Whitepaper Visualization and ICO Success

Major Research Paper

Sen Lin
217782822

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Songlan (Stella) Peng

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1. Abstract

Research problem/question: Is the visualization of ICO whitepaper associated with ICO success?
Objective: The purpose of the paper is to find out how the visualization of the whitepaper affects the ICO and what key information is more important to be presented visually. The definition of visualization in this study is Pictures, *Tables*, Charts, Font Size and Color, etc.
Hypothesis Development: The first hypothesis is the visualization of the whitepaper does not affect the amount of capital raised. The second hypothesis is the effect in H1 is not affected by the use of media advertising.
Design/methodology/approach: This study uses a multiple regression model to test the hypothesis and thus observe which independent visual variables in the whitepaper impact the ICO funds raised.
Findings: First, when the number of media resources is 0 or 1, the ICO success is positively correlated with Pictures, Tables, changing the font color, the upper limit of the Amount Raised, and negatively associated with Font Size. Second, when the number of media resources exceeds 1, the ICO success is not related to the visualization degree of the whitepaper, but it is still positively associated with the setting of the upper limit of Amount Raised. Third, the current popular whitepaper style is to visualize essential information.
Sample: This study extracts 165 whitepapers from ICObench available for download during 2019-2020. There are 141 whitepapers in 2019 and 24 in 2020.
Contribution: The paper results provide insight on whether the visualization of whitepapers matter for investors, and if yes, what are these visualization characteristics. The findings of the paper may help the content of the ICO whitepaper to be more standardized, professional, and visualized. It may also help improve comparability and competitiveness among different ICO projects, thus promoting issuers' disclosure quality of internal information, facilitating investors' decision-making, and reducing market risk.

2. Introduction

2.1 Background

The first Initial Coin Offering (ICO) took place in June 2013 when Mastercoin (MSC) launched their ICO in the market. Since then, the ICO has been an emerging topic in academic research. The ICO uses blockchain technology combined with virtual cryptocurrencies such as Bitcoin and Ethereum to raise funding for projects in the form of crowdfunding. Crowdfunding is the use of small amounts of capital from a large number of individuals to finance a new business venture. Its transaction process is all realized by trading cryptocurrencies. ICO is also a type of venture capital derived from the crowdfunding model.

In addition, in contrast to traditional financing methods, ICOs bring unique benefits to startup projects that are attractive to both ICO issuers and buyers. First, ICOs are fast and raise large amounts of money. Second, there are no hassles associated with equity transfers, as there is no need to change the equity structure. Third, the liquidity is fast. ICO projects can be completed from investment to exit in as soon as 3-5 weeks. ICOs are gradually becoming a more straightforward, innovative tool for financing solutions. ICO issuers can be non-listed companies and are not required to list and trade on a stock exchange subject to SEC's review and approval, and most tokens are listed on centralized cryptocurrency exchanges. The ICO model is decentralized, disintermediated, and unregulated, so the issuers' disclosures in a whitepaper are voluntary rather than mandatory. Moreover, the disclosures contained in the whitepaper do not have a uniform standard or format, which further generates information asymmetry between issuers and investors. Due to the lack of effective regulation, many negative phenomena have arisen, and hence both practitioners and researchers are keen to know what factors are helpful in differentiating high quality ICOs from low-quality ICOs.

Blockchain technology can not only be decentralized but also be widely applied to multiple industries, which is the reason why the issuers of ICOs come from different industries and countries. As the ICO market is getting hotter and hotter, some rating companies and intermediaries are gradually starting to provide services that reduce the information asymmetry of ICOs. Moreover, sholars have published many academic papers about the ICO market, containing some essential facts about what should be included in a high-quality whitepaper. The main entrance points for academics studying ICOs is the whitepaper because they are publicly available in the ICO market. Moreover, many studies have proved that whitepaper quality is associated with rating scores, fund-raised amount, and post-IPO performance. For example, Feng, Wong and Zhang (2019) used this approach in their research design. They rated ICO projects and then tested the association with post-IPO performance within 180 *Days* of the ICO end date and used this to explore the findings. Following these studies, I will focus on examining whitepapers in my research to explore the uncharted field.

2.2 Current problems of whitepapers

The role of the whitepaper is the same as the role of the IPO prospectus. The purpose is to provide information regarding the ICO project and the issuer, which is the most important document for investors to evaluate the ICO risk. It is important because the public cannot easily find other information about the issuer in the public market. The whitepaper in the ICO market does not have a uniform standard, and its quality varies.

The problems are mainly reflected in two aspects. The first issue is the readability. Most of the recent whitepapers are mainly in the form of text narratives with long paragraphs and even little numerical information. However, many readers are unwilling to read such perceived “boring” content and may lose interest and give up their willingness to invest. Hence the lack of readability of a whitepaper may directly influence investors' decisions.

The second issue is transparency. The transparency issue is shown when issuers do not fully disclose relevant information in their whitepapers. Typically, the whitepaper rarely contains the issuer's financial information, capital structure, equity structure, and other governance information. As a result, issuers are very secretive in the eyes of investors. Thus, it is also challenging to build trust. The lack of transparency in whitepapers is the leading cause of the information asymmetry phenomenon. Thus, investors will continue to expand on the available information in the whitepaper to learn more about the ICO project. Further, issuers may selectively disclose favorable information and shield the unfavorable information from them. Therefore, the current whitepaper is limited in its usefulness for decision making, and investors facing insufficient information need to invest time and money in costly analyses. It is challenging to create an effective ICO market, and the quality of disclosure is a critical factor in helping to improve effectiveness.

2.3 Research problems

This study focuses on the impact of the visualization of whitepapers on the market and investors. The objective is to find out whether the visualization of the whitepaper impacts the ICO's success rate, and what key information is more important to be presented visually. The definition of visualization in this study is Pictures, Tables, Charts, Font Size and Color, etc. Because a compelling visual display is typically more likely to attract the attention of investors and positively predispose them to invest, thus, the specific research question in this study is whether the visualization of ICO whitepaper is associated with ICO success, and if yes, what these characteristics are.

The rationale for studying the degree of visualization is that first, the whitepaper contains relatively little financial data about the issuer and a large proportion of literal content. For example, Tsui and Li (2021) explored the relationship between the readability of IPO prospectuses and IPO underpricing using the Gradient Boost Decision Tree approach, and it was found that the readability scores of the chapters in the prospectus were related to the price of the IPO. And it is most evident in the chapters of Plans and use of proceeds, financial information and Underwriting. The Gradient Boost Decision Tree approach is also a visual demonstration tool, and the whitepaper also contains information on the above three items. When the visualization of this crucial information is low, investors may be more likely to ignore some information, resulting in biased investor behavior, which can lead to market failure in serious cases.

Second, the investors' cognitive level in the professional and technical fields is low, and it may be difficult for them to understand the information shown by the issuer if they read only the text on the whitepaper. Third, too much text and paragraphs in a whitepaper may reduce the comparability with other ICO project information. If investors intend to invest in multiple ICO projects, they have to spend much time extracting valuable and comparable information from large text files and are prone to errors.

3. Overview of theoretical background

3.1 Signaling theory

In the ICO market, issuers are the information suppliers, and investors are the demanders of information. Investors need to collect as much as possible information to reduce their investment risk on ICO projects. However, collecting information about the issuer in the ICO public market is challenging. Therefore, issuers voluntarily disclose whitepapers as a notification signal. A high-quality whitepaper presents information about future operating forecasts, plans for the use of proceeds, and a timeline for overall project operations. It helps demonstrate the issuer's confidence in its future and signal to investors that the ICO project is safe, stable, and under control. When rational investors perceive the whitepaper to be low in readability, disclose less relevant information, and estimate risks to be high, they may abandon their investment, and hence the success rate of ICO offering may be affected. High-quality Issuers will actively differentiate themselves from low-quality issuers to prove that their offering is at a better quality. As a result, Yen, Wang and Chen (2021) found that disclose unique or more detailed information because higher quality information may generate more benefits.

Issuers' willingness to signal does not necessarily generate desirable outcomes if all the information in a whitepaper is presented in words. Editing the whitepaper in a glossy visual way may help issuer signal to the public what material information is in the whitepaper. The more detailed and readable the information disclosed in the whitepaper, the more prominent the key information will be and the easier it will be to persuade potential investors so that this signal will be more pronounced. For example, Shette and Kuntluru (2018) found that in the IPO market, the readability of the prospectus can directly affect short-term earnings performance and long-term earnings surprise. Either the short- or long-term performance of the stock is directly associated with the interests of investors. The same holds for whitepapers, where the more detailed and readable their disclosures are, the more salient the core messages will be, and the easier it will be to convince potential investors of this signal. As a result, it could reduce the cost of analysis and estimated risk for investors and contributes to the ICO market's liquidity, thus making it easier for investors to achieve a stable rate of return.

3.2 Single-person decision theory

According to single-person decision theory, the quality of information disclosed in a whitepaper is considered to be high or low depending on whether the information disclosed is highly relevant to the expected value of the ICO project. A highly visualized whitepaper can be considered newly generated information. In that case, Scott and O'Brien (2019) showed that the posterior probabilities are more predictive of future issuer performance than the prior probabilities, then it can be deemed that the highly visualized whitepaper can affect investors' decisions. Then it can be defined as new valuable information. If the information can influence investors' decisions, it is valuable information. Since the information is voluntarily disclosed, issuers usually show their positive information in a highlight visualization and hide their negative information or disclose it in literal terms. The visual editing method will further enhance this effect. This selective disclosure creates an adverse selection. Issuers want investors to focus only on their strengths to be more likely to get the funding they need for ICO projects.

