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Faculty of Business Economics

Master of Management

Master's thesis

Initial Coin Offerings: An Emergent Alternative Financing Mechanism

Bonuola Iruemiobe

Thesis presented in fulfillment of the requirements for the degree of Master of Management, specialization Business Process Management

SUPERVISOR :

Prof. dr. Sebastien LIZIN



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Summary

Research purpose

The global financial sector has experienced changes from the absolute dependence on traditional financial institutions to the need for alternative financing mechanisms for financing small and medium scale enterprises as well as financing project ideas. Digitization and innovation in the financial sector birthed crowdfunding and eventually initial coin offerings (ICOs) as an alternative source of funding leveraging the internet to connect project initiators or start-ups with project investors.

The objective of this research is aimed at understanding the benefits, motivation, and challenges of initial coin offerings tokens as an alternative source of funding, especially in this digital economy with a focus on the legal and regulatory aspects, providing recommendations for a regulatory framework for this sector.

Literature Review

Crowdfunding utilizes internet-based platforms to connect project creators and project supporters. This crowdfunding platform assists in their interaction by offering intermediaries services including project information and in turn, gain processing fees and platform payment fees. Initial coin offerings acquire funding through cryptocurrencies using tokens that be sold on the internet or used in exchange for the company's products or services. The blockchain technology behind ICOs enables direct peer-to-peer transactions while eliminating the need for intermediaries like crowdfunding platforms. Crowdfunding and Initial coin offerings share similarities as they both provide an alternative source of financing for projects by bringing capital seekers and capital givers "crowd" together however crowdfunding platforms need intermediaries for payments while the ICOs operate a decentralized model. ICOs have shown to be a cost-effective and methodical way for businesses and entrepreneurs to raise funds for projects or company concepts.

Research methodology

A qualitative research was chosen to achieve the objectives of the thesis topic. Qualitative research is mainly used when the data cannot be measured or counted. One of the major advantages that the qualitative research method offers is that it is appropriate for a small sample size.

For the purpose of this study, an inductive research approach was used with the grounded theory method. An inductive approach is recommended when the knowledge about a particular subject is limited. The inductive approach offers a set of procedures for assessing qualitative data that is simple to apply and produces reliable and valid results. The goals of using the inductive approach include summarizing textual data into a simple format and demonstrating the relationship between the research objective and the summary of the research findings.

An in-depth interview was used to gather information for this study. The combination of structure and flexibility is a significant component of an in-depth interview. A semi-structured questionnaire with open-ended questions was used as the data collecting method, with the flexibility to provide follow-up questions that served as the interview guide. Semi-structured interviews feature important

questions that help establish the areas to be investigated, but they also allow you to delve deeper into a concept or response.

Questions were prepared in the interview guide was meant to facilitate the achievement of the research objectives and the participants were allowed to give additional comments or clarify earlier questions. The questions were grouped into three main categories namely Introductory questions, middle questions, and end questions. The introductory questions were aimed at enquiring about the participant's experience with alternative financing mechanisms while the middle questions were to shift attention to the specific alternative financing mechanism under research. Lastly, the end questions were future-oriented questions about initial coin offerings.

The sampling method used in the search is snowballing which is a non – probability sampling method. This sampling method was used due to the difficulty to reach the target audience. The sample size was then chosen based on their knowledge, relationship, competence, work experience, and research background on traditional and alternative financing mechanisms. The aim is to achieve saturation within the sample size taking into consideration differences in the opinions and viewpoints of the participants. The participants of the study include two participants from the traditional financial sector, a researcher on ICOs, an economist, and a blockchain researcher.

All relevant data gotten from the in-depth interview was reviewed. Open coding was done to identify concepts and then axial coding was used to identify emergent themes and categorized them under thematic categories. Lastly, selective coding was used to group the themes under a core category which presents the grounded theory to explain the benefits, motivation, and challenges of initial coin offerings using cryptocurrencies as an alternative form of financing.

Findings/Results

Based on the literature review, it was identified that while ICOs provide an alternative source of financing for businesses which is a key motivation for entrepreneurs, it is however plagued by certain challenges such as anonymity which has its positive and negative aspects, posing high risks to investors and resulting in loss of investments, fraudulent or scam projects and the lack of regulation which is a high cause of concern for regulatory authorities.

Our findings show that the cost of capital and its requirements are some of the reasons why entrepreneurs prefer ICOs over traditional financial institutions as an alternative source of funding. For the entrepreneurs, ICOs offer an easier way to access financing to a global audience while for investors, it presents democratization of funds, flexibility, lower costs in investments, and access to new projects & technology. The downside of ICOs is the lack of transparency, frauds or scams, and anonymity which is a source of concern for KYC and AML. The findings also highlighted the legal and regulatory challenges of ICOs including lack of a classification of the different tokens, inadequate oversight, and knowledge about the technology, instability, lack of standardization, the need to protect investors, lack of legal enforceability, and regulation applicable.

Critical Considerations

It is therefore important for all stakeholders including policymakers and regulatory authorities to acquire adequate knowledge of this innovative financial technology to maximize both the current benefits and explore the future benefits tokenization could potentially offer. There is a need for a legislative and regulatory framework for ICOs in order to support the use of cryptocurrencies through tokens as an alternative source of financing. The regulations put in place by policymakers across jurisdictions will ensure not only the growth and development of ICOs but also allow the entrepreneurs and investors to reap the potential benefits that this alternative source of financing offers. In addition, the regulations will help in reducing the risks and challenges associated with this mechanism while boosting confidence and overall market integrity in the sector.

There were a few limits to the thesis that should be considered in future research on the subject. The following are some of the limitations: Participants were unable to respond to some questions due to a lack of experience or knowledge: A suggestion for future research is to seek those who are willing and likely to have the relevant expertise regarding the subject. Another limitation was the regulatory authorities' and bodies' lack of willingness to engage in the study. One way to overcome any hesitation about participating is to emphasize how much the research will benefit from the participants' unique thoughts or contributions.

Acknowledgments

This thesis forms part of the final requirement for my Master of Management. The last two years have truly been filled with so much learning and personal growth especially since the master's program was started during the Covid-19 pandemic in 2020. This presented its own unique challenges with studying remotely. This could be perceived as a blessing in disguise as I quickly adjusted to this virtual and semi-independent style of learning and my thesis supervision was mainly done remotely.

One of the most important things that got me through this journey has been the people who have been my support system. I am extremely fortunate to have gotten this right from the start of the program to the completion of my project work. I would like to express my deepest gratitude to the following people.

First, I would like to thank God. My faith has played a significant role in my educational path and has seen me through my moments of doubts, and uncertainties, and motivated me to push till the end.

I would like to express my deepest gratitude to my thesis promoter Professor. Dr. Sebastien Lizin and supervisor Luc Van Limpt. I am very thankful for their guidance, unwavering support, constructive criticism, timely feedback, and finally patience right from the beginning till the completion of my project work. Their support and encouragement led to the completion of my project work. At different stages of the project, Professor. Dr. Sebastien Lizin's supervision and support shaped the project to its successful completion. I am privileged to have him as my promoter

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1 Problem Statement and Research Plan

1.1 Problem Statement

The financial market was significantly impacted by the 2008 financial crisis leading to the crash of renowned financial institutions like the Lehman brothers. Its impact also led to exceptional government intervention worldwide and brought the global credit market to a standstill. The US government intervention resulted in insurance for assets of financial institutions up to \$700 billion assets included in the troubled assets relief program (TARP). In comparison, the British government put a rescue plan of loans and guarantees for banks amounting to about £500 billion (Erkens et al., 2012) and had an overall negative effect on the global economy (Gros & Alcidi, 2010). The banking sector was burdened by increased regulation, such as an increase in minimum capital requirements, liquidity ratios, and widening risk in which bank capital requirements applied were imposed by the regulatory bodies (Kallio & Vuola, 2020; Mitchell et al., 2017). These changes contributed to decreasing the ability of financial institutions to provide the necessary financial means for businesses. In particular, the reduction in the bank's risk appetite further reduced the banking sector's enthusiasm for providing finance or granting loan facilities to entrepreneurs or businesses to reduce their debt burden (Kuti & Madarász, 2014). Previously, businesses were mainly dependent on traditional financial institutions funding sources. However, the gap created by changes, such as increased regulation, higher capital ratios, and preventing the use of their balance sheet, in the financing structure of financial institutions has led to the need for alternative sources of financing to meet the financing needs of small and medium scale enterprises, start-ups, as well as funding projects (Kallio & Vuola, 2020).

Financial technology's digitization and innovation gave birth to crowdfunding, an alternative funding source for businesses and entrepreneurs. This alternative funding source leverages the use of the internet as a platform connecting people looking for financing for their project ideas, ventures, and businesses with interested parties who are prepared to invest their money in these projects (Kuti & Madarász, 2014). Crowdfunding acts as a substitute for raising funding without going through the traditional financial institutions (Bouncken et al., 2015). Crowdfunding can be categorized as an emerging source of funding for businesses or entrepreneurs that seek to acquire financing for their projects without the backing of venture capitalists or traditional financial institutions (Mollick, 2014). In other words, it creates an opportunity for entrepreneurs to acquire financing directly from the public who in this context are referred to as the "crowd" through the use of internet-based platforms, see Figure 1 (Schwienbacher & Larralde, 2010).

