment attracts funds quicker than the broader universe of investment channels. Because philanthropic behaviors are perceived by the market, responsible firms will gain additional moral value. Accordingly, socially responsible visions could be potential used as a marketing tool for ICO fundraising. If an ICO engages in CSR, it will benefit broadly from reputation and competitive advantage, and attract more investment funds.

Found by Spence (1973), to mitigate information asymmetries, for entrepreneurs who has better writing skills and has a valuable business plan at the same time, they tend to post better qualified project descriptions and describe in more words. Thus, the quality and length of a project description could show the extent of entrepreneurs' efforts in plan a campaign. This argument is supported by recent empirical studies in crowdfunding. Research of Ahlers et al. (2015), Cumming et al. (2014), Mollick (2014) suggests that the result of a crowdfunding project is influenced by the disclosure of images, videos, and the length of text. In practice, there are usually a large number of photos and qualified videos when a project is well planned and prepared. For example, a project is more reliable if the equipment for development exists, or if employees are well educated and experienced. Similarly, qualified disclosure by using soft information and longer descriptions

should be relatively costly to create and be difficult for others to copy in ICOs. If the inherent values of the project and the project team are low, it is hard to manipulate ICO information to attract investors. As the benefits of responsible ICOs to society need clarification in details and recognition from a wide range of investors, the volume of soft information disclosed through official websites or social networking, and the description length of whitepaper should be pretty influential. The success of CSR-driven ICOs is expected to be more sensitive to the effect of photos, video pitches and the length of project information provide. The success of high-CSR ICOs should be more sensitive in having qualified disclosure to reach capital goals, compared with non-CSR orientated campaigns.

H3: The effects of CSR on the demand for new equity issues among ICOs are positive. The fundraising of socially responsible ICOs is more sensitive to the quality of information disclosure than that of ordinary ICOs.

4. Data and Methodology

4.1. Sample

Getting a comprehensive list of ICOs worldwide is a common challenge. Studies in the literature (Amsden and Schweizer, 2018; Benedetti and Kostovetsky, 2018; Fisch, 2018; Zetzsche, Buckley, Arner and Föhr, 2018) combine data from a number of online exchanges, ICOs official websites, whitepapers, social media and other third-party websites. Our ICO sample is from icodata.io, while other platforms including icobench.com, icorating.com, icodrops.com, tokenmarket.net, coinschedule.com, Twitter and ICOs' official websites are used together as a set of supplementary databases. By comparison, the website of icodata.io provide fewer observations

and very limited ICO characteristics, nevertheless, the available information is highly accurate (Benedetti and Kostovetsky, 2018).

Gathered from aggregator websites, the definitions of all the ICO characteristics are presented in Appendix 1. Country origin of each campaign is gathered from tokenmarket.net. If this data is missing from tokenmarket.net, we use other aggregator websites (i.e. icorating.com) and Twitter to find it. Another potential issue of our data collection is that the aggregator websites have not existed since the earliest ICO in 2013.

To better understand CSR ICO projects and gain insights on their disclosure quality, we read through all the white papers of our sample. During this process, a few white papers are not available on ICO official websites, thus we found them by searching on Google. Among 306 ICOs, there are 28 projects that don't have white papers available online. In general, white papers' quality is poor and is uneven across different projects. Usually presented in the form of PDFs, white papers contain 31.6 pages on average, but the standard deviation is high at 19.15 (a range from 1 to 127). After analyzing a large number of white papers, we find that investor rights are pretty weak because of the information asymmetry problem and unjust disclaimers from ICO ventures.

As shown in the introduction section of most white papers, the aim of an ICO project is to solve the problem of weak trust by using blockchain technology. ICO projects are built on highly reliable data storage, either in fintech industry, or generating great innovation in traditional business. Based on the summary of An, Hou and Liu (2017) and that of mine, appendix 2 reports typical components included in a white paper. They are 1) project description, 2) token design, 3) use of funds, 4) roadmap, 5) team members, 6) risk factors, 7) disclaimers. More detailed description of each part is shown in Appendix 2.

Although Fisch (2018) suggests that having a white paper does not increase ICO valuation as most projects own this document, the disclosure quality matters a lot on fundraising. Previous research shows that ICOs which grant investors voting rights and have higher disclosure quality tend to raise more funds. We aim to find differences in white papers' components and the length between the socially cared ICOs and the others, and would these differences be the result of fundraising.

4.2. Descriptive Statistics

On 23th July 2018, there are 2241 ICOs shown on the website of tokendata.io, providing key information including ICOs name, symbol, links to official website and white paper, ICO status (planned, active, completed and failed), the amount of USD raised, tokens' sale and current price, returns and ICOs' period. The first completed ICO recorded on tokendata.io is called Storj-x in August 2014. As shown on tokendata.io, the volume of ICOs increased significantly from only 9 in January 2017 to 80 in June, 2018. At the same time, the fact that 372 failed ICOs in total (a 16.6% failure rate) indicates the inherent risks in ICO investment. To give an overview of our sample, there are totally 306 ICOs in 43 countries or regions which were completed before 17th June, 2018. Compared to the total number of ICOs available on tokendata.io, our sample size is slightly small. It is reasonable because our studies delicately focus on the set of ICOs that have been completed by 17th June, 2018 and also have return ratios available (at the collecting date) to be analyzed. The problem of small sample size is a typical phenomenon among the ICO studies. For example, Fisch (2018) has 238 observations, An, Hou and Liu (2017) have 150 ICOs and Adhami, Giudici and Martinazzi (2018) studied 253 ICO projects.

The raising trend of ICOs is worldwide, as shown in our sample, there are ICOs operating in 43 different countries or regions. I observe a noted increase of ICO volume from the year of 2016

to 2017, with 21 observations in 2016 and 193 observations in 2017. From August 2014 to June 2018, the dominant country by the number of ICOs and the volume of funds is the U.S. About 61 observations are from the U.S. with a volume of \$1,302.6 billion in total. Singapore, ranking at the second, is at around \$938 billion funds, and contributes 38 observations. The third country is Switzerland, with the number of 31 and the volume of \$862.1 billion. Nevertheless, the performance regarding to return ratio is different phenomena. The return rates of ICO tokens in our study is defined as the result of tokens' current price (on 17th June, 2018) divided by the first sale price per unit. Although being banned by regulators, 11 ICOs from China have the highest average returns, whose current prices of tokens are high at 48.22 times of original sale prices on average. The following countries by the performance of returns are Costa Rica and the U.K. with 40.35 and 37.13 times respectively. By comparison, ICOs from the U.S., Singapore and Switzerland have return ratios of 5.95, 2.85 and 4.71 separately, indicating that the ICO markets in these three dominant countries are more developed and less risky. With a dramatic increasing trend of Google searching heat index of "Initial Coin Offering", from July 2014 to July 2018, the general return ratio of tokens has been declined. One possible explanation is that as investors have better understanding on ICOs, their request relatively lower compensation for undertaking risks of ICO projects. Alternatively, as a newly emerged financing channel, there are irrational herding effects in the ICO market. This leads to the phenomenon that investors irrationally buy tokens at unreasonably high prices, but after they get more familiar with the valuation of an ICO project and its tokens, the token price gradually decreases. Table 1 shows the overview of our sample.

[Please insert Table 1 about here]

Some ICOs are with strong sense of social responsibilities (37 observations) and run business for social welfare or non-profitable purposes like healthcare, education, green energy and poverty.