3.3 Investor behavioral biases

Like the IPO market, the ICO market should result in the same risk assessment for a rational investor, whether the whitepaper is highly visualized or not. However, some investors may have behavioural biases, especially those with limited attention spans. For these individuals, visualization may indeed help them. Liu, Lu, Sherman and Zhang (2020) find that the initial returns and prices of IPOs are higher when investors' attention to issue-related information is greater. For example, a whitepaper with too much text and low readability may cause investors to miss much of the critical information, affecting investment decisions. In this case, despite all the information disclosed, the investor still ignores them.

This phenomenon can result in two outcomes. One is that it can lead investors to make wrong investments, leading to huge losses. The other possibility is that investors define the ICO project as a low-quality project and thus abandon their investment, leading to the failure of that ICO offering. However, either way, it can prove that the investors' perception system did not receive the correct effect of the whitepaper content, and instead, there was passive neglect. In addition, another small probability phenomenon is that investors are subjectively unwilling to process the information in the whitepaper. Therefore, visible and outstanding disclosures may stimulate the sensory awareness of investors and thus attract their attention to reduce this behavioural bias.

As the standards for the content of whitepapers in the ICO marketplace continue to improve, like the IPO market, investors may become overconfident and underestimate the information in the whitepaper, leading to an overestimation of the value of the ICO. Therefore, a highly visual whitepaper can make the content more vivid and thus reduce the probability of investors overlooking the information. For limited-attention investors, a visual disclosure approach will to some extent, serve the utility of better-transferring information to investors. Because it can reduce investor behaviour bias and adverse selection, thus sending a safer signal to the ICO market.

A highly visual whitepaper helps investors find key information quickly and makes it easier for them to understand what the issuer is presenting. Moreover, similar ICO projects significantly improve comparability with each other. When there are more and more highly visualized whitepapers in the ICO market, potential investors can quickly filter out low-quality ICO projects, thus improving market efficiency and achieving a virtuous cycle. Therefore, the more key information is visually disclosed in the whitepaper, the more likely less adverse selection and more beneficial to investors' decision making.

3.4 Information asymmetry

From the perspective of the ICO market-wide, if the readability of the whitepaper is low, the public may wrongly believe that there is a high degree of non-transparency in the information disclosed by the issuer. It further leads to the fact that an otherwise high-quality ICO project may fail to issue, while the probability of a successful issue of an inferior ICO project is increasing. It creates the phenomenon of adverse selection under information asymmetry. For example, Schrand and Verrecchia (2005) found that in an efficient securities market, adverse selection can lead to under-pricing on the day of the IPO, which can severely reduce the size of the issuer's financing. However, full disclosure is a tool to mitigate adverse selection.

ICO projects of inferior quality may take advantage of the unregulated ICO market to engage in fraudulent behaviour. For example, if they raise funds after taking advantage of the adverse selection phenomenon and then do not comply with the ethical standards of the plan to use the raised funding, this can expose investors to huge losses. As a result, investors are wary of trading activities in the ICO market because it is challenging for them to judge the honesty of the content in the whitepaper.

A highly readable whitepaper helps investors quickly identify if the issuer has disclosed high-quality information and compare it with other similar ICO projects through its high comparability. As a result, it is possible to infer what information is missing from the whitepaper. In other words, a highly visualized whitepaper can indirectly mitigate the adverse selection phenomenon. When investors find out that the issuer is hiding important information, they will abandon the project. Therefore, as the ICO market becomes more visualized, it will force issuers to disclose more internal core information.

The definition of visualization is broad and does not mean only *Tables* or graphics, etc. Any way that distinguishes important information allows people's perceptual system to recognize it quickly and improves readability, and all belong to visualization. The above four theoretical explanations can summarize a set of methods to select quality ICO projects. To select quality ICO projects, investors may follow some screening procedures such as filtering out the whitepapers with high readability and using the comparability provided by highly visualized information to eliminate further the reports that may have selective disclosure. Such procedures would help investors to save analysis costs and reduces evaluation risks. Thus, as long as a positive correlation between the visualization level and ICO success rate can be demonstrated, it can be shown to influence the decision to invest.

4. Literature review

4.1 Whitepaper quality and valuation

The ICO market has been growing since the first token-sale was held by Mastercoin in July 2013. To date, a total of 5,728 ICOs have been issued across 25 Industries worldwide, raising more than $27B (ICOBench.com). Moreover, ICO raise funds fast, and the cost of raising funds is low. Along with the growth of the ICO market, academic research on ICOs is also growing. However, the weaknesses of ICOs are also very prominent. Its innovative model is highly novel, leading to the current lack of regulation, which results in widespread information asymmetry, making the price of ICOs extremely volatile and exposing investors to significant evaluation risks. Momtaz (2018) found that the primary manifestation of this is the tendency of large ICOs to be overvalued and underperform in the long term. In order to reduce adverse selection, platforms and rating websites available for public offerings of ICOs have been created in ICO Market. Rating websites base their ratings on whitepapers and publicly available media information from issuers. However, these websites do not investigate issuers, and thus the rating quality is usually low, and reliability is doubtful. Therefore, investors have to pay extra attention to the quality of the content of the whitepaper.

4.1.1 Whitepaper disclosure details

Recent Feng et al. (2019) have found that the quality of the content of a whitepaper is directly related to the ICO success and that low-quality whitepapers are bound to have low-rating scores. More recently, Dean, Daluwathumullagamage and Marsden (2020) found that the actual amount of funds raised and post-IPO performance of an ICO are positively associated with the quality of the whitepaper. Therefore, improving the whitepaper quality is a key aspect of a successful ICO offering. Ofir and Sadeh (2020) studied whitepapers in-depth, they had found that whitepapers should focus on disclosing ICO project technology, token sale information, the ability to create tokens, and why blockchain technology is needed. It means that the disclosure level of this information affects the rating results and future listing performance of ICOs.

Feng et al. (2019)'s research showed that potential investors need to understand the actual usage of funds and the repayment ability of the issuer. The underlying reason why investors pay so much attention to these details is twofold. One is because the whitepaper is the only analytical information they have. The other is that the information will help them evaluate the investment risk. A high-quality whitepaper is a significant investment for issuers. In order to gather the information, they not only need to enhance the level of daily operational management but also hire expert professionals to organize detailed information and design the whitepaper style.

This research extends previous studies by investigating if key information to investors is presented in a highlight visualization, it can enhance signaling and make it easier for investors to save on analysis costs, thus facilitating individual decision-making. Dare to signal high-quality reporting are bound to have higher credibility.

4.1.2 The volatility of ICO's value

The liquidity of ICOs, the factors such as market capitalization, and high to low price ratios are related to the difference in initial returns on the first trading day. However, Momtaz (2018) found that 40% of ICOs are overpriced. The main reason for this phenomenon is that the market and investors have overestimated the issuer of ICO. There are several possibilities. First, the issuer has not disclosed accurate inside information. Second, the whitepaper is overly whitewashed and misleads investors. Third, investors ignore essential information due to the poor readability of the whitepaper. The focus of this study is to verify whether the visibility of the whitepaper can mitigate the harmful effects as identified above. If a highly visible whitepaper can get a higher rating, then the report is validated as a high-quality report and the gap between the market capitalization of digital coins or tokens and the expected price may narrow.

The above phenomenon may be because ICO fundraising projects are still in an early stage, so there are no data or financial metrics directly related to the project for investors to rate. In other words, in such a large market, investors may mainly rely on the information provided by the ICO issuer in the whitepaper to make decisions. The significant difference between a whitepaper and a prospectus in terms of content structure is that a whitepaper depicts the future, and the prospectus summarizes the history. That means reliable financial report data do not support the whitepaper, so investors can only judge the reliability and stability of the ICO by introducing the blockchain technology design of the ICO project, the R&D team, and how they plan to use the fund raised and the product. Therefore, the quality of the whitepaper has an essential relationship with the performance of the ICO process. However, if investors cannot accurately evaluate these details or discover this information, it will inevitably lead to over-or underpricing of ICOs. To reduce this volatility, visualization for this information may mitigate this phenomenon. While previous studies prove that the ICO contents are related to the efficiency of ICO fundraising, there is no mention of whether the level of visualization of the whitepaper is associated with ICO success. Therefore, this paper will attempt to provide some insight in this regard.

4.2 Whitepaper quality and Rating Score

Feng et al. (2019) and Bourveau, De George, Ellahie and Macciocchi (2021) found that if a company produces a whitepaper with a high level of disclosure within the ICO market, it may receive a higher rating, and may also have a more extraordinary ability to raise funds. Further, this association is strengthened if the company can demonstrate that it has excellent and credible credentials and has been vetted by external intermediaries. However, since no regulatory mechanism exists, many low-quality ICO projects bring the noise to that market. Especially many ICO projects come from different countries or markets, and there is even cross-listing, so the cost for investors to filter information is very high. Therefore, properly briefing investors on analyzing whitepapers is currently a relatively effective way to reduce the valuation risk. Moreover, some evidence shows inconsistencies between data sources in different ICO markets. It further validates that while the rating results represent the ICO's quality, it is not entirely credible. Ofir et al. (2020) found that most rating websites also do not appreciate the technical application of ICO projects, appraisers also lack basic knowledge of this innovative industry. Due to the lack of transparency in the evaluation process, investors still need to rely on improving their level of awareness to reduce risk.