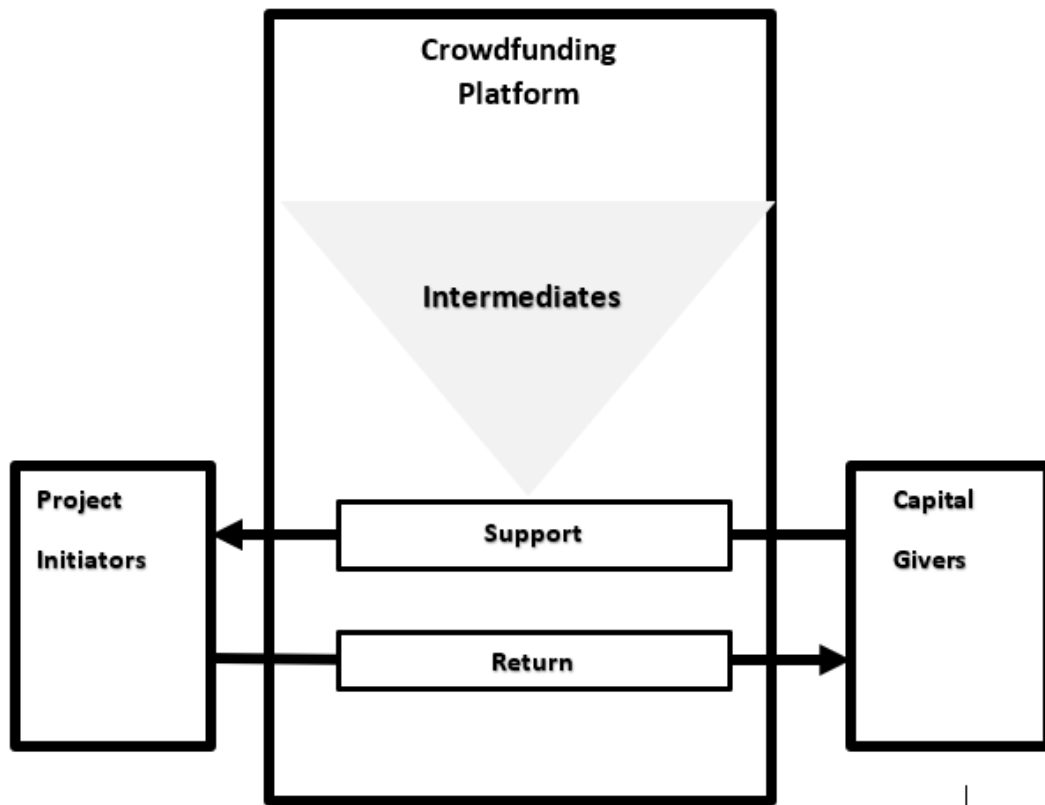


Figure 1 The Concept of Crowdfunding (Funk,2019)

Capitalizing on this emerging financial technology, crowdfunding platforms have resulted into an internet-based platform that acts as a meeting place for the project founders or owners and their potential supporters or funders to assist in the exchange between them (Kallio & Vuola, 2020; Shneur & Flåten, 2015). The internet offers a two-way communication enabling campaign owners and campaign backers a platform of interaction (Kallio & Vuola, 2020). In addition, as seen in figure 1 above, the crowdfunding platforms serves as a broker between investors and businesses, presenting them with a medium to source for the financing needed in the case of the project owners or entrepreneurs and an opportunity for the potential supporters willing to fund their projects (European Commission. Directorate-General for the Information Society and Media. & SpaceTec Capital Partners GmbH., 2014; Funk, 2019). Several crowdfunding platforms such as Fundable, Kickstarter, Kiva, Sandawe, and SellaBand with Kickstarter being one of the biggest crowdfunding platforms have risen to the forefront (Belleflamme et al., 2010) According to kickerstarter.com since its launch in April 2019 they have had 20 million people back a project, with \$6.2 billion dollars pledged and 215,027 successfully funded projects (Kickstarter, 2022) These Crowdfunding platforms offer intermediary services between by determining the crowdfunding model including funding terms, investment size, manage risk or uncertainties from project and provide information between capital seekers and capital (Gasparro & Monk, 2020) The benefits that the crowdfunding platform gain from functioning in this capacity are the platform payment fees and the payment processing fees (Gerber & Hui, 2013).

Similarly, initial coin offerings (ICOs) can also be defined as an open invitation for financing by businesses and entrepreneurs to raise funds like crowdfunding. ICOs procure funding through cryptocurrencies using tokens which can be sold on the internet or in exchange for a company's products or services (Adhami et al., 2018). With the advent of blockchain technology and distributed ledger technology creating a process where users can digitally exchange value and assets with each other without the need of intermediaries like the crowdfunding platforms while maintaining security and preserving the users' anonymity (Rrustemi & Tuchschnid, 2020). Basically, the reliance on the blockchain technology for peer to peer (P2P) transactions has eradicated the need for a financial intermediary which makes it an attractive option for crowdfunding for both parties as it enables direct interaction between participants and lower transaction costs (Schweizer et al., 2018). Trading with ICOs entails a company, often a start-up, issuing a cryptocurrency or a token which is acquired by an interested party or investor granting them a right to dividends, claim or financial rewards (Adhami et al., 2018). While crowdfunding and ICOs share certain similarities in providing a means of raising alternative financing for project by bringing investors and projects together beyond the traditional financial institutions, they also differ in the methods in which both parties connect. Crowdfunding platforms need intermediaries for payment and communication while the ICOs model is basically decentralized (Arnold et al., 2019).

Whereas ICOs successfully raised 7.5 billion dollars in 2017 (Amsden & Schweizer, 2019; Benedetti & Kostovetsky, 2021) surpassing venture capitalists in amount in the same year, they are not full proof. The lack of regulation, issuance of scam coins and inadequate cyber security from possibilities of hacks and cyber-attacks on token trading platforms has resulted in a cause for concern for regulatory bodies as they present potential high risks for investors (Arnold et al., 2019). The anonymity of cryptocurrency accounts which guarantees security and transactions being irreversible could also create a source of potential risks which could occur including high risk of fraud and investors losing their funds (Benedetti & Kostovetsky, 2021). There has also been a high rate of failure with ICOs campaigns with about half of the 2017's ICOs resulting in failure further highlighting the high risk that project investors could potentially face after investing (Arnold et al., 2019). There is also the risks that entrepreneurs or project owners list fictitious projects and scam investors of their funds (Benedetti & Kostovetsky, 2021). In addition, the anonymity offered by distributed ledger technology used for ICOs limits the amount of information that is shared between the project owners or fundraisers and the investors (Kaal & Dell'Erba, 2017). Businesses using this form of alternative funding do not necessarily disclose critical information to their investors (Rrustemi & Tuchschnid, 2020).

There have been warnings issued by various securities exchange commissions including the United states about the risks involved in participating in an ICOs as they may need to be governed under certain laws and meet certain requirements (Adhami et al., 2018). The European Commission in a document on Fintech Action plan published in March 2018 stated that "ICOs may offer firms new and innovative ways of raising capital" but also pose inevitable risks to their investors (Commission, n.d.) Countries like China and South Korea banned ICOs in 2017 while other countries like

Switzerland and Singapore which were sanctuaries for ICOs are amending their regulations(Benedetti & Kostovetsky, 2021).

Nevertheless, with the increased need for alternative funding beyond traditional financial institutions for business ventures or projects and the potential of high rates of return on investment on cryptocurrencies tokens that serves as motivation for investors as part of the drivers that keep ICOs alive (Metke, J. 2017). It is therefore important to also investigate and understand all the benefits, motivation and challenges of initial coin offerings tokens as an alternative source of funding especially in this digital economy. It is necessary to fully understand the concept of crowdfunding using crowdfunding platforms and using initial coin offerings including future possibilities of tokenization.

1.2 Research Plan

The major objectives of this research will be to

1. Provide an adept description into crowdfunding as an alternative source of funding for projects or businesses.
2. To explore the concept of initial coin offerings through sales of cryptocurrencies and tokens as a credible source of crowdfunding.
3. To empirically investigate the benefits, motivation and challenges of initial coin offerings using cryptocurrencies as an alternative form of financing.

1.3 Main Research Question

To reach the research objectives, this thesis will answer the main research question which is

RQ: What are the benefits, motivation and challenges of initial coin offerings using cryptocurrencies as an alternative form of financing?

To solve this research question, the approach will consist of two phases. In the literature review, we will address the 1st and 2nd objectives by an analysis of existing literature that has been done in the fields of crowdfunding and Initial coin offerings. To address objective 3, an empirical research will be conducted using a qualitative research method being the in-person semi-directed interview with relevant stakeholders to gather in depth data .