CSR, also called corporate sustainability, usually contains business relevant elements such as environment, the local community, employees and human rights, product safety and quality, governance (preventing corruption), supply chain (sourcing of products and raw materials), etc. We identify society cared ICOs by reading through white papers and official websites. Ultimately, there are 37 projects (12% of all observations) which show a sense of social responsibility from their visions. In the subsample of CSR ICOs, 8 observations are from Singapore, 7 observations are from USA and 5 observations are from Switzerland. These countries rank at the top three in terms of the number of socially responsible ICOs. The fourth country is UK. Compared with the geographic distribution of the entire ICO sample, popular locations of projects are very similar. We summarize all important key words which help us to identify projects and we further classify CSR ICOs into 4 major types, namely, Green, Health, Poverty and Education. There are overlaps among different types since one project may be involved in over one type of responsibility. On the other hand, certain activities could not be classified into any category because the description provided is pretty general. For example, some descriptions only mention words like “Not-for-profit” or “Mutually benefit”. Table 2-1 and table 2-2 give sample overview of socially responsible ICOs and relevant key words for each category in specific.

[Please insert Table 2-1 and Table 2-2 about here]

There are interesting findings about ICOs’ country origins, based on our research. Firstly, the country of each ICO is hard to gather. After combining different data sources, countries of 24 observations out of the total 306 are still not found. Some ICOs conceal their address and even countries, while some ICOs show ridiculous address on their homepages of Twitter such as “Intergalactic Conglomerate”, “Milky Way”, “Crypto”, “Decentralized”, “the Ether” and “Worldwide”. Secondly, for ICOs which don’t actually belong to a single home country, it is hard

to define their countries. They may have more than one country origin and the founders and employees are usually from several different countries. We find that different aggregator websites may show different country origins for a given ICO. The accuracy of information disclosed is really doubtful. Thirdly, some ICOs locate in countries with above-average high standards of living, while some ICOs tend to choose countries of registration or incorporation for legal and tax benefits. In effect, havens like British Overseas Territories, Singapore, Switzerland and the Baltic States like Estonia are ICOs' preferred sites. For example, Starta which is managed by a Russian team, incorporated in Singapore because of the friendly environment (Adhami, Giudici and Martinazzi, 2018).

The largest ICO in our sample, Sirin Labs, located in Switzerland, which successfully raised about \$158 billion in December 2017. But the return of this project may disappoint its investors, which is low at 0.39. As for the most profitable project, Stratis (completed in July 2016, from the U.K.), its current token price is 421.47 times as much as its original sale price. On average, the return of ICOs we observe is around 8.8 times. The abnormally high return ratio of ICO investment suggests extremely great risks for the investors. The products or services provided by ICOs mainly concentrate on financial industry. A large number of ICOs have business relevant to banking, payments, business consulting, crowdfunding, trading, investment and insurance. It seems that blockchain technology is a popular application in the field of fintech. In addition, other industry such as social media, telecommunications, entertainment, IT, data analytics, advertising and logistics can also get development and benefits from blockchains. Specially, business that are considered unethical such as Gambling & Betting (5 observations) and Gaming (12 observations) also launch ICOs. Table 3 presents descriptive statistics for all the dependent and explanatory variables.

[Please insert Table 3 about here]

5. Empirical Results and Discussion

5.1. The Comparisons of Project Characteristics

The key dummy variable, CSR i , divides total projects into two subsamples. It equals to 1 if a given project is society cared one, and equals to 0 otherwise. Firstly, we conduct mean difference test between project characteristics, information disclosure quality and macro-conditions of two subsamples. Results are reported in table 4.

[Please insert Table 4 about here]

Socially responsible projects are more successful in fundraising. With strong sense of social responsibility, ICOs are more likely to raise more funds on average (\$21.02 for CSR projects and \$20.18 million for non-CSR projects). On the other hand, CSR projects have, on average, lower return rates (9.18 for non-CSR projects versus 5.97 for CSR projects). However, there are no statistically significant differences for these figures of subsamples, nor for most of ICO characteristics I studied, except for ICOs number of social network accounts and text length of white papers. In line with our hypothesis, CSR ICOs provide significantly more detailed project description, on average, with an average length of 39 pages. The average figure for non-CSR ICOs is 30.6 pages. This difference is with a 5% level of significance. Campaigns with socially responsible visions provide 6.38 social network links, on average, compared to 5.57 for those without responsible visions. This is significantly different at 10% level, which shows that responsible ICOs are more active in marketing or networking activities. Other project characteristics, although fail to show any statistically significant difference even at 10% level, still show a number of economic differences. Responsible ICOs receive more investor attention, as

they have 4040 more Twitter followers on average. They are likely to post more photos and videos on Twitter (a difference of 34.53 units) and more information on team members in white papers. The average dummy of country disclosure i for responsible projects is 0.97 versus 0.91 for non-responsible projects. The age of a responsible ICO, measured in months and from the date of opening the social media account to the date of token offering, is 3.13 months younger on average. Most of these companies don not have operating history and are still developing at a very early stage. The average dummy of Year_2018 i for CSR projects is 0.06 larger. These differences show a trend that more companies are willing to make contributions to society. Although some ventures are not for profits, others may intend to use socially responsible visions to attract more investors. Overall, responsible ICOs provide more detailed information.

Influences from macro-environment do not make a statistically noticeable difference on socially responsible projects. The average GDP per capita (\$000) for responsible projects is 53.21, while the figure for the rest is 48.4, indicating that responsible projects are more common in countries with more developed markets. These ICOs are also more likely to be associated with higher rule of law scores (a mean difference of 0.15). The cultural conditions at country level, defined by Hofstede (2011), show slight influence, though are not significant. Based on our sample, responsible projects are more popular in countries with higher power distance scores, lower individualism scores, lower uncertainty avoidance scores, lower long-term orientation scores and higher indulgence scores. The average scores of masculinity for both subsamples are pretty similar, around 54.

Next, OLS studies on society cared ICOs are conducted. Table 5 presents results of our study on whether the information disclosure and networking activity of society cared projects are materially different from those of ordinary projects. Major dependent variables are the length of

the text description, the number of photos and videos on Twitter accounts, three dummy indicators of white paper components (risk factors, team members, allocation plan of funds) and the number of social network accounts. The key independent variable is the dummy variable, CSR i . We assess the statistical and economic significance of estimates for CSR i , while control for macroeconomic, cultural and legal conditions. However, all coefficients for CSR i are insignificant in terms of the statistical significance. There is merely a trivial effect on its economic significance. For example, when CSR i equals to 1, a certain project will have 0.712 more social network account, provide 5.55 more pages of its white paper, 39.78 more number of photos and with 10.9% more possibility on disclosing its team members. With respect to the disclosure of risk factors, there is no economically significant difference. Although the data fail to report any significant difference, the economic differences shown in data support the view that entrepreneurs of CSR projects tend to use more detailed information and are more active in networking activities. On the other hand, even with more detailed project information and social networks, CSR ICOs still cannot attract investor attention as much as that of other ICO projects. Our results show that a CSR ICO attracts 12.28% ($=1-e^{*(-0.131)}$) less Twitter followers, and is less likely to disclose its allocation plan of funds (a 13.2% less likelihood).

[Please insert Table 5 about here]

5.2. The Determinants of Socially Responsible ICOs

Table 6 shows results of an analysis on potential factors that determine the probability that an ICO will have socially responsible visions. The dependent variable is the dummy variable CSR i . Potential determinants of society cared projects include cultural dimensions and legal conditions. All estimates are robust to heteroscedasticity. There is evidence that cultural factors have explanatory power on the popularity of responsible ICOs in a given country. Consistent with our

prediction, low levels of individualism help to generate responsible ICOs. Individualism is negatively correlated to the dummy, CSR i , and statistically significant at the 5% level. The scores of uncertainty avoidance and long-term orientation also show similar relationship with CSR ICOs, with the 10% and 5% level of statistical significance respectively. In addition, higher indulgence scores are associated with higher possibility of a project involved in improving social wellbeing, with a 10% significance. The coefficient for masculinity is unexpectedly positive and the effect is statistically significant at the 1% level. It seems that males start to pay more attention and make contributions to public welfare. The last cultural factor, power distance, would not make a material difference in this context. On the other hand, our results do not show material support for the role of legal condition in facilitating society cared campaigns except for the estimates for rule of law scores. Higher rule of law index is positively associated with dependent variable CSR i . Finally, the economic development indicator, GDP per capita, has a negative estimate and it is significant at the 5% level.