Although some studies have examined the ICO content from different perspectives, they did not provide a clear answer as to what style of whitepapers would. Hence this study attempts to see if visualization plays a role in ICO success. The ICO model has been used in multiple industries, but investors cannot understand all industries and recognize all the key information in a whitepaper. The use of visual graphics or *Tables* may better explain blockchain technology and some innovative concepts to the public and can impress investors. Therefore, this study hopes to demonstrate whether visualization of ICOs can evoke investors' attention and thus reduce the phenomenon of behavioral bias. It has a positive and positive effect on enhancing public interest. The study defines the ICO success as the fund raised by the issuer, which is a relative ratio calculated as the actual ICO funds raised to the planned funds raised means. The higher the ratio, the more successful the ICO is.

4.3 Whitepaper characteristics

The whitepaper characteristics refer to the style and the method of content presentation. For example, images, fonts, and background colors are associated with investor perceptions. Meyer and Ante (2020) find that whitepapers characteristics influence people's perceived judgments about the quality of ICO projects and thus the ultimate returns. The finding suggests that people's perceptual system responds effectively to the signals conveyed by the whitepaper such as the Token for sale, Fund distribution, and *Roadmap* sections are the more sensitive information in the whitepaper. They can be used in explicit *Tables* or graphics to help potential investors quickly understand how many funds the issuer needs, how the funds will be used, and when the investor will get them back. Moreover, Lahajnar and Rožanec (2018) have developed a structured, recursive tree model of ICO project evaluation. They also find that structured whitepaper content is more straightforward for people to understand, suggesting that characteristics related to visualization may help investors' decisions. This study attempts to investigate further which of the whitepapers readable visual signals significantly impact people's perceptions. This impact can be measured as a percentage of the amount raised.

Research in the IPO market on information readability has similar findings. For example, Tsui et al. (2021) found that high readability scores in chapters in IPO prospectuses lead to higher

IPO values. Moreover, among the high-readability information are the chapters on plans and the use of proceeds is the most important sections**.**

In contrast to IPOs, ICOs do not cover financial reporting information of companies in whitepapers. Moreover, while IPOs are regulated by the SEC in the USA or CSAs in Canada and issue a standardized prospectus, whitepapers do come in various styles. In addition, investors have difficulties obtaining information from sources other than whitepapers that are useful for decision-making. Therefore, the relationship between the readability of each whitepaper's chapter and ICO valuation needs to be further verified.

5. Hypothesis Development

5.1 The Scope of this Study

Compared to IPOs, investor behavior in the ICO market may be somewhat different. For example, some fund companies or trust companies as investors may dress up the ICO project as a channel or financing platform in order to avoid the regulation of SEC on them and then invest the principal's fund in the ICO project issuer through the ICO market as a channel. Therefore, this type of ICO project does not require the participation of a broad range of individual investors, so the issuer has no incentive to produce a high-quality whitepaper. At this point, the fund or trust company becomes the intermediary service provider for the principal. This phenomenon explains why the ICO market is gradually improving, but low-quality whitepapers always exist in the market. This study cannot distinguish the identity of investors, so it is also impossible to filter out the low-quality whitepapers caused by this phenomenon.

5.2 Signaling attributes of whitepapers

Whitepapers are the primary source of voluntary disclosure for issuers, who have an incentive to dress up as high-quality a whitepaper as possible for their financing purposes in order to raise as much money as they need. Even though the ICO market is unregulated, it is still a public market. Moreover, the ICO project is an angel or Series A funding round for most issuers, so issuers will need to do deals with a broader range of financial institutions in the future and may even apply for an IPO. Therefore, creating a perfect impression and leaving a good reputation with investors in the ICO market is essential for a high-quality issuer.

Under the signaling theory, first, Zhang, Zhang and Chen (2021) found that high-quality companies are more willing to voluntarily produce high-quality whitepapers, where positive tone and optimism are a reliable signal. The issuer believes that the future of the ICO project is optimistic and demonstrates their confidence to infect and convince the broader investors. Moreover, Zhang et al. (2021) also proved that a positive tone is more persuasive and positively contributes to the ICO's offering success. Second, Zhang et al. (2021) found that issuers more often use causal reasoning to add persuasiveness to explain past performance or frame prospects. Causal relationships are the logical structure that people usually use when explaining issues. However, these complex logical relationships are complicated for some cross-industry investors to understand if they are explained only by words and not by diagrams. Therefore, providing some illustrations or *Tables* in the whitepaper would be more straightforward and impactful than text and more appealing to investors. This visual stimulus is a signal to engage investors actively and a sign of confidence for the issuer. Finally, when this visualized core information attracts investors' attention, it will reduce the evaluation risk and cost and quickly identify high-quality ICOs to make investment decisions. Therefore, high-quality ICO projects that deliver core information to investors through highly visualized signals are more conducive to raising funds.

However, visualized text may not affect investor's decision. What matters most is the information itself, not necessarily the manner in which it is presented. Yen et al. (2021) found that high-quality ICOs tend to provide more unique or uncommon content in their whitepapers as a way to attract investment to raise more capital. A unique message means more cost to the issuer. For a project that is in its early stages to produce unique and high-quality information with limited budget conditions, it shows well that they have a high level of management and pay much attention to the investors' interests to allay their concerns as much as possible.

Accordingly, I present my first hypothesis in a null form as follows.

H1: The visualization of the whitepaper does not affect the amount of capital raised.

When the visualization variables in the whitepaper can significantly impact the number of funds raised, the issuer can get better results because specific information is processed using visual techniques. In capital markets, a general effect of emulating or following previous success models is usually observed. Because each issuer's information is publicly available, new issuers usually investigate past offerings of similar ICO projects when they initially enter the market. When they know that the whitepaper's readability is crucial and know how to improve readability, they will actively imitate it and even raise the criteria further. Then the average quality of the entire ICO market will also enhance.

5.3 The utility of media advertising

Currently, many issuers are using social media to post promos, and even communicate and interact with the public online to make themselves better known to investors. This publicity method has also significantly contributed to the success rate of issuing ICOs. According to the above hypothesis, it can be explored more deeply, which has a more significant impact on the amount raised by ICOs, the influence of advertising media, or the effect of a highly visualized whitepaper. There are three current phenomena: first, social media are the most dominant means of modern market influence, and advertising operators will push information related to ICOs to interested investors through big data mining and forecasting. This approach can enhance the exposure of the ICO project and dramatically expand the scope of publicity of the ICO project so that investors around the world can subscribe to the ICO shares. It is a new type of roadshow. Second, Czaja and Röder (2021) find that ICO promoters who promote through social media raise more funds than issuers who do not promote through social media. Thus, the visual impact of a promo is unmatched by whitepapers in any case. It can stimulate people's senses more directly and make the ICO project look less mysterious. Third, Bourveau et al. (2021) find that ICOs which communicate through social media platforms make a huge difference in the final amount of funds raised. Even if the verifiability of the disclosure is limited. In short, multimedia mode plays an essential role in the promotion process of ICO issuance. Furthermore, this study focuses on examining whether the ICO success rate will be further enhanced by the dual stimulation of the issuer using visual technology to dress up the whitepaper and the multimedia format to promote the ICO. In other words, it can be concluded from Czaja et al. (2021), Bourveau et al. (2021), Yen et al. (2021) that if visualization can help issuers raise more money, then whether or not multimedia further help to enhance this effect because there are already several scholars who have found that promoting and posting more unique messages through social media raised more funds.

However, there is another possibility that when there are too many media sources, it may decrease investor attention to the whitepaper. It means that a highly visual whitepaper will have little impact on helping investors make decisions. When media resources are scarce, rational and, professional investors will focus more on the whitepaper's content, which is when the visual information comes into play. If this combination has a significant effect, it indicates that the ICO market has entered a status of healthy competition, and it will be difficult for low-quality ICOs to get the favor of investors at this time.

Given that the role of media in the H1 effect is not determined, I present my second hypothesis in a null form.

H2: The effect in H1 is not affected by the use of media advertising.

Whether it is a visual whitepaper or a multimedia advertisement, the issuer signals that they desire to be trusted by investors. The cost of producing these materials is also high, but it is the only way to set themselves apart from lower-tier ICO projects. On the flip side, a healthy and positive market environment for ICOs will push issuers to upgrade their whitepaper quality for a successful ICO offering, or it will be eliminated.

6. Research Design

6.1 Data Sources

Current published academic studies on ICOs mainly use ICO whitepapers before 2019. During the Pandemic, the global economy was hit hard, and the industry landscape changed severely, resulting in a significant decline in ICO issuance. This study extracts information from ICOBench.com for ICOs completed between January 2019 and December 2020 and uses this as the primary data source. If ICO raised funds amounts and whitepapers are missing from ICOBench.com, this study will supplement the information from two websites, Foundico.com and icoholder.com.

Table 1, panel A outlines the sample construction process. A total of 640 ICOs were collected at ICOBench.com for this study to be completed between January 2019 and December 2020. Of these, 165 provided a downloadable whitepaper, 72 provided the number of funds raised, 44 had post-ICO transaction data, and 26 had information on all three at the same time. ICO projects that did not provide a whitepaper on a public platform were excluded.

Since this study focuses on the whitepapers of ICOs, all 165 ICO projects that provided whitepapers were used as the final analysis sample and described in five subgroups according to "Amount raised" to understand the distribution of these samples. If the Amount raised could not be found during the extensive search, the Amount was set to $0 for this study, assuming that these ICOs failed. We divided the sample into five strata: $0, more than zero but less than $1 million, $1 million at least less than $10 million, $10 million to less than $100 million, and $100 million or more. Table 1, panel B shows the number of observations drawn from each subgroup. Among them, there are 93 ICOs with no amount of raised information. Table 1, panel C shows out of 72

ICOs with an Amount Raised. 25 ICOs used more than one social Media advertising. Out of the total 165 ICOs including failed ICOs, 87 ICOs used more than one social media for advertising.