1.4 Relevance of the Research

This study will add to empirical knowledge on the benefits, motivation and challenges with regards to crowdfunding and ICOs as an alternative source of financing for businesses. It will also add knowledge on the future of tokenization

1.5 Thesis Outline-

Subsequent to this section, the remainder of the thesis is organized as follows. Section 2 will be the detailed literature review on crowdfunding and characteristics of initial coin offerings to gain insights into all the concepts related to this study. Section 3 will consist of the methodology for the research. In Section 4, the results will be presented and discussed. Section 5 holds the conclusions.

2 Literature Review

2.1 Crowdfunding

Crowdfunding is a financial technology-enabled service that emerged in the new millennium's digital age (Romano & Schmid, 2017) and it has been well-documented as an alternative and necessary form of financing with worldwide appeal (Belleflamme et al., 2014; Brem et al., 2019). The overwhelming evidence of the crowdfunding boom attests to the growing interest in the collective power of technology-driven individuals, dubbed the "crowd," as well as the notion of crowdsourcing, giving it international legitimacy (Smith & Hong, 2016). Initially, crowdfunding relied on small donations from members of the public who wanted to support a project concept or enterprise without requiring the owners to give up ownership or equity, but it has gradually evolved into a promise of reward, equity or revenue (Rrustemi & Tuchschnid, 2020).

Consequently, crowdfunding has emerged as a viable option for entrepreneurs seeking external capital for their projects or businesses (Belleflamme et al., 2014) When traditional financial institutions were hesitant to finance projects during the global financial crisis, this alternative financing method emerged as a new source of funding for small and medium-sized firms (Gasparro & Monk, 2020). Crowdfunding revolutionized this process by allowing the democratization of finance by removing barriers, lowering regulations, and bringing innovation to the public eye (Mollick, 2014; Mollick & Robb, 2016). The crowdfunding process essentially involves an open appeal on the internet in order to reach a big audience in order to raise funds to sponsor or support a project (Popescul et al., 2020).

Lambert and Schwienbacher (2010) support this definition, stating that crowdfunding is "an open call, primarily through the internet, for the provision of financial resources in the form of donation or in exchange for some form of reward or voting rights to support initiatives for specific purposes." Crowdfunding is based on the concept of crowdsourcing, which entails enlisting the help of the public to gather ideas, opinions, and solutions for the development of company activities (Kleemann et al., 2008) The availability of alternative capital for entrepreneurs is one of the key goals of crowdfunding. It is also general knowledge that raising money through bank loans or equity capital is one of the most difficult obstacles faced by start-ups or new enterprises in their early stages (Belleflamme et al., 2010; Cosh et al., 2009). The process of raising financing for start-ups or enterprises used to be largely synonymous with ownership dilution, with venture capitalists or private investors (business angels) seeking equity or part ownership of the company (Rrustemi & Tuchschnid, 2020). While venture capital and business angels may offer a significant sum, the entrepreneur must rely on personal resources, family, and friends to obtain smaller amounts. Despite this, many businesses and enterprises are unable to raise the capital they require due to their inability to demonstrate value and persuade investors (Belleflamme et al., 2010). As a result, crowdsourcing appears to be an appealing alternative source of finance for these businesses or initiatives.

In addition to serving as a fund source, crowdfunding can also serve as a source of incentive for entrepreneurs. Popescul et al. (2020) claim that crowdfunding has non-financial benefits as well,

such as attracting new employees, utilizing crowd intelligence, garnering media attention, obtaining client feedback, and developing a future pool of clients. In addition, figure 2 below depicts added value of crowdfunding that have been mentioned by other authors, such as assisting businesses in gaining knowledge about their products and services, gaining market insights about customer preferences, and developing new products or services. This information could potentially be used by businesses to promote and market their products (Belleflamme et al., 2010). As a result, crowdfunding allows an entrepreneur to create or form a community around their offerings by utilizing the power of the internet, as well as collect market intelligence and enter new market segments (Commission & Directorate-General for Internal Market Entrepreneurship and SMEs, 2017).

Crowdfunding assists entrepreneurs in managing entrepreneurial ventures or business concepts by employing new strategies, which complements new business development techniques in which the crowd becomes more actively involved in the firm as investors, consumers, or both (Belleflamme et al., 2014). According to Popescu et al. (2020), these investors are usually experts and clients who can help with the sales and production of the entrepreneurs' goods and services. Hervé & Schwienbacher (2018) also look into the novel idea of audience participation in the production process by providing feedback to the entrepreneur. This feedback could occur during pre-development, product development, and post-campaign by providing information about future demand for the product (Hervé & Schwienbacher, 2018).



Figure 2 : Added Values of Crowdfunding (source www.crowdcreator.eu/intor-crowdfunding)

2.1.1 Types of Crowdfunding & their Characteristics

There are many different sorts of crowdfunding, and while they all have the same goal of raising funds, each one has its own distinct qualities. Crowdfunding models can be further grouped into two namely: the non-financial return or investment models including donations, reward based crowdfunding and the financial return or investment models comprising of equity or debt (lending) based crowdfunding (Arnold et al., 2019; European Commission. Directorate-General for the Information Society and Media. & SpaceTec Capital Partners GmbH., 2014; Popescul et al., 2020)Figure 3 depicts the four most common models of crowdfunding.

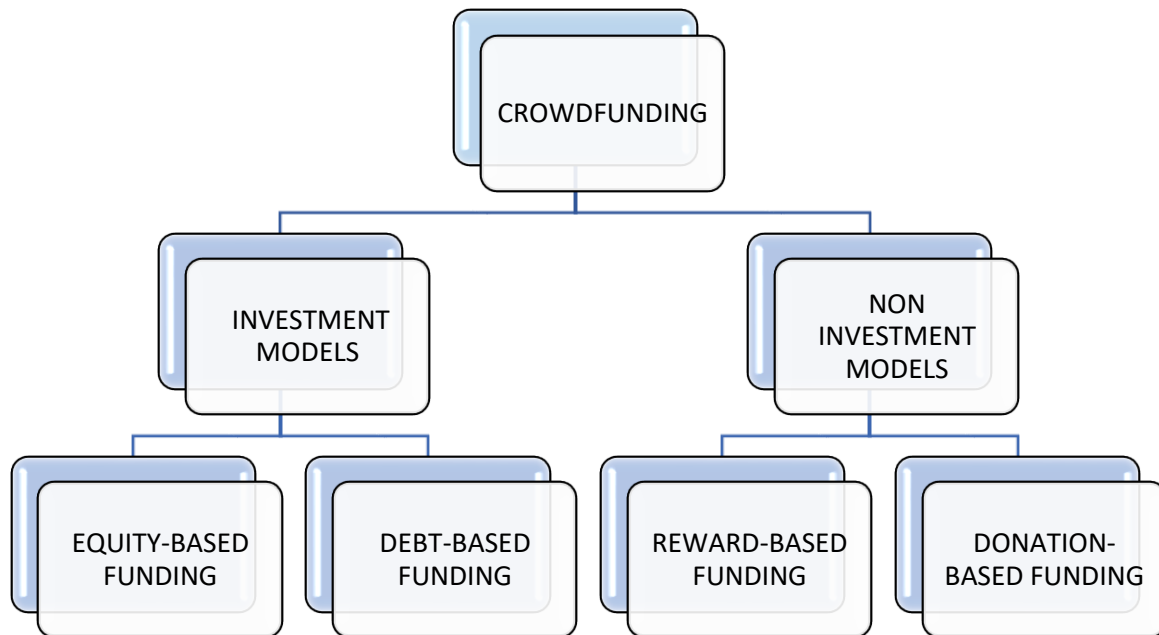


Figure 3 : Types of Crowdfunding

1. Equity-Based Crowdfunding

Equity-Based crowdfunding involves the project initiator to give their investors or capital givers a share of the business, project equity, and a part of their profit (Popescul et al., 2020). It involves the sale of a part of the business that the investors acquire as equity to contribute to the business growth. Equity-based crowdfunding can be compared to selling stocks of a company on the stock market i.e. initial public offering (IPO) or venture capital for start-ups or firms with high potential and growth in exchange for equity (Arnold et al., 2019). The projects typically? funded through this equity-based crowdfunding include technology-based start-ups.

2. Debt- Based Crowdfunding

Debt- Based Crowdfunding involves a fund seeker, project initiator or business loaning money from a large number of people with an agreement to repay this money at a specific time and in addition to other benefits (Popescul et al., 2020). The fund seeker repays all the money they raised during the campaign alongside interest or fees that may have been incurred in the process (Arnold et al., 2019).Other forms of debt-based crowdfunding are

peer to peer lending, debt security crowdfunding, profit-sharing/revenue sharing, hybrid model(Popescul et al., 2020).

3. Reward-Based Crowdfunding

Reward-Based crowdfunding involves exchanging funding from the investors to the fund seekers for non-monetary rewards (Arnold et al., 2019). The fund seekers or project initiators give out non-financial rewards like goods or services to their investors for their financial support towards the project. Some of the projects funded through reward-based crowdfunding include games, music, videos, etc. (Popescul et al., 2020). The reward model motivates participants to donate at different levels for rewards like a product or benefit of interest (Meyskens & Bird, 2015).