[Please insert Table 6 about here]

5.3. The Fundraising Outcomes of Socially Responsible ICOs

Finally, we examine the effect of a set of characteristics on fundraising success for society cared projects versus non-society cared ones, with cultural, economic and legal conditions controlled. we use the amount of funds raised in logarithm form as the dependent variable. The regressions 1, 2 and 3 use the whole sample, while regression 4 is based on the subsample of non-CSR projects. We compare estimates between entire observations and that of non-society cared ICOs. In regression 5, 6 and 7, we add different interactions with the dummy variable, CSR i , to exam whether CSR and non-CSR projects' fundraising results have different sensitivity to 1) investor attention, 2) social networks and 3) the length of white paper with each other. All results

are shown in table 7. In regression 1, 2 and 3, we find no evidence of any statistically significant effect from the dummy of CSR i . This result can be interpreted as: although CSR ICOs may not run business with an aim of creating greatest value for their investors, they can still be as successful as those companies who do not intentionally improve society public welfare. From the aspect of economic difference, both of coefficients of CSR i in regression 1, 2 and 3 are negative. A CSR ICO tends to raise a 21.89% ($=1-e^{(-0.247)}$) less amount of funds in dollars. Therefore, it is suggested that socially responsible visions may make an ICO less attractive for investors.

It is very informative to compare results between regression 3 and 4. We find the fundraising of non-CSR ICOs is less sensitive to the number of Twitter followers, while it is with higher sensitivity to the page of white papers and disclosure of risk factors. Specifically, in subsample of non-CSR ICOs, the coefficients for the natural logarithm of Twitter followers is 0.193, for the page of white papers is 0.02 and for the disclosure dummy of risk factors is -0.526. For the entire sample, these three estimates are 0.247, 0.016 and -0.501 respectively. These estimates are all statistically significant. Our findings can be interpreted as that without visions related to social responsibility, qualified disclosure of ICOs will lead to greater success in terms of fundraising, and they will get more serious punishment if their disclosure quality is poor. Investor attention, on the other hand, becomes less important for non-CSR ICOs' fundraising. These findings are inconsistent with our predicted hypothesis. However, a potential reason can be that investors have higher expectations and more restrict requirements for projects that are not specialized in social welfare because they invest only for personal earnings. By contrast, CSR ICOs are not considered to be prone to commit frauds, thus the information disclosure quality of these projects may not be important reference for investment decision making. In addition, when a CSR ICO has already attracted enough investor attention before its fundraising campaign, they will achieve greater

success than their non-CSR counterparts. This finding highlights the importance for a society-cared ICO making an endeavor to gain broad attention through social networking. The empirical evidence we discussed before supports this explanation. Specifically, CSR ICOs have statistically significant 0.81 more networking links than that of non-CSRs on average. Moreover, in regression 3, the coefficient for the dummy variable CSR i is negative suggested that socially responsible visions may make an ICO raised fewer funds. In practice, some campaigns use social responsibility related visions as a kind of propaganda. Our results show that although CSR can help an ICO to avoid strict investor expectations on disclosure, CSR ICOs may become less attractive for investors, and thus they should make more efforts on self-promotion.

We add interactions between CSR i and the number of Twitter followers, separately in regression 5 and 6 to further exam whether social responsibility visions make the fundraising result of a project more or less sensitive to certain project characteristics. Firstly, the coefficient for $(CSR\ i=1)*\ln Twitter_Followers$ is 0.317, while that for $(CSR\ i=0)*\ln Twitter_followers$ is 0.235. Both of two estimates are statistically significant, supporting that CSR ICOs' fundraising is more sensitive to investor attention. Secondly, the coefficient for $(CSR\ i=1)*White_paper_length$ is 0.002, while that for $(CSR\ i=0)*White_paper_length$ is 0.019. Only the estimate for non-CSR ICOs is statistically significant, supporting that CSR ICOs' fundraising is less sensitive to information disclosure quality.

Overall, our results fail to support the view that CSR ICO projects have to overcome more pronounced information asymmetries to get success. For CSR ICOs, better use of soft information and more qualified information disclosure won't lead to substantially greater achievement than non-CSR projects. We did not run a separate regression for the CSR subsample because the sample size of CSR ICOs is too small (only 37), which will lead to unrepresentative estimates. In addition,

there are some missing data among a set of country level controls, which makes our sample size even smaller. To solve this concern, we use a dummy variable, country disclosure i to replace all the country level controls. This variable equals to 1 if the country origin of an ICO is known, and equals to 0 otherwise. Next, we replicate very similar regressions that we discussed before. The results of replicated regressions are presented in table 8. We still fail to find a direct effect from the dummy variable CSR i on the amount of fund raised. However, for the subsample of non-CSR projects, disclosure of country origin will help to increase the amount of funds by 240.61% ($=e^{0.861}$), significant at 1%. The figure for the whole sample is 236.5% ($=e^{0.828}$), still statistically significant at 1%. It seems that the disclosing information on country origin is more important for the fundraising outcomes of non-CSR ICOs. From regression 3 and 4, I find very similar evidence to that of table 7, supporting the statements that CSR ICOs' fundraising is more sensitive to investor attention, and that CSR ICOs' fundraising is less sensitive to information disclosure quality.

[Please insert Table 7 and Table 8 about here]

6. Conclusion

ICOs have the potential to change how startup companies raise money, providing more control to entrepreneurs, greater liquidity to investors, and additional investment opportunities to early adopters. As a nascent finance tunnel, the ICO market is way ahead of policy, regulation. Extremely great risks make investors hesitant to invest. Socially responsible visions could potentially be used as a promotion strategy to build reputation and mitigate investors' concern about ICO risks.

We provide insights on high social-responsible ICOs by exploring the different influences from social networking activities, information disclosure quality and cultural conditions on the fundraising outcomes for CSR cared ICOs and non-CSR cared projects. Nowadays, although the role of CSR has been emphasized, investors may still be unwilling to involve in responsible investment. We find that 1) Cultural factors have explanatory power on the popularity of responsible ICOs. Supporting the view that cultural traits can be used as indicators of levels of awareness on social responsibility, CSR ICOs are more common in countries with lower individualism and uncertainty avoidance index. 2) CSR ICOs are able to develop as successful as those counterparts who do not intentionally improve society public welfare. 3) Most importantly, CSR ICOs provide significantly more detailed project description and have more active social networking, although these features do not necessarily lead to more amount of funding. Since we find that CSR ICOs' fundraising is more sensitive to investor attention, they should make more efforts on self-promotion in the future.

Our results are highly informative for ICO ventures who interested in contributing to society, it gives them advice about potential methods to maximize their success potential. To promote investor recognition, companies may intentionally make themselves more visible on the Internet in order to attract the attention of investors. It is suggested that rising investor attention and improving disclosure quality are valuable strategies to philanthropic ICO funders. For policy makers who are interested in developing regulations for ICOs, they may find our findings useful as a first step to introducing effective regulations for future token offerings. To deter fraudulent activities, an approach could be the introduction of a reporting standard, such as the creation of a detailed white paper which contains a full disclosure of the project's necessary information (i.e. the quality indicators identified in our study), instead of banning ICOs altogether. Designing sound

regulations for ICOs would simultaneously protect investors and allow entrepreneurs to continue using this innovative channel of fundraising, and enable socially responsible ICOs to be developed in a better legal environment.

References

Angel, J., & McCabe, J. (2015). The Ethics of Payments: Paper, Plastic, or Bitcoin? *Journal of Business Ethics*, 132(3), 603-611.

Abugre, J. B., (2014). Managerial role in organizational CSR: empirical lessons from Ghana. *Corporate Governance: The international journal of business in society*, 14 (1), 104-119.