I also grouped the firms based on the number of media sources for each firm, with the purpose to test Hypothesis 2. The firms are divided into two sub-groups: firms with the number of media resources greater than 1 and firms with the number of media resources less than or equal to 1. The results of the sample grouping statistics are shown in the Table 1, Panel C.

Table 2, panels A and B report the number of ICOs by year and month. Panel A shows that 141 of these ICOs were completed in 2019 and 24 in 2020. Table 2, panel C shows 165 whitepapers from 51 countries, with Singapore, the U.S., and the U.K. having the most significant number of ICOs issued, accounting for 12.73%, 10.91%, and 7.27%. Thirteen of these ICOs in the sample do not provide information about the country, accounting for 7.88%.

6.2 Research Methodology

The study was conducted in six steps to test the hypotheses established in the above section. The first step involves identifying and defining the sample variables that will be used as the basis for the subsequent analysis of this study. A summary of all variables used in this study is provided in Appendix A.

In the second step, the six variables (*Pictures*, *Charts*, *Tables*, *Roadmap*, *TokenDis*, and *UseFunds*), which are the essential visual variables in the whitepaper of 165 ICOs, are divided into six intervals for cross-sectional analysis. Then, the distribution of "with the amount raised" and "with token trading data" was calculated. The purpose is to verify whether the magnitude of these six variables correlates with the ICOs of the amount raised and with token trading data. The results are presented in Table 3.

As the third step, I presented a comprehensive descriptive statistic of all the variables in 165 ICOs, such as Mean, SD, Min, Median, and Max. The purpose is to understand the characteristics of all variables, and also to prepare for the subsequent correlation analysis. The results are presented in Table 4, Panel A.

As the Fourth step, I performed the correlation analysis for all variables in the 165 ICOs by Pearson and Spearman methods. The purpose is to initially assess the correlation between the independent and dependent variables, whether this correlation is significant and can be reasonably interpreted and prepare for the subsequent regression analysis. The results are presented in Table 4, Panel B.

In the fifth step, I performed the multivariate Ordinary Least Squares regression (OLS) analysis to test hypothesis 1, to observe which independent visual variables in the whitepaper would affect the funds raised by the ICO. And define the regression model. The regression model (Model 1) is depicted below, and the results are presented in Table 5.

Regression Model:

$$\text{ICOs Success Rate/ICO Amount} = a0 + \beta 1 \times \text{Whitepaper Visualization Variables} + \beta 2 \times \text{Control Variables} + \varepsilon$$

As the sixth step, after generating the results from step 5, I partition the sample by number of media used for advertising and redo the model 1. The results are presented in Table 6.

6.2.1 Variable Definition

The ICO's successful issuance is based on a sample of 165 from 2019 to 2020. The variables were obtained from the whitepapers, ICOBench.com, and CoinMarketCap.com. Appendix A is a definition table of the independent and dependent variables in the study design. There are two dependent variables included in the study. The first one is *Logamount*. It is a logarithmic form of *AmountRaised* and indicates the amount of funds the ICO has raised. The second one is *SuccessRate.* It is defined as the ratio of actually raised funds to the planned amount of funds. The success rate value rate ranges from 0 to 100%, obtained from ICOBench.com. The higher the ratio of raised funds to the planned amount of funds, the higher the success rate.

This study collects data from the 165 ICOs' whitepapers. First, the independent variables were designed from three perspectives: whitepaper characteristics, media sources, and control variables. Whitepaper characteristics measure the frequency of *Pictures*, *Charts*, *Tables*, and Sensory information, such as font color, theme color and font size. Second, the number of media resources is used to measure whether the issuer is active in providing information regarding the media platform. Because media is a highly visual representation, it can be more attractive to investors than a whitepaper, thus offsetting the signaling effect of a highly visual whitepaper. Finally, information related to token solicitations is used as control variables, which record the issuer's token solicitation plan and actual solicitation results. It includes *Days, TeamSize, AdviSize, MinInvest*, *AccepCurrencies*, *HardCap, SoftCap,* and *ICO-Listed* from ICOBench .com.

The independent variables defined above were tested for association with the dependent variable by category in independent and mixed-mode, and indicators with significant impact or statistical significance were explained in detail in the analysis phase of the study.

7. Empirical Analysis

7.1 Whitepaper visualization variables

Table 3 reports statistics on two factors regarding the degree of content visualization in a whitepaper. Furthermore, to distinguish the core information in the whitepaper, the study analyzed the number of *Pictures, Charts,* and *Tables* in Table 3, Panel A. The reason for adopting this analysis strategy is that the same information can be visualized in different ways. For example, some issuers present information regarding UseFunds in the form of Tables, but others use Graphs or Charts. Panel A divides the total values of variables into six subgroups, starting from 0 and adding 10 for each group (i.e. 0-10, 10-20, 20-30, etc.). For example, the "1-10" group has the most significant number of samples, 43 ICOs. The average amount raised in this subgroup is 25.5 million, and the average amount raised rate is 42%. In addition, the token listing rate for "1-10" is 40%. The same is true for the other subgroups. However, the average amount raised rate of the 7 ICOs with 0 is 57%, and the token listing and trading rate is 57%, which are the highest values.

This study also presents segmented statistics for another three critical variables *Roadmap, TokenDis,* and *UseFunds* in Table 3, Panel B., with the purpose to group the variables according to their categories, and hence to observe their impact on the ICO success rate individually. In Panel B, the three variables have 4 Visualization Utility information with 0-3. Among the 165 samples, there are 84 ICOs that provide three types of visual information, namely Roadmap, token allocation, and use of funds raised, 34 ICOs that provide two types of information, and 18 ICOs that give a kind of and 29 ICOs that provide no information. Also, it shows that 29 ICOs with 0 raised funds, with an amount raised rate of 52% and an average of 77.6 million. The average amount raised in this subgroup is 40.2 million. In addition, the token listing rate for this group is 66%. All of these metrics are the highest values in Panel B. In addition, the three indicator variables *Roadmap, TokenDis, and UseFunds* are core information for investors, and they will directly affect their evaluation and decision-making.

In summary, the univariate statistics summarized in Table 3 show that not only do ICOs projects with high *Visualization Utility information* in whitepapers not raise more money than projects with low visualization of whitepapers, but also the ICO success rate and token listing rate are lower than those with low visualization of whitepapers. In addition, the success rate and token listing rate of ICOs in the subgroup with high Visualization Information in the whitepaper are also not superior to those in the subgroup with low visualization.

7.2 Descriptive statistics

Table 4, panel A presents the summary statistics of the dependent and explanatory variables in the multivariate analysis in this study, with a total of 21 variables. The first three are related to the dependent variables, and the rest are independent variables with descriptive properties, including sample size, maximum, minimum, mean, median, and standard deviation.

Of the three dependent variables, the maximum value of *AmoutRaised* is $100,000,000, and the average value is $8,621,910. To further explore the distribution of *AmoutRaised*, the analysis of its outlier is presented in Table 4, Panel A. The chart clearly shows that $100,000,000 is an outlier. However, in the background of this study, each ICO project is independent and has a different project capital size. Hence, the amount of capital they need to raise is necessarily different. Moreover, this study focuses on the impact of the visualization effectiveness of the whitepaper on ICO success. Thus, the high or low *AmoutRaised* is only meaningful when considered together with the overall capital needs of the ICO. Therefore, this study will not define the record with *AmoutRaised* of $100,000,000 as an outlier.[1] However, to reduce the skewness in the analysis process, this study conducts the subsequent analysis using Logamount, which is the logarithmic form of *AmoutRaised*. The mean of Logamount is 2.68, and at least 50% of the sample values are zero, whereas only 25% of the sample values are greater than or equal to 6.06 and the maximum value is 9.00. The third dependent variable, *SuccessRate* is an intrinsic rate variable with an average issue success rate of 12.91%, and only 25% of the sample had an issue success rate of more than 6.91%.

The dependent variable analysis shows that only 43.6% (72 divided by 165) of the ICO projects raised funds (Table 1 - Panel A), while the average for the entire sample is only 12.91% (Table 4 - Panel A). It indicates a more difficult task for an issuer who wants to raise funds through the ICO model.

7.2.1 Whitepaper style statistics

Table 4 - Panel A shows nine independent variables related to whitepaper visualization in this study. They can be divided into three categories. The first category is visualization information.

[1] An untabulated analysis shows that the main results continue to hold after removing the outlier.

At least 50% of the issuers use at least 8 *Pictures*, 7 *Charts*, and 3 *Tables* in their whitepapers. Each issuer uses 10.2 *Pictures*, 8.17 *Charts*, and 4.04 *Tables*. Comparing the two data sets shows that the mean is significantly larger than the median, suggesting that issuers are also more eager to use *Pictures*, *Charts*, and *Tables* to convey information.

The second category, Visualization Utility information, includes *Roadmap, TokenDis*, and *UseFunds*. The statistics show that at least 50% of the ICO projects disclosed all three pieces of Visualization Utility information through *Pictures*, *Charts*, or *Tables*. The statistics at P25 show that the number of issuers without visualization in this area is 0. This information indicates that visualization of *Roadmap, TokenDis*, and *UseFunds* has become the primary standard for the content of current whitepapers.

The third category is Font and Layout. It includes *FontColor*, *ThemeColor*, and *FontSize*. At least 50% of the ICO projects use *FontColor* and *ThemeColor* to differentiate and highlight critical information in the whitepaper through font or theme color. The statistics at position P25 show that the number of issuers that do not differentiate in font theme color is 0. The current essential criteria for whitepaper content should include the need to colorize critical text information. In addition, the *FontSize* statistics reveal that 50% of issuers use a font size of 10.25-12 for the body of the whitepaper, and the average font size is 11.95 font sizes.