4. Donation-Based Crowdfunding

Donation-Based crowdfunding is one of the earliest forms of crowdfunding as it involves the fund seeker presenting their projects online and individuals or groups donating money without any expectation of a return or reimbursement. Thus, fund seekers secure funding without any requirement to return these investments (Arnold et al., 2019). While Popescul et al. (2020) state that this form of crowdfunding involves donating funds by individuals in small sums to support charitable projects. There is no promise of equity or any other form of reward. Some scholars (Frydrych et al., 2014; Popescul et al., 2020; Yen et al., 2018) have stated that this form of crowdfunding is getting popular with charitable organisations as they are mainly aimed at raising funds for social causes and entrepreneurship projects that have a positive benefit and are impactful for others. The donation-based model categorizes the project supporters as philanthropists who do not seek a return for their contributions donations (Mollick, 2014).

2.1.2 Crowdfunding Motivation Framework

In recent years, studies examining the motivations for crowd engagement in crowdfunding have emerged in the literature (Bretschneider & Leimeister, 2017). As different crowdfunders have different motivations, which are mostly determined by the type of crowdfunding and project goals (Kuti & Madarász, 2014). Motivation affects not just an individual's choice, decision, and desire to perform a specific behavior, but also the amount of energy, effort, and perseverance required to finish it (Deci et al., 1991, 2017; Ryan & Deci, 2000). The galvanized motive that affects and guides both the crowd or project investors and project initiators to join in a crowdfunding platform may be defined as motivation in crowdfunding (Bretschneider & Leimeister, 2017; Gerber & Hui, 2013). The psychological and sociological motivations of supporters' choice and actual behaviour to financially contribute to crowdfunding have mostly been studied using social exchange theory (SET) and self-determination theory (SDT) (Bagheri et al., 2019). Individual expectations and the consequences of behaviour are the motives that drive human social behaviour and interactions, according to social exchange theory (Füller, 2010). According to this theory, project supporters participate in the crowdfunding process because they expect particular outcomes and rewards in the form of both

tangible and intangible incentives such as money rewards or products, as well as friendship and social connections (Bagheri et al., 2019).

Scholars have used the SDT to explain the motives for crowdfunding (Deci & Ryan, 2012; Ryan & Deci, 2000, 2002; Schwenbacher & Larralde, 2010). SDT presents intrinsic and extrinsic motives for individuals' participation and performance in a given situation, such as project investors' contributions to crowdfunding. Project investors who are intrinsically driven finance crowdsourcing because it is inherently gratifying and fulfilling to them (e.g., personal interest), and they value contributing to crowdfunding projects because it offers them a sense of satisfaction (Cox et al., 2018; Grant, 2008; Zhang & Chen, 2019). Individual investors are driven by intrinsic reasons, such as supporting a cause or being a part of a community, as well as extrinsic factors, such as rewards, according to Bretschneider & Leimeister, 2017; Gerber & Hui, 2013, which is consistent with Koch's findings (2012). Other research, on the other hand, have argued that individual investors' motivations vary, with some being influenced by the prospect of financial returns, while others being influenced by geographical closeness and personal ties to the project (Fisher et al., 2017; Mollick, 2014).

Extrinsically motivated project investors, on the other hand, participate in crowdfunding to achieve a specific goal as well as to see tangible benefits or outcomes (e.g., monetary rewards) (Cox et al., 2018). Furthermore, additional research (Fisher et al., 2017) has revealed that individual investors are mostly extrinsically driven, placing a higher value on the prospect of financial benefits than intrinsic incentives (Pierrakis, 2019; Vismara, 2016). As a result, both intrinsic and extrinsic factors may influence the decision of a project investor to fund a project, startup, or business. When studying the motivation of project investors, other elements should be examined, such as the different types of crowdsourcing, which range from donation-based to equity-based crowdfunding (Ahlers et al., 2015).

2.1.3 Crowdfunding Platforms

Crowdsourcing campaigns are carried out through crowdfunding platforms. These crowdfunding platforms make use of websites to facilitate engagement and collaboration between project owners and those looking to fund them. As a result, one of the primary purposes of crowdfunding platforms is to connect all of the parties involved, namely the crowd who provide capital and the entrepreneurs who seek capital (Arnold et al., 2019). The opportunity to propose ideas without having to meet or seek funds from private investors has resulted from the ease with which crowdfunding platforms are accessible to a big audience (Rrustemi & Tuchschnid, 2020). Brem et al. (2019) examine the effects of crowdfunding platforms on government policy by demonstrating how the platforms may be utilized to effectively distribute money for creative initiatives while also supporting the undervalued or neglected economic power of investor-users.

Blohm et al. (2016) further mention that crowdfunding platforms provide liquidity and financial resources to markets those traditional financial institutions don't adequately serve. These platforms cater to these markets, providing services such as project marketing, assisting project initiators with client acquisition, and communicating project value to project investors (Ahlers et al., 2015). Hence,

these crowdfunding platforms provide a two-sided marketplace that differs from traditional financial institutions (Gasparro & Monk, 2020). Crowdfunding platforms, according to Haas et al. (2015), continue to rely on traditional financial institutions such as banks and payment service providers. They are responsible for the processing of financial transactions and are an important aspect of the crowdfunding ecosystem (Haas et al., 2015). As a result, banks and payment services will continue to play an important role in the crowdfunding value chain, supporting transaction fee-based business models and account management at the core of the services provided (Belleflamme et al., 2010).

Haas et al. (2015) described crowdfunding's reliance on trusted third parties as demonstrated in Figure 4 below, which shows the breakdown of the crowdfunding service ecosystem. The crowdfunding ecosystem is made up of the crowdfunding platform, which is identified as a crowdfunding partner, capital seekers, capital seekers, and banks, all of whom make up the network partners while demonstrating how they are all interconnected with each other. The ecosystem's services is divided into two categories by the researchers: traditional and disruptive services. Crowdfunding platforms' disruptive services are further divided into crowd-related services such as crowd activation, customer and funding-related services such as matchmaking, contracts & compliance, and risk scoring. Traditional services consists of IT operations, payment, dunning & debt collection, banking and authentication(Haas et al., 2015). They investigated the structure and operations of the crowdfunding services available, concluding that the internet is critical in enabling traditional financial service intermediation to be combined with matchmaking services. The authors do note, however, that these services are in addition to the transaction fees imposed to capital givers and capital seekers during the crowdfunding process. More research into the most successful design of crowdfunding platforms suitable for various enterprises, particularly social businesses, may be required. Financial intermediaries, according to Funk et al. (2011), are no longer required for mediation but remain part of the value chain as required by law for operations (Koch, 2012)

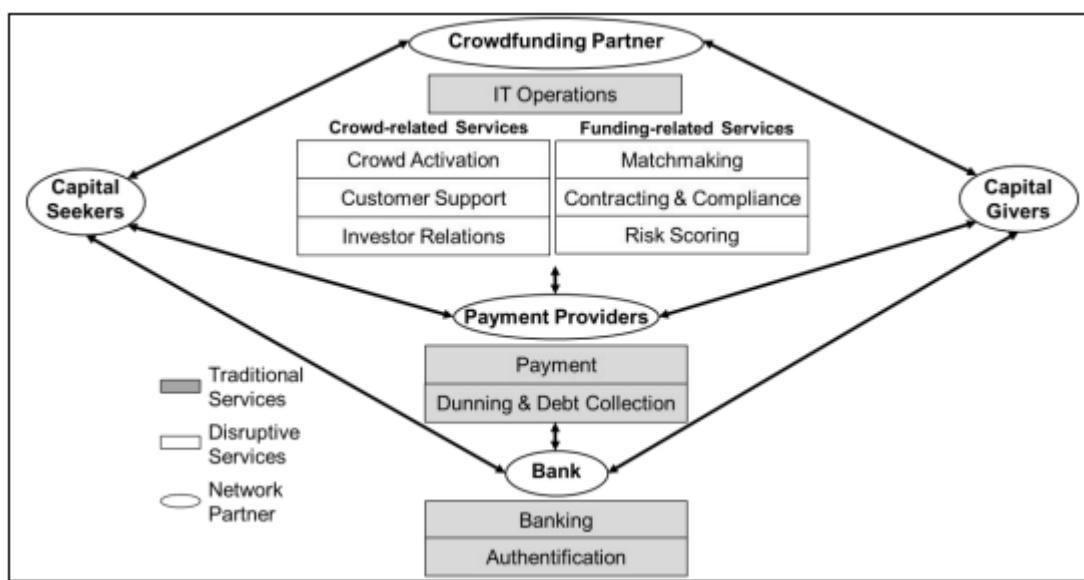


Figure 4: Crowdfunding Service Ecosystem (Haas et al, 2015)

The biggest crowdsourcing platforms utilized to attract investors and create financial resources are shown in Figure 5. In analyzing the crowdfunding models according to the different types of crowdfunding, starting with reward-based crowdfunding, Kickstarter is a benefit-profit corporation that considers the impact of its business activities on society, including shareholders and profit-making. With a mission statement of helping to bring creative projects to life, Kickstarter is a benefit-profit corporation that considers the impact of its business activities on society, including shareholders and profit-making. Kickstarter enables new product creators to promote their ideas through a 30-day online campaign, receiving financing in the form of donations in exchange for rewards and the opportunity to purchase the products once they are available on the market. In all, \$6,339,574,789 has been pledged to projects on Kickstarter, with 547,199 projects launched, 215,027 successfully funded projects, and 330,104 unsuccessfully financed projects. Kickstarter uses an all-or-nothing crowdfunding model, in which the project's patrons' credit cards are only charged when the campaign exceeds its target. This has resulted in a success rate of approximately 39.41% (Kickstarter, 2022; Popescul et al., 2020).