Adhami, S., Giudici, G., & Martinazzi, S., (2018). Why Do Businesses Go Crypto? An Empirical Analysis of Initial Coin Offerings. *Journal of Economics and Business*, Forthcoming.

Ahlers, G.K.C., Cumming, D.J., Guenther, C., & Schweizer, D. (2015). Signaling in Equity Crowdfunding. *Entrepreneurship Theory and Practice*, 39, 955-980.

An, J., Hou, W., & Liu, X., (2017). Initial Coin Offerings: Investors Protection and Disclosure.

Amsden, R., & Schweizer, D., (2018). Are Blockchain Crowdsales the New 'Gold Rush'? Success Determinants of Initial Coin Offerings.

Arli, D.I. & Lasmono, H.K. (2010), Consumers' perception of corporate social responsibility in a developing country. *International Journal of Consumer Studies*, 34(1), 46-51.

BaFin (2017). Verbraucherwarnung: Risiken von Initial Coin Offerings (ICOs). Available at: https://www.bafin.de/SharedDocs/Veroeffentlichungen/DE/Meldung/2017/meldung_171109_ICOs.html (in German). Last accessed: February 28th, 2018.

Baucus, M.A., & Mitteness, S.R. (2016). Crowdfunding: Avoiding Ponzi entrepreneurs when investing in new ventures. *Business Horizons*, 59(1), 37-50.

Beckmann, S. (2007). Consumers and corporate social responsibility. *Australasia Marketing Journal*, 15(1), 27-36.

Benedetti, H., & Kostovetsky, L. (2018). Digital Tulips? Returns to Investors in Initial Coin Offerings.

Carroll, A.B. (1991). The pyramid of corporate social responsibility: toward the moral management of organizational stakeholders. *Business Horizons*, 34(4), 39-48.

Chong, B. S. & Liu, Z. (2016). Corporate Social Responsibility and Demand for New Equity Issues. Available at SSRN: <https://ssrn.com/abstract=2505779> or <http://dx.doi.org/10.2139/ssrn.2505779>

Cumming, D.J. (2008). Contracts and exits in venture capital finance. *Rev. Financ. Stud.*, 21, 1947-1982.

Cumming, L., & Schwienbacher. (2017). Crowdfunding cleantech. *Energy Economics*, 65, 292-303.

Danko, D., Goldberg, J.S., Goldberg, S.R. & Grant, R. (2008). Corporate social responsibility: the United States vs Europe. *Journal of Corporate Accounting and Finance*, September/October, 41-47.

Dierksmeier, C. & Seele, P. (2018). Cryptocurrencies and Business Ethics. *Journal of Business Ethics*, 152(1), 1–14.

Faggart, E. (2017). The top 5 cryptocurrency failures of all time. *Bitconist.com*.

Fama, E.F. & French, K.R. (2007). Disagreement, tastes, and asset prices. *Journal of Financial Economics* 83, 667-689.

Fang, L.H., & Peress, J. (2009). Media coverage and the cross-section of stock returns. *J. Finance*, 64, 2023-2052.

Faridi, O. (2019). Nearly 1,000 Dead Cryptocurrency Projects Identified By Coinopsy & DeadCoins | CryptoGlobe. [online] CryptoGlobe. Available at: <https://www.cryptoglobe.com/latest/2018/12/nearly-1000-dead-cryptocurrency-projects-identified-by-coinopsy-deadcoins/> [Accessed 12 Jan. 2019].

Fisch, C. (2018). Initial Coin Offerings (ICOs) to Finance New Ventures: An Exploratory Study.

- Gefen, D. (2002). Customer loyalty in e-commerce. *Journal of the Association for Information Systems*, 3(1), 27-51.
- Grullon, G., Kanatas, G., & Weston, J.P. (2004). Advertising, breadth of ownership, and liquidity. *Rev. Financ. Stud.*, 17, 439-461.
- Hart, S., & Milstein, M. (1999). Global sustainability and the creative destruction of industries. *Sloan Manag. Rev.* 41(1), 23-33.
- Heinkel, R., Kraus, A., Zechner, J. (2001). The effect of green investment on corporate behavior. *Journal of Financial and Quantitative Analysis* 36, 431-449.
- Huillet, M. (2019). 2018 Sees 550% Uptick in Exempt ICO Securities Offerings Filed With the US SEC: Report. [online] Cointelegraph. Available at: <https://cointelegraph.com/news/2018-sees-550-uptick-in-exempt-ico-securities-offerings-filed-with-the-us-sec-report> [Accessed 12 Jan. 2019].
- Kharpal, A. (2017). Initial Coin Offerings Have Raised \$1.2 Billion and Now Surpass Early Stage VC Funding, CNBC (Aug. 9, 2017), Available at: <https://www.cnbc.com/2017/08/09/initial-coin-offeringssurpass-early-stage-venture-capital-funding.html>.
- Kleineberg, K., & Helbing, D. (2016). A ‘social Bitcoin’ could sustain a democratic digital world (April 27, 2016). SSRN: <http://ssrn.com/abstract=2771326>.
- Krugman, P. (2013). Bitcoin is evil. In: New York Times Blog. Retrieved January 12, 2015, from <http://krugman.blogs.nytimes.com/2013/12/28/bitcoin-is-evil/>.
Matten, D. & Moon, J. (2008). ‘Implicit’ and ‘explicit’ CSR: a conceptual framework for a comparative understanding of corporate social responsibility. *Academy of Management Review*, 33(2), 404-424.

May, R. (2017). Scrap the white paper: How to evaluate tokens and blockchains. Available at: <https://www.coindesk.com/scrap-white-paper-evaluate-tokens-blockchains>. Last accessed: February 28th, 2018.

Merton, R. (1987). A simple model of capital market equilibrium with incomplete information. *J. Finance*, 42, 483-510.

Meyer, C., & Hudon, M. (2018). Money and the Commons: An Investigation of Complementary Currencies and Their Ethical Implications. *Journal of Business Ethics*, 1-16.

Michael, B. (2003). Corporate social responsibility in international development: an overview and critique. *Corporate Social Responsibility and Environment Management*, 10(3), 115-128.

Milfront, T.L., & Schultz, P.W. (2016). Culture and the natural environment. *Curr. Opin. Psychol.*, 8, 194-199.

Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, 29(1), 1-16.

Parker, S.C. (2014). Crowdfunding, cascades and informed investors. *Economics Letters*, 125(3), 432–435.

Porter, M. E. & Kramer M. R. (2006). Strategy and society: The link between competitive advantage and Corporate Social Responsibility. *Harvard Business Review* 84(12), 78-92.

Rau, P. R. (2017). Law, trust, and the development of crowdfunding. *Social Science Electronic Publishing*.

Russell, J. (2017). First China, now South Korea has banned ICOs. Available at: <https://techcrunch.com/2017/09/28/south-korea-has-banned-icos/>. Last accessed: February 28th, 2018.

SEC. (2017). Investor bulletin: Initial coin offerings. Available at: https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib_coinofferings. Last accessed: February 15th, 2018.

Sen, S., Bhattacharya, C.B. & Korschun, D. (2006). The role of corporate social responsibility in strengthening multiple stakeholder relationships: a field experiment. *Journal of the Academy of Marketing Science*, 34 (2), 158-166.

Shin, L. (2017). Here's the man who created ICOs and this is the new token he's backing. Available at: <https://www.forbes.com/sites/laurashin/2017/09/21/heres-the-man-who-created-icos-and-this-is-the-new-token-hes-backing>. Last accessed: February 28th, 2018.

S., L. (2015). Who is Satoshi Nakamoto? The Economist explains. *The Economist*. Archived from the original on 21 August 2016. Retrieved 3 November 2015.

Scarlata, M., & Alemany, L. (2010). Deal structuring in philanthropic venture capital investments: financing instrument, valuation and covenants. *J. Bus. Ethics*, 95, 121-145.