With the above statistics of visual information variables of whitepapers, a basic style can be summarized. Namely, the widespread use of *Pictures, Charts*, and *Tables* will benefit investors' understanding. Moreover, *Roadmap, TokenDis*, and *UseFunds* should be handled in a particular way by *Pictures*, *Charts*, and *Tables* as much as possible. Different colors should distinguish the critical text or sections, and the font size should preferably be 11-12. This style is also the most popular whitepaper style currently.

7.2.2 Control Variable Statistics

From the statistics of control variables, it is found that firstly, the average issue period of ICO is 44.15 *Days*, and 50% of ICOs are issued in not less than 29 *Days*. Second, the mean value of *TeamSize* is 8.64, and 75% of the ICOs have a team size of not less than 5. The mean value of *AdviSize* is 3.05. 50% of the ICOs have an advisor size of not less than 2. Third, only 25% of the sample set up *MinInvest*. Fourth, at least 50% of the ICO projects can usually accept two cryptocurrencies. Fifth, at least 75% of the ICOs set *HardCap*, and at least 50% of the ICOs set *SoftCap*. Sixth, the mean value of *ICO-Listed* is 0.27, and the distribution information shows that the probability that the tokens created by the issuer can be in the late stage is about 25-30%. Finally, *Media* variables were used to measure whether they amplify the impact of whitepaper visualization on ICO success rates. The mean value of media resources per ICO sample was 3.18, and the maximum value was 15, with 50% of ICO projects having more than two media resources and 75% of ICO projects having at least one media resource.

From the above statistics, it can be summarized that in most cases of ICO offerings, the offering period is 29 *Days* or more, and a team of at least five people and two advisors are used. Further, issuers usually do not set *MinInvest*, but most limit *HardCap*, accept more than two cryptocurrencies and use at least one *Media* source. These phenomena show that ICOs are a customary practice of issuers in the market and a basic phenomenon and reference standard generally acceptable to the public.

7.3 Correlation analysis

In order to further explore the relationship between the variables, the correlation coefficients between the variables are presented in Table 4 - Panel B by Pearson and Spearman models.

The correlation coefficients are recorded in Table 4 - Panel B. The diagonal top of Table 4 - Panel B is analyzed according to the Pearson model. It can be found that *TeamSize* and *HardCap* are positively correlated with *Logamount*, with correlation coefficients of 0.17 and 0.18, respectively, which are statistically significant. It indicates that the higher the team size of the issuer or the higher the limit set by *HardCap*, the higher the *Amount Raised*. However, there is a correlation coefficient of -0.22 between *Media* and *Logamount*. It means that the higher the number of Media, the lower the Amount Raised. This phenomenon remains consistent with Hypothesis 2. In comparing the other dependent variable, *SuccessRate*, a statistically significant negative correlation coefficient can be found between *Roadmap*, *TokenDis*, *ThemeColor*, and *Days* and *SuccessRate*. It indicates that the visualization of *Roadmap* and *TokenDis* has an opposite relationship with *SuccessRate*, and the more *Days* issued, the lower the success rate of ICO. The correlation coefficients of *SuccessRate* with *TeamSize* and *HardCap* are 0.17 and 0.31, respectively, and this result is consistent with the findings of *Logamount*.

Table 4, Panel B's diagonal is an analysis based on the Spearman model. The correlation coefficients of *Logamount* with *TeamSize* and *HardCap* are statistically significant, 0.22 and 0.19, respectively, and there is a statistically significant correlation coefficient of -0.22 between Media and *Logamount*. The correlation analysis about *Logamount* was consistent with the conclusions obtained under Pearson's and Spearman's analysis method. In addition, the correlation coefficients of *SuccessRate* with *TeamSize* and *HardCap* are 0.24 and 0.47, respectively, and the conclusions are the same as those under Pearson's method. However, the correlation coefficient between

SuccessRate and *SoftCap* is 0.15, indicating a positive correlation. As with the *Logamount* analysis, *SuccessRate* is negatively correlated with *Media*, with a correlation coefficient of -0.16.

In conclusion, it can be preliminarily deduced that the dependent variables *Logamount* and *SuccessRate* are positively correlated with the independent variables *TeamSize* and *HardCap*, and negatively correlated with *Media*. However, although there are significant correlations between *TeamSize*, *HardCap*, and *Media* with *Logamount* and *SuccessRate*, the correlation coefficients of the variables, except for *SuccessRate* and *HardCap* under the Pearson and Spearman models, which are 0.31 and 0.47 are very small. Therefore, to further verify the weak correlations between the dependent and independent variables, this study will further refine the analysis of the visual variables in the whitepaper through regression analysis.

7.4 OLS Regression analysis

7.4.1 Whitepaper Visualization Variable Regression

This study first tested the dependent variable *Logamount* in ICOs. Since 93 ICOs in this study sample did not provide information on the amount raised, this study considered them failures and set the amount raised to zero. Therefore, only 72 non-zero *AmountRaised* ICOs were analyzed in this study by OLS regression. Table 5, Panel A Columns (1) presents the results of regressing the logarithm of *AmountRaised* (*Logamount*) on Whitepaper Variables and Control Variables. Thus, I found that *Logamount* and *Pictures* are positively correlated. Its regression coefficient is 0.071. The results suggest that using more *Pictures* in the whitepaper presentation of ICOs can raise more funds.

Second, in the test of the dependent variable *SuccessRate*, 165 Full Samples were used in this study. Table 5 Columns (2) shows that the success rate of ICOs (*SuccessRate*) is positively associated with *Pictures*, *FontColor*, and *HardCap*. Their regression coefficients are 0.010, 0.197, and 0.270, respectively. In addition, *SuccessRate* has a negative regression coefficient of -0.046 with *AccepCurrencies*. The results suggest that more funds can be raised by increasing the number of Pictures in the whitepaper, changing the font color of crucial information, and setting a higher cap on the amount raised.

Overall, the results summarized in Table 5 reveal that the ICO success rate is related to the whitepaper visualization. Especially the use of picture information and the special treatment of crucial text through different colors can send highlighting visual signals to the audience, thus evoking the attention of investors to reduce the evaluation risk. These results, taken as a whole, can help investors to distinguish the quality of the content of the whitepaper.

7.4.2 Effect of Media on Whitepaper Visualization

This study further tests the results after adding the Media factor based on the research method according to Table 5 to test hypothesis 2. First, the *Logamount* test is conducted. Based on the statistics of Table 1 - Panel C, the 72 non-zero-*AmountRaised* ICOs were divided into 47 samples with a Media number less than or equal to 1 and 25 samples with a Media number greater than 1. The analysis results are then presented in Columns (1) and (2), respectively. From the results of Columns (1), we can find that *Logamount* is positively correlated with *Pictures* and *Tables*, their regression coefficients are 0.112 and 0.373, respectively; and negatively correlated with *FontSize* with -0.581 regression coefficient. It means that when the number of media announced by the issuer is less than or equal to 1, more funds will be raised when there are more *Pictures* and *Tables* on the whitepaper. In this case, the font size in the text is too large, which will affect the amount raised. From the results of Columns (2), we can find that *Logamount* does not correlate with any of the variables when the number of Media is more than one.

Second, the *SuccessRate* test is performed. According to Table 1, Panel C statistics, the 165 ICOs were divided into two samples, a group of 78 with the number of Media less than or equal to 1 and a group of 87 with the number of Media greater than 1. The analysis results are then listed in Columns (3) and (4), respectively. From the results of Column (3), it can be found that *SuccessRate* is positively correlated with *Pictures*, *FontColor*, *HardCap*, and *ICO-Listed*, and negatively correlated with *FontSize*. Their regression coefficients are 0.011, 0.235, 0.378, 0.202, and -0.019, respectively. Using more *Pictures* and *FontColor* in the whitepaper will raise more money when the number of *Media* published by the issuer is less than or equal to 1. However, in Columns (4), only *SuccessRate* is positively correlated with *HardCap*. Its regression coefficient is 0.166

This phenomenon suggests that rational or professional investors will rely more on the content of whitepapers to make decisions when there are fewer media resources available. The use of *Pictures*, *Tables*, and different *FontColor* at this time will more likely increase the success rate of the amount Raised and ICO. However, the opposite effect can occur when the font size is too large. When investors have more media resources, a highly visual whitepaper is less attractive to investors, which does not significantly impact the amount Raised and the success rate of ICOs. From the perspective of control variables, the higher *HardCap* set by ICO issuers also contributes to the ICO success, and this phenomenon is not associated with the number of Media sources.

7.5 Findings

For an ICO issuer, producing a high-quality whitepaper does help to improve the success rate of an ICO. In this paper, the following findings are obtained through systematic research. First, when the number of media resources is 0 or 1, the ICO's Amount Raised or success rate is positively correlated with *Pictures*, *Tables*, changing the font color, and negatively correlated with Font Size. In addition, the success rate of ICO is also positively correlated with setting the upper limit of the Amount Raised. Second, when the number of media resources exceeds 1, the success rate of ICO is not related to the visualization degree of the whitepaper; however, it is still positively related to the setting of the upper limit of Amount Raised. Third, in the summary statistics of the sample, it is found that the current popular whitepaper style is widely used in *Pictures*, *Charts*, and *Tables*, especially in the three areas of ICO project timeline, fund usage, and token visualization. In addition, the font of the body of the whitepaper is usually in 11-12 font size. For crucial information, special treatment is given by using different color fonts and subject backgrounds. Moreover, the issuer usually does not set a minimum investment but specifies the maximum and the minimum amount to be raised for the project, assembles a team of at least five people, hires two advisors, and uses two media sources.