The Indiegogo crowdfunding platform, which focuses on technology and design, is another reward-based crowdfunding model that allows investors to assist entrepreneurs and new technology with money from the first stages of development. In contrast to Kickstarter's all-or-nothing concept through a 60-day campaign, Indiegogo thinks that "all help matters." As a thank you for donating to their efforts, many of their campaigns give "Perks" in the shape of products, acknowledgement, services, or events to their backers. Indiegogo takes a 5% platform fee plus a 3.2 processing fee on all funds raised by the campaign. Indiegogo has 235 countries covered, with a total of \$1 billion raised across all projects (Indiegogo, 2022; Popescul et al., 2020). Campaigns on the Patreon crowdfunding platform are likewise classified as reward-based crowdfunding for creators. The site offers a monthly subscription-based model to empower businesses and raise funds, in exchange for patrons receiving special access and additional content. Patreon has over 200,000 creators on its site, with over £2 billion in payments sent to them since 2013, and over 6 million monthly active patrons. For creators, the platforms provide three plans: Lite, Pro, and Premium, with 5%, 8%, and 12% off the monthly cash produced for platform fees, respectively. This is in addition to the flexible payment processing fees, which are charged at a standard rate of 3.4 percent + £0.35 per successful payment over £3 and a micropayment rate of 5% + £0.15 per successful payment less than £3, both of which are adjusted according to tier pricing and patron's currency (Patreon, 2022; Regner, 2021).

Others crowdfunding platform like CircleUp, an equity-based crowdfunding platform whose purpose is to provide entrepreneurs with the capital and support they need to create successful businesses. Helio is a platform element that leverages data and machine learning technology for brand data insights to assist private firms with improved decision-making, with over 2.4 million brands tracked. For a project to be launched on CircleUp, the entrepreneur must have a revenue of \$1 million to \$20 million and growing equity. Since CircleUp's start in 2012, over 500 firms have received funding, and the number is continually growing (CircleUp, 2022). Crowd'in and Bolero are Belgian crowdfunding platforms. Crowd'in was founded in 2015 as a sort of project co-financing in which the public engages with government agencies in the cultural sector to fund projects. The crowd's

contribution is supported by finances from the government, which are used to fund commercial, cultural, and social projects that promote social and economic development. Crowd'in has evolved into a platform that enables a hybrid style of crowdfunding by providing project initiators and investors with both financial and non-financial options. Crowd'in's platforms support both donation-based (with or without pay) and equity-based crowdfunding. Supporting project initiators in their start-up, launch, and development stages, as well as project investors in diversifying their investment portfolios or promoting creative ideas, are among the platform offerings (Crowd'in, n.d.) Bolero, on the other hand, is a platform for equity-based crowdfunding. Their platform connects Belgian entrepreneurs looking for finance with investors looking for fresh investment options in high-growth firms. The project's financial contributions are exchanged for stocks or bonds in these companies (Bolero Crowdfunding, n.d.) The site has 45,048 members and 40,03 million euros invested in 84 crowdfunding deals. JD is likewise a Chinese equity-based concept (Popescul et al., 2020).

The donation-based crowdsourcing paradigm is represented by GoFundMe. The platform facilitates fundraising for medical, emergency, education, memorial, charity, and, most recently, coronavirus-related causes. To date, more than £10 billion has been raised to assist these efforts. A 5% platform fee, a 1.4 percent transaction fee, and €0,25 per gift, excluding any relevant VAT costs, are included in GoFundMe fees (GoFundMe, 2022). Debt-based crowdfunding models, on the other side, include Kiva and Puddle. With a start in 2005, Kiva was one of the first crowdfunding platforms. Kiva is based in San Francisco, California, and works in over 80 countries across five continents. Kiva provides funding to entrepreneurs through a network of 293 field partners, which include microfinance institutions and trustees that assist in the matching of borrowers with lenders. The field partners assist with loan screening, posting loan requests, disbursement, and repayment collection, while the trustees support loans and vouch for borrowers who wish to apply for loans directly from Kiva. Kiva had given loans worth \$1.71 billion to 4.3 million borrowers through 2.1 million lenders in 76 countries as of March 2022, with a 96.4 percent repayment rate (Kiva, 2022; Meyskens & Bird, 2015). Kiva's mission is to improve the quality and affordability of financial services in order to help individuals overcome financial barriers. Kiva typically borrows for business purposes, but also for student tuition, medical expenses, and other personal reasons. Puddle is a crowdfunding site that also operates on a debt-based business strategy. Puddle is aimed at consumers who don't qualify for a typical bank loan but want a simpler and less expensive option to borrow money. To be eligible for a puddle loan, the borrower must have a Facebook account and a bank account in the United States, which allows them to join a puddle and contribute money. They can borrow five times their contribution, with a repayment period of 3-6 months and an interest rate ranging from 5% to 8%. Puddle also develops a sense of community by allowing people to donate to a "puddle" in which they share a shared interest with others who are looking for money (Meyskens & Bird, 2015).

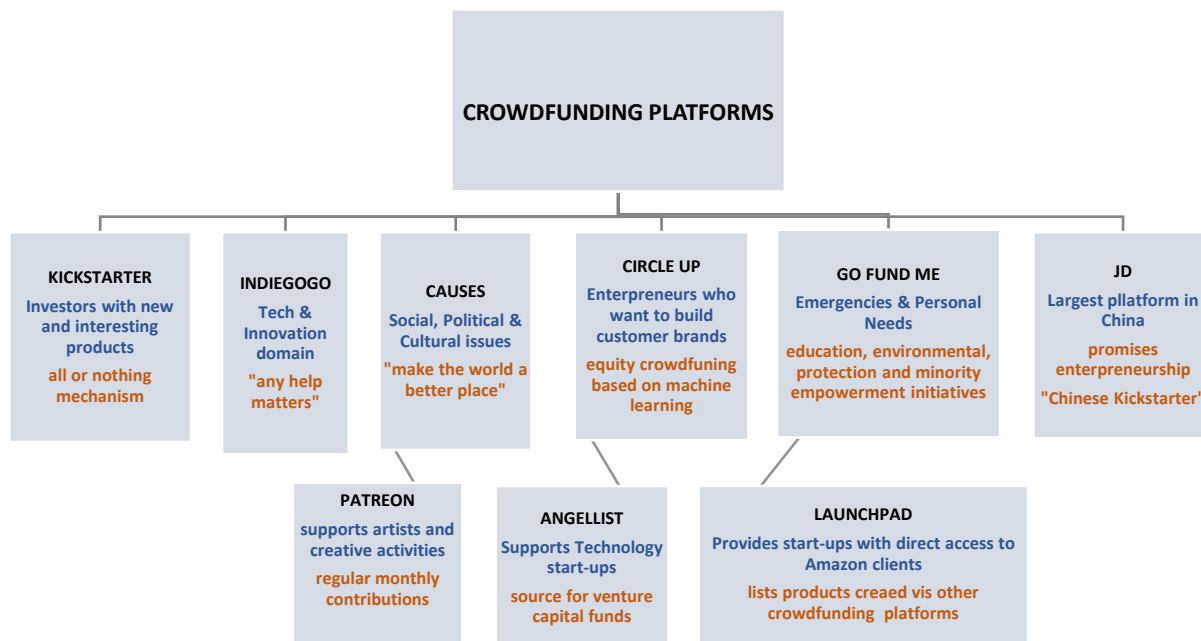


Figure 5: Examples of Crowdfunding Platforms (Popescul et al, 2020)

2.1.4 Crowdfunding Campaign

The fundraising process is frequently referred to as a campaign, which is like a project in that it entails a series of activities aimed at reaching a set of objectives. For example, in this case, the project initiator or campaign developer has to raise funds to actualize the project, such as a new product or service. In the crowdfunding process, there are three main participants: (1) the project initiator or capital seeker who is seeking funds for a project or business, (2) the crowd made up of potential investors who will provide the investment needs, and (3) the crowdfunding platform which will allow the project initiators and their investors to interact, granting them access to information about the status of the crowdfunding campaign and the progress of the project (Popescul et al., 2020).