Spence, M. (1973). Job market signaling. *Q. J. Econ.*, 87(3), 355-374.

Steves, M. (2018). Crypto Currency & Blockchain Technology: A Decentralized Future. RBC Capital Markets Equity Research, Available at <https://ca.rbcwealthmanagement.com/documents/616937/616953/Crypto+Currency+%2B%20Blockchain+-+RBC+-+2018+01+03.pdf/6f959d80-b77b-43c4-80cb-38e1187793a1>.

Swan, M. (2015). *Blockchain: Blueprint for a New Economy*. O'Reilly and Associates.

Teodoro, N. (2019). Substratum: Project Facing Allegations of Missing ICO Funds | CryptoGlobe. [online] CryptoGlobe. Available at: <https://www.cryptoglobe.com/latest/2019/01/substratumproject-facing-allegations-of-missing-ico-funds/> [Accessed 12 Jan. 2019].

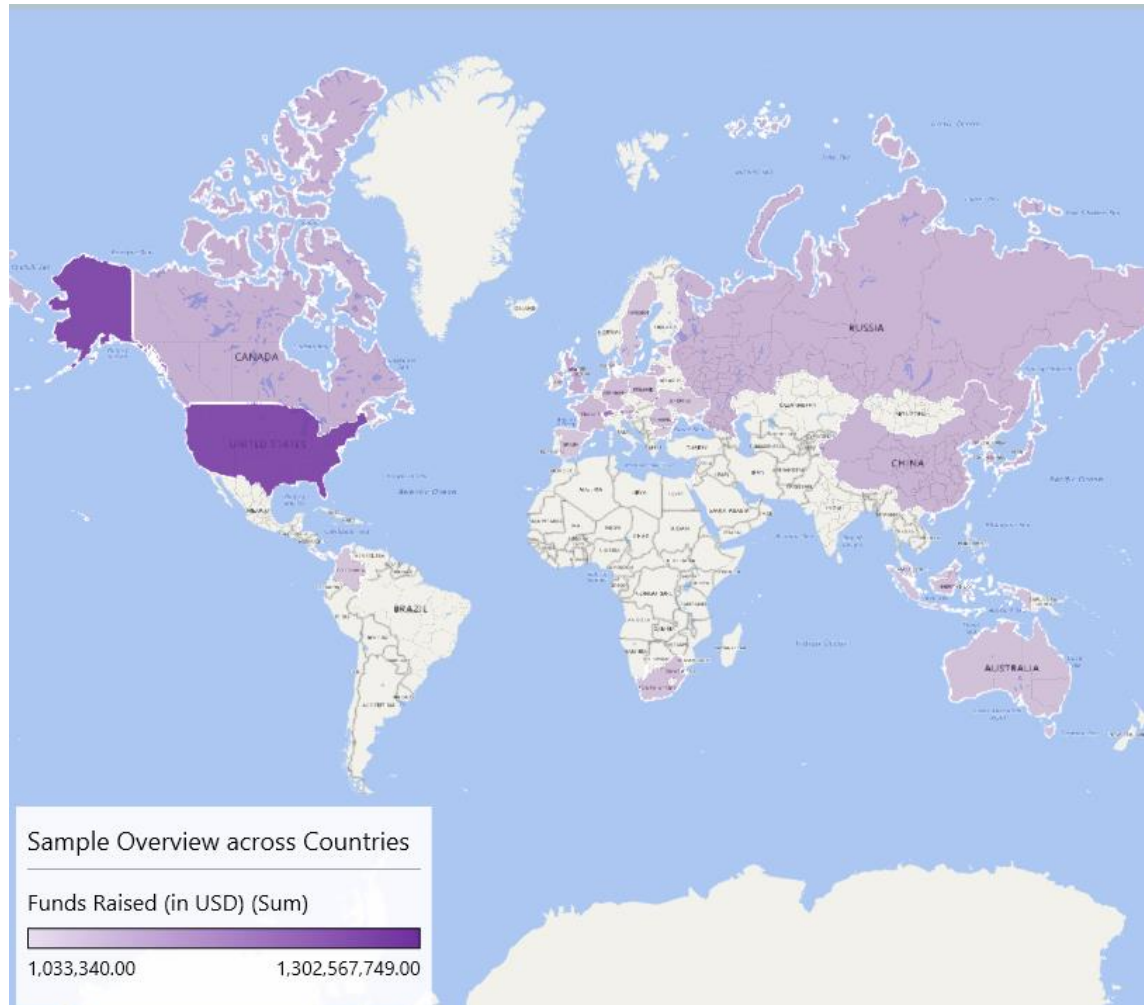
Vitell, S.J., Nwachukwu, S.L., & Barnes, J.H. (1993). The effects of culture on ethical decision making: an application of Hofstede's typology. *J. Bus. Ethics*, 12, 753-760.

Yadav, M. (2017). Exploring Signals for Investing in an Initial Coin Offering (ICO). Available at SSRN: <https://ssrn.com/abstract=3037106> or <http://dx.doi.org/10.2139/ssrn.3037106>.

Yermack, D. (2017). Corporate Governance and Blockchains. *Review of Finance*, 21(1), 7-31.

Zetsche, D. A., Buckley, R. P., Arner, D. W., & Föhr, L. (2018). The ICO Gold Rush: It's a Scam, It's a Bubble, It's a Super Challenge for Regulators. University of Luxembourg Law Working Paper, No. 11/2017; UNSW Law Research Paper, No. 83; University of Hong Kong Faculty of Law Research Paper, No. 2017/035; European Banking Institute Working Paper Series, 18/2018.

Figure 1: Sample Overview Map



Appendix 1: Variable Definitions

Variable Name	Description and Calculation
<i>Dependent Variable</i>	
Amount raised (log.)	The natural logarithm of amount raised in the ICO in USD
Token return	The result of tokens' current price (on 17th June) divided by the first sale price per unit
<i>ICO Characteristics</i>	
Duration (in days)	The number of days between the completion of the ICO and the first trading day
Year: 2018 (dummy)	This dummy variable equals to 1 if an ICO is completed in 2018, equals to 0 otherwise
Followers	The number of an ICO's Twitter followers
Tweets	The number of an ICO's Tweets post
Twitter age (in months)	The number of months between the date when the Twitter account was registered and the starting of ICO campaign
Photos or Videos	The number of pictures or videos presented on an ICO's Twitter account
Networking links	The number of external links of the project to social networks (like Facebook, Twitter, or any other community website)
<i>White Paper Quality</i>	
Risk Factor (dummy)	This dummy variable equals to 1 if an ICO's white paper contains information of risk factors, equals to 0 otherwise
Allocation plan of funds (dummy)	This dummy variable equals to 1 if an ICO's white paper contains information of allocation plan of funds, equals to 0 otherwise
Team member (dummy)	This dummy variable equals to 1 if an ICO's white paper contains information of team member, equals to 0 otherwise
text length (in pages)	The number of pages in the white paper

Appendix 1: Continued

<i>CSR Dummy Characteristics</i>	
CSR indicator	This dummy variable equals to 1 if an ICO's involed in improving social welfare (based on its white paper, it should have socially responsible visions), equals to 0 otherwise
Green	This dummy variable equals to 1 if an ICO's involed in improving 'Green' type of social welfare, equals to 0 otherwise
Healthcare	This dummy variable equals to 1 if an ICO's involed in improving 'Healthcare' type of social welfare, equals to 0 otherwise
Poverty	This dummy variable equals to 1 if an ICO's involed in improving 'Poverty' type of social welfare, equals to 0 otherwise
Education	This dummy variable equals to 1 if an ICO's involed in improving 'Education' type of social welfare, equals to 0 otherwise
<i>Country Level Controlling Factors</i>	
Country disclosure dummy	This dummy variable equals to 1 if an ICO's white paper cointains information of country origin, equals to 0 otherwise.
GDP per capita (\$000)	The country GDP per capita in 2016 (from World Bank, in USD)
Corruption	The country corruption score, the country rule of law score in a given country (from World Bank, as of 2016, the latest year available)
Rule of Law	The country rule of law score in a given country (from World Bank, as of 2016, the latest year available)
Steps	The number of steps that a start-up firm has to comply with to operate legally (DLS, 2002, QJE)
Anti-director index	The anti-director score that evaluates the quality of legal protection for minority shareholders and ranges from 0 to 6 (LLS, 2002, JF)
Trust	An indicator of Trust that measures how much people trust a stranger they meet for the first time in a certain country (taken from World Value Surveys)