8. Discussion

8.1 Whitepaper visualization effectiveness and number of media used

The whitepaper is an essential source for investors to make decisions. Under the signal theory, the purpose of a highly visualized whitepaper by the issuer is to enhance readability to attract stakeholders to the information of the ICO project quickly. However, if the issuer uses media advertising to promote, the ICO project may be more effective than the whitepaper visualization under certain conditions. It can be demonstrated in two dimensions, on the one hand, media advertising can be done through video in a shorter period, the textual content of the whitepaper in the form of dynamic visuals before impacting the audience's brain, at which point a new message is generated. However, when the issuer promotes on only one media, it plays a limited impact utility and cannot completely replace the role of whitepaper visualization. In other words, the whitepaper is still the primary basis for investors' decisions. Thus, its visualization role remains valid when media advertising only plays a supplementary role. Therefore, the whitepaper can directly influence the funds raised by adding pictures, tables, and font color. On the other hand, when investors have access to more than one media source, they can get more information than from the whitepaper. The compound effect of multimedia may exceed the impact of a single whitepaper visualization on investors. At this point, numerous media advertisements become the primary basis for investors' decisions, and the role of the whitepaper is ignored. Therefore, the visualization of the whitepaper could not influence the funds raised.

8.2 The relationship between font size and ICO success

As shown in Table 6, *FontSize* becomes a statistically significant variable when the media resources are up to 1. It indicates that when investors analyze an ICO project with no or only one media resource, they can only depend on a careful reading of the whitepaper to decide. At this point, the font size in the body of the whitepaper is the first impression displayed to the audience. From the analysis results in columns (1) and (3), it can be found that *FontSiz* is negatively associated with *Logamount* and *SuccessRate*. The reason for this comes primarily from the effect of visualization on the audience's eyesight. The too big font may make readers' eyes more easily fatigued and make the whitepaper less readable. Hence, it will affect the success of raising funds and ICO. However, investors with more than one media source will not bother to read the whitepaper carefully. Therefore, at this time, the font size does not affect the reader's reading experience and thus does not impact the amount raised or the ICO's success.

8.3 The Relationship between *HardCap* and ICO Success

From Table 5 - column (2) and Table 6 - columns (3) and (4), a positive correlation is found between the control variable *HardCap* and *SuccessRate*. Moreover, this association is independent of the quantity of media resources. This result indicates that investors are very concerned about the total financing amount of ICO projects. Analyzed from a psychological activity perspective, investors usually do not want to be the significant creditor of an ICO project. In other words, they may not want to hold a share of the ICO too high but prefer to hold that share jointly with many other investors to reduce the investment risk. Furthermore, this will also prove that the investor's decision is correct, as other investors make the same decision as they do, which will create a sense of accomplishment. Thus, when the issuer announces *HardCap*, investors in the market will have a reference point. They will infer many potential indicators related to their decisions, such as the percentage of individual holdings, the project's debt ratio, expected cash flows, and other hypothetical indicators. Therefore, the higher the value of *HardCap* disclosure, the less the investor's shareholding, and the investment risk is relatively more minor, so the more willing to invest, the higher the probability of ICO success.

9. Theoretical and managerial implications

Hashemi Joo, Nishikawa and Dandapani (2019) found that ICOs have generated high returns for investors and entrepreneurs as innovative financing methods. One value of this study is it can further help investors reduce investment risk and help issuers improve the ICO success rate by examining the impact of whitepaper content on ICO funds raised from the perspective of its style, visualization, and readability.

First, this study has practical contributions. The paper results provide insight on whether the visualization of whitepapers matter for investors, and if yes, what are these visualization characteristics. It could indicate which segments of information in the whitepaper would benefit issuers more through visual disclosure and reduce the evaluation risk for investors. The findings of the paper may help the content of the ICO whitepaper to be more standardized, professional, and visualized. It may also help improve comparability and competitiveness among different ICO projects, thus promoting issuers' disclosure quality of internal information, facilitating investors' decision-making, and reducing market risk.

Second, it has academic contributions. The contribution of this paper to future academic literature is that it validates the association between the degree of visualization of the content form of whitepapers and the success rate of ICO offering. The findings can be used by other scholars to study more deeply in the field of whitepapers. Next, from a social utility perspective, high-quality, decision-useful whitepapers for investors better optimize the market environment and improve liquidity for ICOs, thereby enhancing the public interest and promoting community-wide economic growth.

In conclusion, the ICO market has many different styles of whitepapers, and which style is more conducive to making the ICO offering successful is the value of this study. This study is dedicated to identifying potential patterns in presenting information in whitepapers through a solid scientific basis. Its findings can help issuers to produce high-quality wrappers that are more readable, aesthetically pleasing, and appealing to the public.

10. Limitation, future research and conclusion

10.1 Data quality

The data for this study were all taken from the publicly available ICOBench.com. The overall number of ICOs issued during the 2019-2020 period was 640, of which the sample size of 165 downloadable was accurate. Moreover, the 8 control variables used for the analysis section were also extracted from ICOBench.com. Furthermore, during the extraction of the whitepaper visualization variables, this study strictly followed the criteria for counting statistics for *Pictures*, *Charts*, *Tables*, and Media information. Since the classification of these four types of visual information is very clear, there is no duplication in the counting process. Similarly, for the information collection of *Roadmap, TokenDis, UseFunds, FontColor,* and *ThemeColor*, this study only counted whether they existed objectively or not to pursue high reliability and does not perform the quantity aggregate statistics. That is, when the variable value exists, the statistics is 1; if the variable value does not exist, the statistics is 0.

For the *FontSize* variables, this study collected them by converting PDF documents into Word documents and then entering them into the sample statistics table by looking at the font size in the body. Therefore, this study is objective, valid, and reliable in the data collection, so the analysis results are also trustworthy.

10.2 Limitation

The limitations of this study come from two main aspects. First, the sample size was small. The full sample size was only 165, which is small compared to the sample size of other studies. The main reason for this phenomenon comes from the pandemic's impact on the economy on a global scale. The low sample size may cause the study results to be influenced by extreme outlier data and deviate from the actual phenomenon. Nevertheless, the current sample size does help the comparison of data before and after the pandemic, highlighting the impact of the pandemic on the ICO industry. Second, in collecting ICO control variables, such as *HardCap* and *AmountRaised*, currency units have missing values and inconsistencies. It further leads to the fact that the records with inconsistent currency units must be ignored and defined as null values in calculating *SuccessRate* in this study. From Table 1- Panel C, it can be found that the *AmountRaised* is 72 samples. And the *SuccessRate* sample is only 52. In general, the total sample size of this study is low, and the missing value further reduces the sample size available for analysis. Therefore, the stability of the results of this study is relatively sensitive, but the results of this study are still valid and reliable for the two particular periods of analysis, 2019 and 2020.

10.3 Future research

The sample of this study is extracted in the time interval of 2019-2020, with year 2020 started to being affected by pandemic. Almost all of the world is in a state of lockdown in most of 2020 and several years after. Hence, the global economic indicators are in a significant recession. The ICO industry is no exception. It has been verified from the data collection process of this study that there will be only 24 qualified whitepaper samples in 2020, accounting for 14.55% of the total sample. Due to the limitations is gathering a larger sample, deviations in the values of individual samples can directly affect the overall results. Therefore, in future analysis, scholars can further analyze the ICO market after the economic recovery. Since ICO is an emerging financing product, ongoing research and pre-and post-data comparison can help scholars discover the ICO market's evolution and growth process.

10.4 Conclusions

When the whitepaper is the only decision-making material for investors, the degree of visualization becomes one of the criteria for determining the quality of the ICO, which can affect the ICO success rate. However, Media sources can replace the visualization utility of the whitepaper, as their high exposure attributes can offset the visualization of the whitepaper. In this case, the whitepaper is no longer the sole source on which investors base their decisions. Nevertheless, a highly visualized whitepaper seems to be a valid tool for issuers to use in the ICO market, as it can quickly evoke the visual awareness of investors, thus reducing the risk of public evaluation and being more conducive to the healthy development of the ICO industry.

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Appendix A: Variable Definitions

Category	Variable Name	Definition
Dependent Variable	*AmountRaised*	Total amount of funds raised during ICO.
	Logamount	Numeric type. logarithmic form of *AmountRaised*.
	SuccessRate	Percentage value (0-100%). The ratio of Amount Raised divided by *HardCap*.
Independent Variables: Whitepaper Variables	*1. Pictures*	Number of photos and illustrations.
	2. Charts	Number of analysis *Charts*, maps and diagrams.
	3. Tables	Number of *Tables* or Bullets.
	4. Roadmap	Indicator variable that takes a value of 1 if Visualized *Roadmap* is disclosed; 0 otherwise.
	5. TokenDis	Indicator variable that takes a value of 1 if Visualized token for sale is disclosed; 0 otherwise.
	6. UseFunds	Indicator variable that takes a value of 1 if Visualized fund distribution is disclosed; 0 otherwise.
	7. FontColor	Indicator variable that takes a value of 1 if the text color of the body and paragraph headings are different is disclosed; 0 otherwise.
	8. ThemeColor	Indicator variable that takes a value of 1 if the subject of the whitepaper or part of the text area in the body appears non-white is disclosed; 0 otherwise.
	9. FontSize	A numeric value. The font size in the body paragraphs of the Whitepaper does not include any headings.
Independent Variables: Control Variables	*10. Days*	The number of *Days* from the ICO start to the end.
	11. TeamSize	Sum of team variable.
	12. AdviSize	Sum of advisor variable.
	13. MinInvest	Minimum investment per investor.
	14. AccepCurrencies	Number of acceptable token type.
	15. HardCap	The maximum amount that a project can be funded in order to be considered successful.
	16. SoftCap	The minimum amount that a project can be funded in order to be considered successful.
	17. ICO-Listed	An indicator variable equals to 1 if an ICO is listed on a cryptocurrency exchange; 0 otherwise.
Additional testing variables	*18. Media*	Number of social media (Facebook, Twitter, YouTube, etc.)