Some academics have looked at what constitutes a successful crowdfunding campaign. The performance of planned fundraising can be described as the success of a crowdfunding campaign according to Schweizer et al. (2018). When the money raised during the crowdfunding exceeds the target amount, the project is considered successful (Dikaputra et al., 2019). As a result, it's critical to figure out what's driving the success of crowdfunding initiatives. Previous research has looked at how certain project qualities or criteria influence the success of a crowdfunding campaign. According to a study, the success factors of a crowdfunding campaign are a collection of interwoven driving forces (principal elements) that can be classified into four categories: "platform characteristics, campaign characteristics, communication efforts, and investment (only for equity and lending)" (European Commission. Directorate-General for the Information Society and Media. & SpaceTec Capital Partners GmbH., 2014). Financing objectives or goals, pre-valuation, project supporters' sophistication, funding progress, herding, and stock market volatility are all campaign elements that have a big impact (Hornuf & Schwienbacher, 2017). The herd behavior can be seen when selecting

whether to invest in a project, project backers often follow the crowd rather than their own analyses. Most projects, particularly those combining debt- and equity-based crowdfunding, are still in the early phases and are just an idea, thus the quality of the anticipated outcome isn't immediately apparent. As a result, herding could play a crucial role in determining the success of a crowdfunding campaign in this setting.

Vismara (2018) in studying the determinants of a successful crowdfunding campaign, communication given out plays a critical role in the dynamics among individual investors in investment-based crowdfunding. Communication with platform users and visitors, as well as updates on project descriptions, are all part of the effort (J. Block et al., 2018) Due to a lack of knowledge or insufficiency between project funders and entrepreneurs, crowdfunding platforms provide information about the entrepreneurs' reputations, which serves as a key signal to these funders (Yang et al., 2016). Furthermore, information provided by entrepreneurs, such as detailed plans, financial roadmaps, and risk information, will aid in the crowdfunding's success and the acquisition of necessary funds (Ahlers et al., 2015), Yum et al. [2012] also discovered that the amount of information offered to project capital providers affects herding effects. If enough information about the projects is available, they tend to make financing decisions based on project information rather than earlier project funders' assessments.

The platforms characteristics equally plays a key role in determining the success of a crowdfunding campaign as platform helps to reduce information asymmetry and the willingness to participate in a crowdfunding campaign is driven more by trust in the platform than by trust in the fundraiser. The investment (size), which refers to the amount of money asked from project investors by the project initiators, could have an impact on the crowdfunding campaign's success. (Mollick, 2014)

These success elements for a crowdfunding campaign, according to Chen et al. (2020), can be divided into two categories: static and dynamic components. Static factors, such as the entrepreneurs' financing goals, social capital, and project description, are stable or remain unchanged during the crowdfunding campaign. The dynamic factors, on the other hand, are those that are subject to change as the crowdfunding campaign progresses, and these aspects include finance performance, project popularity, and public reaction to the project (Chen et al., 2020). Entrepreneurs that have previously coordinated successful projects, presented complete project information execution plans, and done acceptable risk assessments have been demonstrated to boost their financing prospects by other researchers (Ahlers et al., 2015; Koning & Model, 2014)

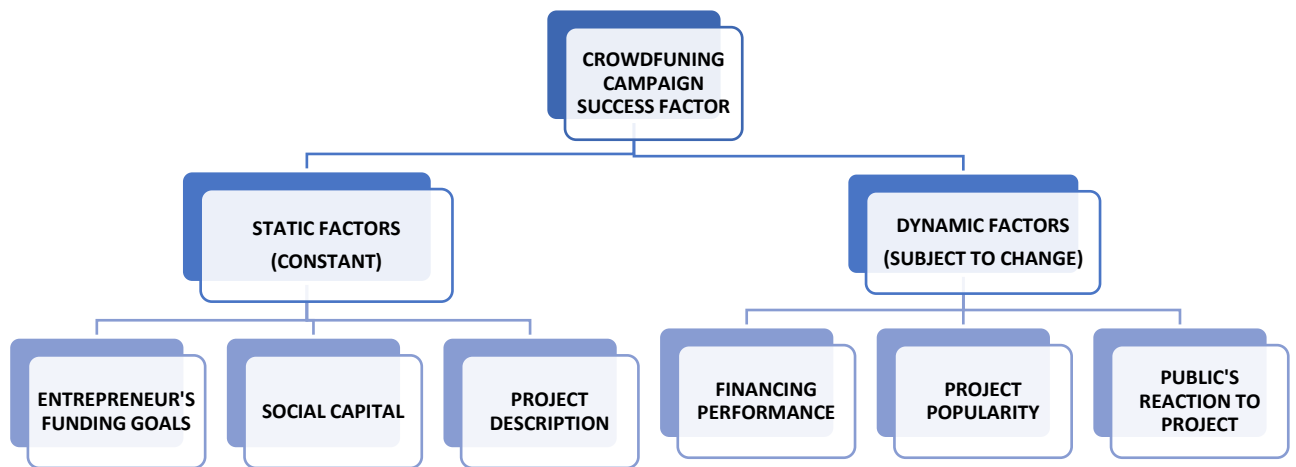


Figure 6 : Crowdfunding Campaign Success Factors

Oculus VR, a technological start-up based in the United States, has one of the most successful crowdfunding campaigns. In April 2012, the business announced a virtual reality (VR) headset and followed up with a Kickstarter campaign. The campaign was a success, raising \$2.4 million in funds and exceeding the \$250,000 objective by a factor of ten (Kickstarter, 2012). Six weeks after the campaign ended, Oculus began shipping the VR headgear. The project was widely publicized, not only among developers but also among the public. Subsequently, major technological companies have expressed interest in Oculus' virtual reality technology. Oculus was eventually purchased by Facebook two years after the Kickstarter campaign ended (Arnold et al., 2019).

2.2 Distributed ledger Technology and Blockchain

Blockchain technology is a digital, distributed ledger that records transactions with all network nodes having a copy of the ledger that ensures that no one has singular authority to update it (Adhami et al., 2018). The distributed ledger is a file containing distributed records of transactions managed by universal agreement among a network of peer to peer nodes (Kuhn et al., 2019). Blockchain technology relies on a concept called hashing which is a cryptographic system that converts text of any random length into an irreversible fixed length of numbers and letters in theory also called the "hash" that guarantees, security, accuracy and immutability of the transaction registrations (Adhami et al., 2018). Blockchain technology capitalizes on the principle of a distributed ledger that ensures that the distributed network retains accuracy or precision irrespective of any node being compromised (Schweizer et al., 2018). One of the most important foundations of blockchain technology is decentralization. The blockchain technology cannot be owned by any single computer or entity but rather, the nodes connect to the chain through the distributed ledger. Any type of

electronic equipment that saves copies of the blockchain and keeps the network running is referred to as a node.

The bitcoin system, invented by Satoshi Nakamoto, is regarded the first example of a blockchain. He outlined the principles of a "peer-to-peer electronic cash system" in a whitepaper. In outlining the principles of Bitcoin, Nakamoto points out that, prior to Bitcoin, electronic payment systems were always reliant on trusted third parties i.e., financial intermediaries to ensure that digital transactions were not duplicated, a problem known as the "double-spend" problem. The Bitcoin system is then presented as a solution to the double-spend problem, by utilizing cryptographic signatures rather than trust thereby eliminating the need for a trusted 3rd party intermediary (Nakamoto, 2008; Prpić, 2017). Within the bitcoin system, Nakamoto defined "an electronic coin as a chain of digital signatures" as seen in the figure 6 below (Nakamoto, 2008) that are joined together by blocks. These blocks are created through a process of verifying each signature by miners. These miners are not third parties but peers as they contribute to the blockchain ecosystem. The first transaction in a block in principle is a special transaction that begins a new currency held by the block's creator (Nakamoto, 2008). On the completion of each block, the bitcoin system rewards miners with bitcoins and adds a new block to a historical chain of blocks that consists of every block every completed in the system (Prpić, 2017; Romano & Schmid, 2017).

According to Wood. (2014), transactions are grouped into blocks, which are then chained together using a cryptographic hash as a point of reference (Wood, 2014). As a result, this historical chain of blocks, which includes all transactions, is referred to as a blockchain (Romano & Schmid, 2017). The method by which a transaction enters the blockchain, as shown in figure 7 below, begins with a seller submitting a transaction, after which a block representing the transaction is generated. The block is broadcast to every node linked to the blockchain network, where miners confirm the transaction using cryptographic techniques. The miners are motivated by the cryptocurrency that is generated and awarded for proof of work. The transaction is completed when the block with the transaction information is added to the blockchain, the update is spread over the blockchain network, and the transaction is complete, indicating that the assets have been transferred to the receiving party (Angraal et al., 2017; Euromoney Learning, 2020).

How does a transaction get into the blockchain?