Appendix 1: Continued

Country level cultural factors (offered by geert-hofstede.com, defined by Hofstede in 2011)

Power distance	This dimension expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally. People in societies exhibiting a large degree of power distance accept a hierarchical order in which everybody has a place and which needs no further justification. In societies with low power distance, people strive to equalize the distribution of power and demand justification for inequalities of power.
Individualism	This dimension is defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families. A society's position on this dimension is reflected in whether people's self-image is defined in terms of "I" or "we."
Masculinity	This dimension represents a preference in society for achievement, heroism, assertiveness, and material rewards for success. Society at large is more competitive. Its opposite, femininity, stands for a preference for cooperation, modesty, caring for the weak, and quality of life. Society, at large, is more consensus-oriented.
Uncertainty Avoidance	The uncertainty avoidance dimension expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. How a society deals with the fact that the future can never be known? Countries exhibiting strong UAI maintain rigid codes of belief and behavior and are intolerant of unorthodox behavior and ideas. Weak UAI societies maintain a more relaxed attitude in which practice counts more than principles.
Long term orientation	Every society must maintain some links with its own past while dealing with the challenges of the present and the future. Societies prioritize these two existential goals differently. Societies who score low on this dimension, for example, prefer to maintain time-honored traditions and norms while viewing societal change with suspicion. Those with a culture which scores high, on the other hand, take a more pragmatic approach: they encourage thrift and efforts in modern education as a way to prepare for the future.
Indulgence	Indulgence stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun. Restraint stands for a society that suppresses gratification of needs and regulates it by means of strict social norms.

Appendix 1: Continued

<i>Cryptocurrency Controlling Factors</i>	
Media coverage	This index is constructed by searching the popularity of “Initial Coin Offering” in the month of a given ICO issuing, which is calculated by Google Trends. Following existing studies, I convert it into its logarithm form.

Appendix 2: White Paper Structure

Component	Content
Project description	It gives detail information on the project including the time, price and distribution of the tokens. The price of ICOs more often are set based on other type of cryptocurrencies and only a few accept fiat currency (e.g. US dollars).
Token design	It describes the design, purchase and use of the token in the project as well as the right of token holder, such as whether token holders have the claim on project assets, whether token holders receive dividends, and whether they have voting rights.
Use of funds	It indicates how the raised fund will be spent on various items such as R&D, marketing, and legal services. Currency-type projects sometimes set up a foundation to receive the fund raised from ICO.
Roadmap	It presents the milestone and developing plan for the projects.
Team members	It introduces the managers, developers and often the advisors of the project.
Risk factors	It discloses the uncertainty involved in the business such as the threat of cyber-attacks and uncertainty of the monetary policy for currency-type blockchain-based token.
Disclaimers	It claims that the purchasing of token is not a form of investment. Tokens do not represent the ownership over company and have no governance rights over the company or project. This investor warning section may declare that company does not generate the value of token and no dividend type payment for token holders.

Table 1: Sample Overview

This table shows the number of ICOs and amounts raised in USD (amount raised) for each respective year in each country. The sample period is 2014 through June 2018.

Country/Region	2014	2015	2016	2017	2018 (June)	Total:	Funds Raised (in USD)	Return (on average)
USA	1	1	2	38	19	61	\$1,302,567,784	5.95
Singapore				24	14	38	\$938,039,001	2.85
Switzerland		1	3	18	9	31	\$862,114,785	4.71
UK			2	14	6	22	\$269,976,039	37.13
Hong Kong				8	3	11	\$157,311,459	2.21
Russia				10	1	11	\$180,923,204	1.67
China			3	2	6	11	\$194,061,103	48.22
Canada			1	8	1	10	\$229,214,682	2.09
Estonia				3	5	8	\$160,872,805	1.03
Slovenia			1	3	2	6	\$67,849,297	2.62
Cayman Islands				3	3	6	\$158,410,553	0.52
France				3	2	5	\$132,888,585	1.75
Lithuania				3	2	5	\$134,854,120	0.33
Netherlands				3	1	4	\$38,460,413	0.79
Australia			1	2	1	4	\$62,756,589	2.27
Germany				4		4	\$79,970,960	3.56
Japan				4		4	\$232,631,136	0.91
Spain				3		3	\$25,507,736	4.47
Gibraltar				2	1	3	\$88,072,053	0.49
Denmark			2			2	\$2,063,427	0.30
Luxembourg				2		2	\$6,303,422	2.01

Table 1: Continued

Country/Region	2014	2015	2016	2017	2018 (June)	Total:	Funds Raised (in USD)	Return (on average)
Poland			1	1		2	\$14,421,148	18.28
Sweden				1	1	2	\$29,242,981	0.39
Liechtenstein				1	1	2	\$42,990,653	4.74
Indonesia					2	2	\$54,665,992	8.82
South Korea				2		2	\$54,763,996	10.77
Romania					2	2	\$60,489,312	0.21
South Africa				2		2	\$69,472,725	12.01
Panama				1		1	\$1,033,340	0.45
Ireland				1		1	\$2,836,724	14.18
Nevis				1		1	\$2,902,872	4.63
Malaysia				1		1	\$4,500,000	1.47
Bulgaria			1			1	\$5,500,000	34.71
Belize				1		1	\$10,837,500	2.70
Marshall Islands					1	1	\$12,129,522	0.39
Taiwan				1		1	\$13,370,560	0.71
Seychelles				1		1	\$14,123,538	0.49
Austria				1		1	\$19,628,888	0.65
Colombia					1	1	\$20,478,000	0.34
Isle of Man				1		1	\$32,345,171	0.34
Israel				1		1	\$153,000,000	0.86
Not found			4	15	5	24	\$224,190,626	12.65
in Total	1	2	21	193	84	306	\$6,195,479,952	8.79

Table 2-1: Major Types of Socially Responsible ICOs and Key Words

Category	Obs.	Key words
Green	12	Renewable energy, Climate friendly, Economically, Solar, Ecological project, Green manufacture, Clean country sustainability, Carbon dioxide emissions, Recycling
Health	8	Healthcare, Food safety, Safe and healthy eating, Diseases
Poverty	7	Donation, Eliminating world poverty, Solving hunger, Poverty
Education	7	Proper education, Reward those who help to educate others
Others	6	Not-for-profit, Mutually benefit, Smart cities, Agriculture, Transportation

Table 2-2: Socially Responsible ICOs Sample Overview

Country origin	Volume	Percentage
Singapore	8	21.05%
USA	7	11.48%
Switzerland	5	16.13%
UK	3	13.64%
Australia	2	50.00%
Hong Kong	2	18.18%
Lithuania	2	40.00%
Canada	1	10.00%
Colombia	1	100.00%
Indonesia	1	50.00%
Malaysia	1	100.00%
Romania	1	50.00%
Slovenia	1	16.67%
Spain	1	33.33%
Not found	1	4.17%
Total:	37	12.09%

Table 3: Descriptive Statistics

This table gives descriptive statistics (mean, standard deviation, min, and max) for the full sample.