Table 1. Sample Construction

This table describes the sample construction process and the number ICOs available at each step of the process. The sample period is from January 2019 to December 2020.

Panel A: Sample Construction

Data source	Number of ICOs	
2019 ICOBench.com	573	
2020 ICOBench.com	67	
Total ICOs		640
Total ICOs with:		
a whitepaper		165
post-ICO trading data from CoinMarketCap.com (i.e., listed in a crypto exchange)		44
a whitepaper and the amount of funds raised		72
a whitepaper, the amount of funds raised, and post-ICO trading data		26

Panel B: Proportional stratified sampling by a whitepaper

Amount raised subgroup (stratum)	Number of ICOs selected
$100 million or more	1
$10 million to less than $100 million	10
$1 million to less than $10 million	35
More than $0 but less than $1 million	26
No amount raised information	93
All	165

Panel C: Availability of key variables

ICOs	Number of ICOs		Total number
With Amount Raised:		72	
With more than 1 no. of Media used	25		
With less than or equal 1 no. of Media used	47		
Without Amount Raised		93	165
With more than 1 no. of Media used	87		
With less than or equal 1 no. of Media used	78		165

Table 2. Numbers of ICOs by Year, Month and Country

This table provides summary statistics on the ICO sample used in this study. Panel A and B reports number of ICOs over our sample period by month from January 2019 to December 2020.

Panel A: Number of ICOs in each year over sample period

Year	Number of ICOs	Percent
2019	141	85.45%
2020	24	14.55%
Total	165	100%

Panel B: Number of ICOs in each month over sample period

Month	Number of ICOs	Percentage
2019 Jan	10	6.06%
2019 Feb	8	4.85%
2019 Mar	21	12.73%
2019 Apr	16	9.70%
2019 May	14	8.48%
2019 Jun	21	12.73%
2019 Jul	16	9.70%
2019 Aug	7	4.24%
2019 Sep	12	7.27%
2019 Oct	9	5.45%
2019 Nov	6	3.64%
2019 Dec	1	0.61%
2020 Jan	8	4.85%
2020 Feb	5	3.03%
2020 Mar	4	2.42%
2020 Apr	3	1.82%
2020 May	2	1.21%
2020 Jun	0	0.00%
2020 Jul	0	0.00%
2020 Aug	0	0.00%
2020 Sep	1	0.61%
2020 Oct	0	0.00%
2020 Nov	1	0.61%
2020 Dec	0	0.00%
Total	165	100.00%

Table 2. Numbers of ICOs by Year, Month and Country (continued)

Panel C: Number of ICOs in each country over sample period

	Country	N	%
1	Singapore	21	12.73%
2	USA	18	10.91%
3	N/A	13	7.88%
4	UK	12	7.27%
5	Estonia	9	5.45%
6	Cayman Islands	7	4.24%
7	Hong Kong	5	3.03%
8	Indonesia	5	3.03%
9	Malta	5	3.03%
10	Russia	4	2.42%
11	South Korea	4	2.42%
12	Switzerland	4	2.42%
13	Canada	3	1.82%
14	France	3	1.82%
15	Germany	3	1.82%
16	Netherland	3	1.82%
17	Nigeria	3	1.82%
18	Seychelles	3	1.82%
19	China	2	1.21%
20	Cyprus	2	1.21%
21	Gibraltar	2	1.21%
22	Israel	2	1.21%
23	Liechtenstein	2	1.21%
24	Malaysia	2	1.21%
25	Turkey	2	1.21%
26	Australia	1	0.61%
27	British Virgin Islands	1	0.61%
28	Belgium	1	0.61%
29	Bulgaria	1	0.61%
30	Egypt	1	0.61%
31	Honduras	1	0.61%
32	Ireland	1	0.61%
33	Italy	1	0.61%
34	India	1	0.61%
35	Lithuania	1	0.61%
36	Mauritius	1	0.61%
37	New Zealand	1	0.61%
38	Northern Mariana Islands	1	0.61%
39	Oman	1	0.61%
40	Panama	1	0.61%
41	Poland	1	0.61%
42	Romania	1	0.61%
43	Serbia	1	0.61%
44	Saint Kitts and Nevis	1	0.61%
45	Slovenia	1	0.61%
46	Spain	1	0.61%
47	Taiwan	1	0.61%
48	Thailand	1	0.61%
49	Ukraine	1	0.61%
50	United Arab Emirates	1	0.61%
51	Venezuela	1	0.61%
	Total	**165**	**100.00%**

Table 3. Summary Statistics on ICO Success Rate

This table provides summary statistics on the two factors (The Number of Visualization Information and Visualization Utility) we used to rate the Whitepaper of an ICO. See appendix A for the definitions of these two factors.

Panel A: *Pictures*, *Charts* and *Tables*

The Number of Visualization Information	More 40	31-40	21-30	11-20	1-10	0
N	23	27	32	33	43	7
% With amount raised (non-zero)	39%	59%	56%	21%	47%	57%
Mean amount raised (non-zero)	6,614,965	2,561,495	4,468,850	12,599,659	54,791,163	18,522,500
Mean amount raised (all)	2,588,465	1,517,923	2,513,728	2,672,655	25,484,262	10,584,286
% Mean *SuccessRate* (non-zero)	39%	22%	28%	54%	41%	82%
% Mean *SuccessRate* (all)	15%	13%	16%	11%	19%	47%
% With token trading data	17%	22%	28%	12%	33%	57%

Panel B: *Roadmap*, *TokenDis* and *UseFunds*

Visualization Utility	3	2	1	0
N	84	34	18	29
% With amount raised (non-zero)	43%	35%	50%	59%
Mean amount raised (non-zero)	3,619,314	4,264,332	10,332,073	68,506,637
Mean amount raised (all)	1,551,135	1,505,058	5,166,037	40,159,063
Mean *SuccessRate* (non-zero)	28%	28%	34%	62%
% Mean *SuccessRate* (all)	12%	10%	17%	37%
% With token trading data	15%	24%	22%	66%

Table 4. Descriptive Statistics on Dependent and Explanatory Variables

Panel A of this table reports summary statistics of the dependent and independent variables. Panel B shows the correlation coefficients of the regression variables. The definition for the variables is given in Appendix A. The sample covers the period from January 2019 to December 2020.

Panel A: Summary statistics

Variable	**N**	**Mean**	**SD**	**Min**	**P25**	**P50**	**P75**	**Max**
1. AmountRaised	165	8,621,910	78,138,849	0	0	0	1,143,531	1,000,000,000
2. Logamount	165	2.68	3.14	0.00	0.00	0.00	6.06	9.00
3. SuccessRate	165	12.91%	27.98%	0.00%	0.00%	0.00%	6.91%	100.00%
4. Pictures	165	10.20	10.02	0.00	0.00	8.00	17.00	46.00
5. Charts	165	8.17	7.02	0.00	3.00	7.00	11.50	38.00
6. Tables	165	4.04	5.24	0.00	1.00	3.00	5.00	32.00
7. Roadmap	165	0.73	0.44	0.00	0.00	1.00	1.00	1.00
8. TokenDis	165	0.69	0.46	0.00	0.00	1.00	1.00	1.00
9. UseFunds	165	0.62	0.49	0.00	0.00	1.00	1.00	1.00
10. FontColor	165	0.62	0.49	0.00	0.00	1.00	1.00	1.00
11. ThemeColor	165	0.65	0.48	0.00	0.00	1.00	1.00	1.00
12. FontSize	165	11.95	3.94	1.00	10.25	11.00	12.00	40.00
13. Days	165	44.15	52.96	0.00	5.00	29.00	62.00	259.00
14. TeamSize	165	8.64	4.62	0.00	5.00	8.00	11.00	27.00
15. AdviSize	165	3.05	3.43	0.00	0.00	2.00	5.00	19.00
16. MinInvest	165	0.40	0.49	0.00	0.00	0.00	1.00	1.00
17. AccepCurrencies	165	2.10	1.46	1.00	1.00	2.00	3.00	11.00
18. HardCap	165	1.49	0.76	0.00	1.00	2.00	2.00	2.00
19. SoftCap	165	1.02	0.92	0.00	0.00	1.00	2.00	2.00
20. ICO-Listed	165	0.27	0.44	0.00	0.00	0.00	1.00	1.00
21. Media	165	3.18	3.04	0.00	1.00	2.00	5.00	15.00

Table 4 (continued)

Panel B: Pearson (reported in upper diagonal) and Spearman (lower diagonal) correlation coefficients