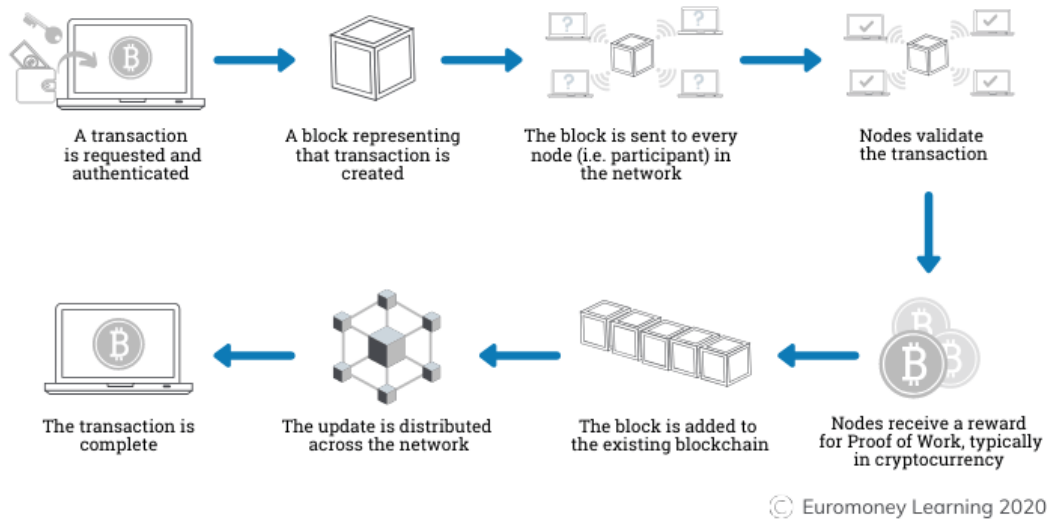


Figure 7 : How transaction enters a blockchain (Euromoney Learning, 2020)

Within the blockchain technology, the process in which a block is added to an existing blockchain is further shown in the figure below. Each block has an effect on the next block through cryptographic hashing which is a very important aspect of a blockchain, as it creates a distinctive secure code that is unique to the current block and is created using the hash of the previous block. Since each block is linked securely to the preceding block using cryptographic hash including a timestamp, the time stamp validates the data existence, each time stamp also includes the previous time stamp in its hash establishing a chain with each new time stamp strengthening the one before it. This prevents harmful changes from being made to the blockchain. This irreversibility or immutability is a key quality of blockchain (Angraal et al., 2017; Nakamoto, 2008)

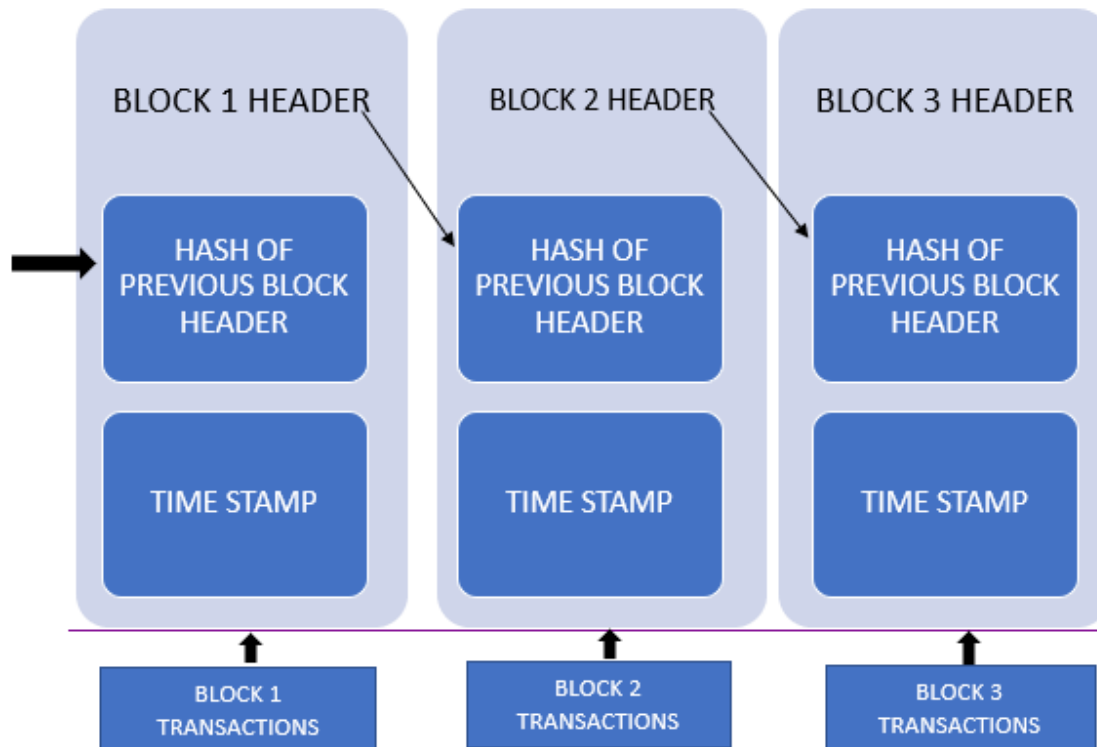


Figure 8 : Diagram of a Blockchain

Therefore, the bitcoin blockchain enables peer-to-peer transactions in a public distributed ledger, as well as a distributed public issuance and transaction verification system that displays the history of time-stamped transactions in a sequential block (Nakamoto, 2008; Romano & Schmid, 2017). The sender's address, the recipients, both of whom are referred to as wallets, and the transactional unit are the three main components of a blockchain transaction. It is crucial that the transactional units are known to the blockchain with a timestamp that proves the transaction exists and publicly announced i.e shared and made available to all the network peers which prevents the double spending problem and ensure proof of ownership. The benefit of this is that enables parties to transact without going through a financial institutions or centralised authority (Nakamoto, 2008). Decentralized nodes are motivated to validate (keep a record of) the blockchain through a process called mining, which replaces the centralised authority(staking for proof of stake blockchains)(Schweizer et al., 2018). The blockchain technology facilitates business models that are not sustainable using the traditional financing mechanisms as it displaces intermediaries, offering lower transaction charges while retaining shorter transaction time (Schweizer et al., 2018).

Schlatt et al.2016 identified several fundamental properties of blockchain systems, including (1) data redundancy, which is achieved through the storing of data in databases and aids in data and transaction recovery, as well as backup. (2) the use of encryption ensures data security and integrity (3) a unified algorithm for network peer transaction management (4) decentralization for direct peer-to-peer transactions (5) network activity verification, accountability, and transparency (Schlatt et al., 2016). In conclusion, blockchain technology is a decentralized transaction and data management platform that enables or encourages data sharing among network participants (Xu et al., 2017; Yli-Huumo et al., 2016).

According to Gupta (2017), blockchain technology could be a viable option because it eliminates the need for intermediaries and provides benefits on par with traditional financial institutions. According to the author, technological advancements may result in decreased transaction costs in the electronic market. Nonetheless, for transaction settlement, an intermediary would be required, some authors claim that blockchain technology is a digital platform enabler that also serves as a vehicle for decentralization of intermediary services and trust-free payments (Glaser, 2017; Lauslahti et al., 2017; Peters & Panayi, 2015).

2.3 Initial Coin Offerings

Adhami et al. (2018) define an initial coin offering as “an open call for funding promoted by organizations, companies, and entrepreneurs to raise money in exchange for a “token” that can be sold on the internet or used in the future to obtain products, services or at times profits” (Adhami et al., 2018) . An Initial coin offering (ICOs), also classified as a token sale is a process in which financing is raised from investors from the emission of cryptocurrencies units of coins or tokens in exchange for fiat currency or other digital currencies at a pre-determined exchange rate (Kaal & Dell’Erba, 2017). The tokens are issued by the ICO organizers using a distributed ledger in the form of a cryptocurrency. As a result, these tokens are used to raise funds for the project initiatives through online sales.

In an initial coin offering, a start-up issues a token that token owners can use to purchase proprietary rights or service rights. The tokens represent a fraction of the initial supply in a new digital project which represents a fraction of a digital bitcoin-like cryptocurrency (Kaal & Dell’Erba, 2017). The token owner can use the token’s features like discounts on cryptocurrency before being listed on the exchange once the ICO is launched, a stake in the company, and voting rights on future decisions (Kaal & Dell’Erba, 2017). These tokens or cryptocurrencies could also serve as a form of payment (Rustemi & Tuchschnid, 2020). While they are no general acceptable classification of tokens, some authors have categorized these tokens according to their functions including payment or currency tokens, utility tokens and security tokens (Ante et al., 2018; Czaja & Röder, 2021; Finma, 2018; Sazandrishvili, 2020).

Utility tokens signifies that the token holders is given or entitled to utilities such as consumptive rights or future access to the ICO projects products and service (Czaja & Röder, 2021; Howell et al., 2020). Only token holders may typically utilize the ICO project's future products or services, however if the basic aspects of the services are available to everyone, some premium features of the services are made available only to token holders (Czaja & Röder, 2021; Gan et al., 2021). Utility tokens represents the most used token format. Token holders must have a project-specific token in order to use the project's products or services. The project coins are created and sold to investors during the ICO process. These Utility tokens, on the other hand, do not provide token holders or investors equity rights, allowing project creators to obtain money while maintaining complete control over their business. Utility tokens ICOs can also be compared to crowdfunding products presale on crowdfunding platforms (Howell et al., 2020).

Payment or currency tokens, on the other hand, function as a medium of exchange or a store of value. These tokens are often referred to as digital currencies or coins (Howell et al., 2020). In contrast, security tokens are similar to shares or bonds as they may represent a stake in the ICO project or enable the token holders to make a claim on the ICO project future cash flows (Czaja & Röder, 2021). They could be termed as equity tokens (Gan et al., 2021), as security tokens may allow investors to participate in profit sharing. Nevertheless security token sales are not quite as common as utility tokens as they need far more legal work and preparation, and most cryptocurrency exchanges lack the necessary securities trading licenses, while regulated stock exchanges are unable to handle tokens at this time (Ante et al., 2018). Nevertheless as ICOs are mainly used during the start-up stages, the project investors anticipate a rise in the value of the tokens, assuming that demand for the tokens would rise due to the fixed or restricted quantity (Ante et al., 2018).