Variable name	Obs.	Mean	Std.	Min	Max	Data source(s)
<i>Dependent variable</i>						
Amount raised (log.)	306	16.17	1.45	9.64	18.88	Tokendata
Token return	306	8.79	38.48	0.01	421.47	Tokendata
<i>CSR dummy characteristics</i>						
CSR indicator	296	0.13	0.33	0	1	White papers
Green	296	0.04	0.20	0	1	White papers
Healthcare	296	0.02	0.15	0	1	White papers
Poverty	296	0.02	0.15	0	1	White papers
Education	296	0.02	0.14	0	1	White papers
<i>ICO characteristics</i>						
Duration (in days)	306	24.64	27.56	1	365	Tokendata
Year: 2018 (dummy)	306	0.27	0.44	0	1	Tokendata
Followers	305	27083.30	38321.34	105	319000	Twitter
Tweets	305	1046.52	2848.21	1	45800	Twitter
Twitter age (in months)	306	11.45	17.44	-11	106	Twitter and Tokendata
Photos or Videos	305	190.93	229.41	0	1789	Twitter
Networking links	306	5.66	2.57	0	15	Each ICO's official website
<i>White paper quality</i>						
Risk Factor (dummy)	278	0.36	0.48	0	1	White papers
Allocation plan of funds (dummy)	277	0.50	0.50	0	1	White papers
Team member (dummy)	278	0.59	0.49	0	1	White papers
text length (in pages)	284	31.58	19.15	1	127	White papers

Table 3: Continued

<i>Country level controlling factors</i>						
Country disclosure dummy	306	0.92	0.27	0	1	Various
GDP per capita (\$000)	279	49.02	20.06	3.82	94.28	World Bank
Corruption	281	1.07	0.95	-0.86	2.24	World Bank
Rule of Law	281	1.37	0.75	-0.86	2.04	World Bank
Steps	261	7.15	4.06	2	20	DLLS, 2002, QJE
Anti-director index	234	4.09	1.21	1	5	LLS, 2002, JF
Trust	259	0.34	0.12	0.07	0.57	World Value Surveys
<i>Country level cultural factors</i>						
Power distance	270	51.15	19.58	11	104	Geert-hofstede
Individualism	270	60.57	28.79	11	91	Geert-hofstede
Masculinity	270	54.67	15.90	5	95	Geert-hofstede
Uncertainty Avoidance	270	47.36	24.08	8	95	Geert-hofstede
Long term orientation	271	56.19	22.20	13.10	100	Geert-hofstede
Indulgence	270	52.74	19.45	14.29	83.04	Geert-hofstede
<i>Cryptocurrency Controlling Factors</i>						
Media coverage	303	3.499207	1.235837	-0.69315	4.340553	Google Trend

Table 4: Comparison between Subsamples

Variable	Non-CSR cared (obs.= 269)		CSR cared (obs.= 37)		Mean diff.
	Mean	S.D.	Mean	S.D.	
<i>Project characteristics</i>					
Amount raised (\$000000)	20.18	21.79	21.02	20.66	0.84
Token return	9.18	40.54	5.97	17.29	-3.21
Duration (in days)	24.13	28.07	28.35	23.55	4.22
Year: 2018 (dummy)	0.26	0.44	0.32	0.47	0.06
Followers ('000)	26.59	22.06	30.63	42.85	4.04
Tweets ('000)	1.07	3.03	0.91	2.85	-0.16
Twitter age (in months)	11.83	18.19	8.70	10.15	-3.13
Photos/Videos	186.74	231.50	221.27	214.20	34.53
Networking links	5.57	2.54	6.38	2.72	0.81
<i>White paper quality</i>					
Risk Factor (dummy)	0.36	0.48	0.33	0.48	-0.03
Allocation plan of funds (dummy)	0.51	0.50	0.46	0.51	-0.05
Team members (dummy)	0.57	0.50	0.69	0.47	0.12
text length (in pages)	30.60	18.40	39	23.07	8.40
<i>Micro-conditions</i>					
Country disclosure dummy	0.91	0.28	0.97	0.16	0.06
GDP per capita (\$000)	48.40	19.82	53.21	21.48	4.81
Corruption	1.07	0.95	1.11	0.94	0.04
Rule of Law	1.35	0.76	1.50	0.60	0.15
Steps	7.19	4.17	6.92	3.35	-0.27
Anti-director index	4.11	1.21	3.94	3.52	-0.17
Trust	0.34	0.12	0.34	0.12	0
<i>Country level cultural factors</i>					
Power distance	50.80	19.37	53.39	21.04	2.59
Individualism	61.52	28.47	54.44	30.51	-7.08
Masculinity	54.65	16.15	54.81	14.41	0.16
Uncertainty Avoidance	47.95	24.03	43.50	24.42	-4.45
Long-term orientation	56.54	22.43	53.90	20.76	-2.64
Indulgence	52.58	19.61	53.78	18.60	1.20

*

**

Table 5: Characteristics of Socially Responsible ICOs

Standard deviations are estimated robust to heteroscedasticity, and t statistics are in parentheses. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	LnFollowers	Networking	Photos	Pages	Funds_allocation	Team_member	Risk_factor
CSR_indicator	-0.131 (-0.47)	0.712 (1.35)	39.780 (0.95)	5.550 (1.40)	-0.132 (-1.30)	0.109 (1.14)	-0.002 (-0.02)
Twitter_age	-0.005 (0.84)	0.004 (-0.40)	3.455** (2.30)				
Rule_of_law	-0.173 (-0.46)	0.066 (0.09)	-56.640 (-0.63)	-4.160 (-0.62)	0.351** (2.11)	0.098 (0.70)	-0.070 (-0.41)
Anti-director	-0.031 (-0.24)	-0.037 (-0.18)	-35.480 (-1.18)	-2.527 (-1.11)	0.002 (0.04)	-0.026 (-0.56)	-0.039 (-0.74)
LnSteps	-0.154 (-0.56)	0.307 (0.45)	-66.460 (-0.68)	5.053 (0.71)	0.058 (0.41)	0.077 (0.61)	-0.033 (-0.25)
Corruption	-0.146 (-1.16)	-0.294 (-1.10)	7.019 (0.27)	4.002* (1.86)	-0.040 (-0.68)	-0.002 (-0.05)	0.026 (0.46)
Trust	-0.486 (-0.40)	-0.102 (-0.05)	26.590 (0.11)	-0.220 (-0.01)	-0.961** (-2.13)	-0.390 (-0.86)	-0.181 (-0.36)
GDP_per_capita	0.012 (1.56)	-0.004 (-0.24)	0.624 (0.50)	0.013 (0.11)	-0.003 (-0.98)	-0.0001 (-0.03)	0.00006 (0.02)
Media_coverage	-0.092 (-1.01)	0.014 (0.08)	-27.260 (-1.31)	3.211*** (3.70)	0.022 (0.64)	0.059* (1.80)	0.016 (0.50)
In_2018	-0.306* (-1.72)	0.890** (2.13)	-35.510 (-1.31)	6.077** (2.10)	0.119 (1.43)	0.176** (2.30)	0.082 (0.98)
Constant	10.440*** (8.22)	5.503** (2.27)	550.700 (1.36)	20.500 (0.74)	0.316 (0.53)	0.315 (0.60)	0.622 (1.14)
Adj. R-square	0.047	0.062	0.123	0.144	0.056	0.086	0.017
Observations	216	216	216	203	199	200	200

Table 6: Determinants of Socially Responsible Campaigns

Standard deviations are estimated robust to heteroscedasticity, and t statistics are in parentheses. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