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. AmountRaised		0.21**	0.03	-0.08	-0.09	-0.04	-0.14	-0.14	-0.12	0.06	0.05	-0.03	-0.07	-0.04	-0.08	-0.05	-0.06	-0.13	-0.09	-0.03	-0.07
2. Logamount	1.00**		0.59**	0.12	-0.02	-0.02	-0.12	-0.14	-0.04	0.05	-0.10	0.01	-0.06	0.17*	0.13	0.14	-0.06	0.18*	0.05	0.10	-0.22**
3. SuccessRate	0.80**	0.80**		-0.02	-0.02	-0.05	-0.23**	-0.17*	-0.15	-0.15	-0.23**	-0.12	-0.17*	0.17*	0.02	0.12	-0.10	0.31**	-0.03	0.04	-0.15
4. Pictures	0.07	0.07	0.10		0.36**	0.11	0.44**	0.42**	0.33**	0.27**	0.21**	-0.06	0.16*	0.24**	0.26**	0.03	0.09	0.16*	0.41**	0.07	0.11
5. Charts	0.00	0.00	0.03	0.43**		0.41**	0.32**	0.34**	0.28**	0.20**	0.19*	-0.12	0.01	0.18*	0.27**	-0.08	-0.07	0.05	0.20*	-0.06	0.08
6. Tables	-0.04	-0.04	-0.08	0.34**	0.41**		0.29**	0.32**	0.22**	0.21**	0.24**	0.15	0.22**	-0.01	0.10	-0.03	-0.09	0.07	0.26**	0.00	0.14
7. Roadmap	-0.13	-0.13	-0.11	0.52**	0.35**	0.46**		0.52**	0.44**	0.46**	0.54**	0.07	0.19*	0.02	0.06	0.10	0.08	0.12	0.40**	0.00	0.11
8. TokenDis	-0.14	-0.14	-0.09	0.46**	0.37**	0.48**	0.52**		0.62**	0.34**	0.40**	0.05	0.23**	-0.02	0.14	0.06	-0.01	0.07	0.33**	0.02	0.22**
9. UseFunds	-0.06	-0.06	-0.05	0.37**	0.30**	0.36**	0.44**	0.62**		0.27**	0.38**	0.09	0.16*	0.02	0.15	-0.01	-0.07	0.02	0.22**	0.04	0.08
10. FontColor	0.04	0.04	0.00	0.31**	0.22**	0.31**	0.46**	0.34**	0.27**		0.77**	0.15	0.05	-0.05	0.05	0.06	0.05	0.06	0.17*	-0.04	0.18*
11. ThemeColor	-0.11	-0.11	-0.13	0.29**	0.19*	0.33**	0.54**	0.40**	0.38**	0.77**		0.13	0.07	-0.06	-0.01	0.02	-0.07	0.00	0.14	-0.09	0.14
12. FontSize	0.01	0.01	-0.05	0.02	-0.05	0.06	0.07	0.15	0.22**	0.12	0.08		0.01	-0.16*	0.09	-0.02	-0.08	-0.02	-0.03	-0.12	0.03
13. Days	-0.10	-0.10	-0.11	0.22**	0.03	0.27**	0.23**	0.29**	0.17*	0.06	0.13	0.10		-0.03	-0.07	0.09	0.05	-0.05	0.18*	0.07	0.23**
14. TeamSize	0.22**	0.22**	0.24**	0.27**	0.24**	0.05	0.06	0.03	0.07	-0.03	-0.06	-0.13	-0.01		0.10	0.01	-0.06	0.17*	0.12	0.00	0.01
15. AdviSize	0.12	0.12	0.09	0.26**	0.34**	0.13	0.07	0.12	0.11	0.03	-0.04	-0.05	-0.14	0.17*		-0.07	-0.04	0.02	0.09	-0.03	-0.10
16. MinInvest	0.14	0.14	0.12	0.08	-0.06	0.06	0.10	0.06	-0.01	0.06	0.02	0.04	0.22**	0.03	-0.07		0.10	0.24**	0.25**	0.23**	0.17*
17. AccepCurrencies	-0.04	-0.04	-0.01	0.16*	-0.07	0.02	0.15	0.04	-0.03	0.09	-0.01	0.02	0.11	0.00	-0.01	0.10		0.20**	0.22**	0.23**	0.19*
18. HardCap	0.19*	0.19*	0.47**	0.17*	0.07	0.00	0.12	0.07	0.01	0.08	0.00	-0.03	-0.04	0.26**	0.11	0.19*	0.23**		0.54**	0.14	0.12
19. SoftCap	0.06	0.06	0.15*	0.43**	0.21**	0.26**	0.40**	0.33**	0.22**	0.17*	0.14	0.06	0.29**	0.19*	0.15	0.25**	0.27**	0.52**		0.28**	0.16*
20. ICO-Listed	0.11	0.11	0.11	0.07	-0.10	-0.05	0.00	0.02	0.04	-0.04	-0.09	-0.04	0.16*	0.04	-0.01	0.23**	0.21**	0.14	0.28**		-0.06
21. Media	-0.22**	-0.22**	-0.16*	0.10	0.12	0.07	0.07	0.20*	0.03	0.19*	0.12	0.17*	0.26**	-0.04	-0.09	0.15*	0.12	0.07	0.11	-0.11	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 5 Test of H1

The interaction between the visualization information of Whitepaper and the ICOs issuance information with the *AmountRaised* and *SuccessRate*.

The table reports the results of regressing the total amount of funds raised and Success Rate during the ICO period on the interaction term between the visualization information in the Whitepaper and the issuance information of the ICOs. Columns (1) to (2) summarize results using an OLS. The definition for the variables is given in Appendix A. The sample period is from January 2019 through December 2020. t- or z-statistics are reported in parentheses under the estimated coefficients, with *, **, and *** indicating statistical significance at the 10%, 5% and 1% levels.

	(1)	**(2)**
Sample Filtering	***Logamount* (*AmountRaised* > 0)**	***SuccessRate* (Full Samples)**
1. Pictures	0.071*	0.010**
	(1.73)	(2.37)
2. Charts	-0.029	-0.003
	(-0.48)	(-0.54)
3. Tables	0.125	-0.002
	(1.48)	(-0.30)
4. Roadmap	-0.787	-0.114
	(-0.73)	(-1.09)
5. TokenDis	-1.430	-0.097
	(-1.46)	(-0.98)
6. UseFunds	-0.934	0.074
	(-1.06)	(0.84)
7. FontColor	-0.375	0.197*
	(-0.29)	(1.81)
8. ThemeColor	0.628	-0.165
	(0.43)	(-1.39)
9. FontSize	-0.076	-0.01
	(-0.65)	(-1.12)
10. Days	-0.006	-0.000
	(-0.94)	(-0.09)
11. TeamSize	0.013	0.004
	(0.15)	(0.52)
12. AdviSize	0.053	0.000
	(0.59)	(0.00)
13. MinInvest	0.441	0.021
	(0.68)	(0.30)
14. AccepCurrencies	0.395	-0.046*
	(1.42)	(-1.94)
15. HardCap	0.266	0.270***
	(0.49)	(5.06)
16. SoftCap	-0.203	-0.017
	(-0.41)	(-0.35)
17. ICO-Listed	-0.156	0.108
Observations	72	165
R-squared	0.238	0.312

Table 6 Test of H2

After adding the Media Advertising factors, the interaction between the visualization information of Whitepaper and the ICOs issuance information with the *AmountRaised* and *SuccessRate*.

The table reports the results of regressing the interactive effect of ICO issuers after using media advertising. Columns (1) to (4) show results of using an OLS. The definition of the variables is given in Appendix A. The sample period is from January 2019 through December 2020. t- or z-statistics are reported in parentheses under the estimated coefficients, with *, **, and *** indicating statistical significance at the 10%, 5% and 1% levels.

Sample Filtering	(1) *Logamount* (*AmountRaised* > 0 and Media ≤ 1)	(2) *Logamount* (*AmountRaised* > 0 and Media > 1)	(3) *SuccessRate* (Full Samples and Media ≤ 1)	(4) *SuccessRate* (Full Samples and Media > 1)
1. Pictures	0.112**	0.083	0.011*	0.004
	(2.23)	(0.67)	(1.89)	(0.67)
2. Charts	-0.011	0.432	-0.008	0.014
	(-0.16)	(1.53)	(-1.12)	(1.55)
3. Tables	0.373*	-0.304	-0.014	-0.003
	-2.04	(-1.33)	(-1.04)	(-0.34)
4. Roadmap	-1.741	-4.005	-0.108	-0.004
	(-1.44)	(-0.68)	(-0.76)	(-0.02)
5. TokenDis	-1.593	-9.831	0.012	-0.071
	(-1.49)	(-1.23)	-0.09	(-0.47)
6. UseFunds	-0.373	6.379	-0.076	0.172
	(-0.43)	(0.8)	(-0.64)	(1.43)
7. FontColor	0.101		0.235*	0.046
	(0.07)		(1.68)	(0.27)
8. ThemeColor	0.678	-1.365	-0.068	-0.124
	(0.44)	(-0.39)	(-0.43)	(-0.75)
9. FontSize	-0.581***	0.646	-0.019*	-0.009
	(-3.19)	(1.86)	(-1.68)	(-0.73)
10. Days	-0.004	0.02	0	0
	(-0.51)	(0.81)	(-0.28)	(0.46)
11. TeamSize	0.036	-0.225	0.002	-0.001
	(0.37)	(-0.81)	(0.16)	(-0.08)
12. AdviSize	0.012	-0.701	-0.004	-0.013
	(0.12)	(-1.30)	(-0.29)	(-0.91)
13. MinInvest	-0.737	3.122	0.123	-0.047
	(-0.94)	(1.46)	(1.25)	(-0.54)
14. AccepCurrencies	0.007	0.432	0.02	-0.029
	(0.02)	(0.44)	(0.49)	(-1.01)
15. HardCap	0.581	-0.144	0.378***	0.166**
	(1.04)	(-0.08)	(5.29)	(2.27)
16. SoftCap	-0.746	1.071	-0.08	-0.014
	(-1.32)	(0.75)	(-1.17)	(-0.21)
17. ICO-Listed	-0.563	0.181	0.202*	0.054
	(-0.67)	(0.05)	(1.80)	(0.43)
Observations	47	25	78	87
R-squared	0.434	0.522	0.568	0.231