Dependent Variable:	CSR_Indicator (dummy)			
	(1)	(2)	(3)	(4)
Power_distance	-0.0035 (-1.51)	-0.0035 (-1.52)	0.0011 (0.18)	0.0036 (0.73)
Individualism	-0.0059*** (-2.96)	-0.0061*** (-2.92)	-0.0053 (-1.16)	-0.010** (-2.16)
Masculinity	0.0004 (0.34)	0.0004 (0.35)	0.0030* (1.90)	0.0059*** (2.64)
Uncertainty_avoidance	0.0008 (0.74)	0.0008 (0.68)	-0.0005 (-0.31)	-0.0043* (-1.71)
Longterm_orientation	-0.0036** (-2.32)	-0.0036** (-2.32)	-0.0064 (-1.50)	-0.0124** (-2.54)
Indulgence	0.0016 (0.75)	0.0018 (0.80)	0.0032 (0.87)	0.0073** (2.52)
GDP_per_capita		-0.0004 (-0.24)		-0.0123** (-2.53)
Media coverage		-0.0036 (-0.18)		-0.0222 (-0.89)
In_2018		0.0362 (0.69)		0.0177 (0.30)
Rule_of_law			-0.0302 (-0.29)	0.4080** (2.34)
Anti-director			-0.0527 (-1.10)	-0.0759 (-1.46)
LnSteps			0.0226 (0.15)	0.2130 (1.34)
Corruption			0.00639 (0.14)	-0.0127 (-0.28)
Trust			0.2420 (0.82)	-0.1050 (-0.41)
Constant	0.7370** (2.43)	0.7580** (2.39)	0.5590 (0.87)	0.7900 (1.25)
Adj. R-square	0.0450	0.0480	0.0470	0.0700
Observations	266	263	217	214

Table 7: Success of Society Cared ICOs

Standard deviations are estimated robust to heteroscedasticity, and t statistics are in parentheses. ***, **, * denote significance levels at 1%, 5% and 10% respectively. The column (4) shows the regression result of sub-sample ICOs that the CSR_indicator = 0.

	Dependent Variable: Ln (Total Amount of Funds Raised in ICO in US Dollars)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
CSR_indicator	-0.197 (-0.98)	-0.326 (-1.34)	-0.247 (-1.04)		-1.037 (-0.52)	0.328 (0.67)	0.285 (1.02)
(CSR_indicator=0) *LnFollowers					0.235** (2.33)		
(CSR_indicator=1) *LnFollowers					0.317 (1.65)		
(CSR_indicator=0)*Pages						0.019*** (3.42)	
(CSR_indicator=1)*Pages						0.002 (0.21)	
(CSR_indicator=0)*Photos							0.0002 (0.36)
(CSR_indicator=1)*Photos							-0.003*** (-2.89)
LnFollowers	0.322*** (4.23)	0.254*** (2.80)	0.247*** (2.66)	0.193* (1.82)		0.255*** (2.73)	0.264*** (2.81)
lnTweets	-0.059 (-0.81)	-0.010 (-0.11)	0.007 (0.08)	-0.020 (-0.16)	-0.001 (-0.01)	0.003 (0.03)	-0.0004 (-0.00)
Twitter_age	0.007* (1.95)	0.007 (1.64)	0.008* (1.72)	0.009* (1.80)	0.008* (1.72)	0.008* (1.77)	0.009* (1.85)
Photos	0.0005 (1.04)	0.0002 (0.43)	0 (-0.07)	0.0002 (0.34)	0 (-0.04)	0 (-0.05)	
Pages	0.012*** (3.30)	0.017*** (3.66)	0.016*** (3.26)	0.020*** (3.46)	0.016*** (3.24)		0.017*** (3.42)

Table 7: Continued

Risk_factor	-0.329** (-2.15)	-0.508*** (-2.69)	-0.501** (-2.55)	-0.526** (-2.49)	-0.502** (-2.55)	-0.537*** (-2.67)	-0.485** (-2.49)
Team_member	0.165 (0.98)	0.158 (0.77)	0.157 (0.74)	0.282 (1.27)	0.150 (0.70)	0.153 (0.72)	0.147 (0.69)
Funds_allocation	0.151 (0.96)	0.117 (0.61)	0.142 (0.72)	-0.023 (-0.11)	0.147 (0.73)	0.156 (0.79)	0.158 (0.80)
ICO_duration	-0.006 (-1.37)	-0.005 (-1.29)	-0.005 (-1.64)	-0.005 (-1.52)	-0.005 (-1.65)	-0.006* (-1.74)	-0.005 (-1.61)
In_2018	0.551*** (4.03)	0.409** (2.52)	0.413** (2.47)	0.285 (1.59)	0.406** (2.40)	0.389** (2.34)	0.397** (2.39)
Media coverage	0.493*** (5.25)	0.448*** (3.95)	0.444*** (3.81)	0.386*** (3.09)	0.442*** (3.77)	0.443*** (3.80)	0.436*** (3.75)
Cultural control	No	No	Yes	Yes	Yes	Yes	Yes
Legal control	No	Yes	Yes	Yes	Yes	Yes	Yes
Economic control	No	Yes	Yes	Yes	Yes	Yes	Yes
Constant	11.190*** (13.20)	13.910*** (7.45)	9.471*** (3.72)	12.420*** (3.91)	9.722*** (3.58)	9.859*** (3.87)	9.356*** (3.62)
Adj. R-square	0.364	0.386	0.399	0.372	0.400	0.404	0.411
Observations	266	192	190	165	190	190	190

Table 8: Success of Society Cared ICOs (replace country level controls with country_disclosure dummy)

	Dependent Variable: Ln (Total Amount of Funds Raised in ICO in US Dollars)				
	(1)	(2)	(3)	(4)	(5)
CSR_indicator	-0.234 (-1.17)		-1.114 (-0.66)	-0.116 (-0.27)	0.276 (1.19)
LnFollowers	0.293*** (3.85)	0.270*** (3.36)		0.294*** (3.88)	0.304*** (3.97)
LnTweets	-0.049 (-0.70)	-0.065 (-0.83)	-0.054 (-0.74)	-0.051 (-0.72)	-0.054 (-0.74)
Twitter_age	0.006* (1.81)	0.007* (1.93)	0.006* (1.81)	0.006* (1.82)	0.007** (1.99)
Photos	0.0004 (0.98)	0.0006 (1.38)	0.0004 (0.98)	0.0004 (0.98)	
Pages	0.012*** (3.62)	0.013*** (3.32)	0.012*** (3.59)		0.012*** (3.67)
Risk_factor	-0.323** (-2.11)	-0.279* (-1.69)	-0.323** (-2.10)	-0.323** (-2.11)	-0.315** (-2.07)
Team_member	0.121 (0.73)	0.175 (1.02)	0.117 (0.70)	0.120 (0.72)	0.115 (0.69)
Funds_allocation	0.086 (0.55)	0.027 (0.16)	0.089 (0.57)	0.088 (0.56)	0.099 (0.63)
ICO_duration	-0.006 (-1.43)	-0.006 (-1.28)	-0.006 (-1.43)	-0.006 (-1.42)	-0.006 (-1.45)
In_2018	0.549*** (4.03)	0.489*** (3.35)	0.546*** (4.00)	0.550*** (4.02)	0.531*** (3.94)
Media_coverage	0.468*** (5.15)	0.445*** (4.70)	0.465*** (5.10)	0.468*** (5.13)	0.468*** (5.14)
Country_disclosure	0.821*** (2.69)	0.861*** (2.66)	0.830*** (2.73)	0.820*** (2.68)	0.778** (2.51)
(CSR_indicator=0) *LnFollowers			0.283*** (3.58)		
(CSR_indicator=1) *LnFollowers			0.375** (2.22)		
(CSR_indicator=0)* Pages				0.013*** (3.39)	
(CSR_indicator=1)* Pages				0.009 (1.32)	
(CSR_indicator=0)* Photos					0.0006 (1.36)
(CSR_indicator=1)* Photos					-0.0019** (-2.42)
Constant	10.820*** (12.79)	11.110*** (11.90)	10.950*** (11.89)	10.800*** (12.79)	10.730*** (12.42)
Adj. R-square	0.386	0.368	0.387	0.386	0.394
Observations	266	234	266	266	266