Chohan (2017) describes the possibilities ICOs offer cryptocurrency start-ups in raising financing quicker and easier (Chohan, 2017). ICOs provide financial resources to start-ups overcoming finance needs by direct financing from cryptocurrency investors and their community for their projects or initiatives (Kaal & Dell'Erba, 2017). In other words, ICOs are a capital financing mechanism that relies on distributed ledger technology that ensures anonymity and security of transactions without the need for a central administrator (Adhami et al., 2018; Rustemi & Tuchschnid, 2020). The technology behind distributed ledger offers security as each device that is a member of the blockchain saves a copy of the ledger independently, thereby making sure that the balanced cryptography network is highly secure, which is an essential feature for the digital transfer of assets and value between individuals (Rustemi & Tuchschnid, 2020). Therefore, the use of blockchain technology guarantees transaction security and allows direct transactions between individuals that ensures these transactions are publicly shared, collected, and verified by creating an unalterable record of these transactions through public-key cryptocurrency signatures in a digital ledger (Prpić, 2017).

Some scholars believe there is a link between the advancement of economic globalization and the growth of cryptocurrencies (Pieters, 2016; Rustemi & Tuchschnid, 2020). The concept of a borderless economy is becoming more plausible, thanks in part to blockchain technology and tokenization. The movement of capital is getting more internationalized as the world becomes more connected through varied networks (Pieters, 2016; Rustemi & Tuchschnid, 2020). The advent of ICOs as a source of financing has had a disruptive influence on finance, affecting established traditional financial institutions, venture capitalists, and start-ups. ICOs outperformed venture capitalist finance, which had previously played a large role in supporting innovative start-ups (Kaal & Dell'Erba, 2017), due to their disruption and exponential development. For the first time, blockchain innovators received more money through initial coin offerings than through venture capital investments in 2017. ICOs raised a total of \$327 million, exceeding the \$295 million raised through venture capital fundraising (Coindesk, 2017). Consequently, blockchain technology is the underlying technology behind conducting an ICO by project initiators for financing i.e., capital formation. Majority of technology start-ups generate tokens through blockchain and sell them in exchange for fiat currencies or other major cryptocurrencies like Bitcoin and Ethereum (Roosenboom et al., 2020).

2.4 The ICO Process

The Invention of ICOs dates back to 2012 when J.R Willet published The Second Bitcoin Whitepaper and launched the first ICO in 2013 for his project Omni which was initially called the MasterCoin protocol by publishing a whitepaper and Bitcoin address. The concept was that "the existing bitcoin network can be used as a protocol layer, on top of which new currency layers with new rules can be built without changing the foundation" (Willet J.R, 2012). A year later, Ethereum was launched, and it has since become the most essential and major platform for ICOs. Ethereum was funded through a crowd sale, which is a type of crowdfunding in which cryptocurrencies are exchanged for ICO tokens. In 2017, Ethereum-based ERC-20 tokens accounted for around 57% of ICOs, while custom-built blockchains accounted for 30%. (Darko, 2017). The ERC-20 is a standard that governs how Ethereum-based tokens are implemented, allowing multiple apps to interface with the ICO token. The various cryptocurrency exchanges and wallets are among the interacting tokens. The ERC-20 standard has a number of advantages, including ease of implementation; investors have access to the Ethereum infrastructure, and ICO coins can be saved in Ethereum wallets (Arnold et al., 2019).

As most cryptocurrency exchanges support the Ethereum token and ERC-20 standard, the risk to investors is lower, especially for ICO coin that cannot be traded on all token exchange platforms. A feature of the Ethereum blockchain that has made it one of the popular exchange platforms for ICOs is the smart contract feature that enables it to automatically receive tokens from other wallets and the number of tokens that can be transferred. The rules of smart contracts are set by the programmer who stores the contract on the blockchain, making it immutable and enabling its same execution for all network participants. A key benefit of a smart contract is that it allows participation without further verification, credit cards, and email address. At the time of Ethereum's crowd sale, 1 bitcoin was exchanged for 2000 Ether in 16 exchanges, and as of March 2018, the bitcoin sent in 2014 worth \$600 was equivalent to 2000 Ether worth \$1.4million(Arnold et al., 2019).

The process of launching an ICO has been studied by a number of authors. According to Arnold et al. (2019), as seen in the figure 9 below which illustrates the initial coin offering process an ICO process starts with choosing a platform that can take two forms. To begin, the company can develop a customized blockchain platform in which the native coin serves as represents the issued coin. The biggest benefit of having your own platform is that it allows you to be more flexible with your ICO's infrastructure. Small and medium-sized businesses, on the other hand, face a significant challenge in deploying the protocol and attracting miners. Also, the company can take advantage of existing infrastructure. As a result, most ICOs are held on existing infrastructure, such as the Ethereum Network, which is one of the most popular networks, and take advantage of Ethereum's ability to build smart contracts and tokens. While this method simplifies the process of conducting an ICO and helps overcome constraints associated with the use of a custom-based platform, the ICO is constrained by the primary infrastructure.

The next step, according to the authors for the start-ups, is to produce a white paper. This white paper contains information about the proposed ICO, such as the business plan, revenue sources, business partners, and prior business experience, which must be made available to investors and the general public. The material in an ICO's white paper can be compared to the information shared with project investors during a crowdfunding campaign on a crowdfunding platform. According to

Adhami et al. (2018), the white paper, also known as the token sale term, provides information on IT protocols, token price, supply, public blockchain distribution method, and specifics on the proposed business, including a description of the team. It resembles the prospectus distributed to investors during an initial public offering (IPO) or the documents distributed during an equity crowdfunding campaign (Schweizer et al., 2018). Therefore, white papers can be an effective marketing tool for persuading investors (Zhang et al., 2019). Following the publication of the white paper, the ICO promoters use online channels such as social media and ICO information channels to advertise their projects. The first social media presence begins off the marketing campaign, which lasts until the completion of the token sale, with marketing activities including as photos, project updates, and videos to raise interest and connect with investors (Arnold et al., 2019; Czaja & Röder, 2021).

The following step is a pre-sale or pre-ICO, which a company can do before releasing the token to the general public. Pre-ICO sales are frequently utilized to fund various costs, such as marketing and pre-sale expenses. Hedge funds and venture capital firms are offered these tokens at a discount, often known as bonuses, to reputable investors. Inspiring this group of investors to join in the pre-ICO might be interpreted as a vote of confidence from potential investors. Favourable discussion about the project and positive signals to potential investors are only a few of the advantages of a pre-sale, as are creating trust and providing legitimacy to the idea. However, other authors suggest that if an ICO requires a pre-ICO to cover these costs and gain more investor support, it may indicate a significant level of risk in the project's viability. There's also the possibility that after it's launched, these big investors will sell their tokens to maximize profits at the expense of smaller investors (Arnold et al., 2019; Schweizer et al., 2018) The public ICO is the final step in the ICO process, in which investors can buy tokens to participate in the project at a set date. Most token sales have a cap, meaning that only a certain number of tokens are distributed (Arnold et al., 2019).

Tokens therefore represent entries on a blockchain. The ICO creators determine the token amount, value, and other terms, such as the advantages of participating in a pre-ICO sale (Czaja & Röder, 2021). The tokens are then auctioned by the ICO organizers over a set ICO timeframe. Smart contracts make it possible to carry out all of the terms and conditions, including the token sale. When ICO project investors transfer money to the ICO project's digital address, which is a blockchain node, smart contracts ensure that they receive the tokens immediately and according to pre-determined terms and conditions. All transactional data is saved in the underlying blockchain, as previously indicated (Czaja & Röder, 2021).



Figure 9: the initial coin process (Arnold et al., 2019).

2.5 Initial Coin Offerings and Crowdfunding

2.5.1 Similarities between Initial Coin Offerings and Crowdfunding

Initial coin offerings (ICOs) and crowdfunding are similar in that they both use an open call on the internet to raise funds from a crowd of investors (Adhami et al., 2018; Fisch et al., 2021). The issuance of utility tokens can be considered a kind of reward-based crowdfunding, whereas the issuance of security tokens can be considered a form of equity-based crowdfunding (Ahlers et al., 2015; Czaja & Röder, 2021) Another similarity between ICOs and crowdfunding is that both use the internet as a means of communication and payment, allowing investors to invest from all over the world. In exchange for their donations, project investors receive something, such as a token or equity in a business (Adhami et al., 2018).

Due to this, initial coin offerings can be thought of as a hybrid of blockchain technology and crowdfunding. The bitcoin model for crowdfunding, as described by Ravikant (2014), is a novel business model for open-source software that allows participants of a blockchain protocol to anonymously engage in fundraising, development, and revenue through the usage of tokens. ICOs, on the other hand, take advantage of some of the flaws in the traditional fundraising process, which is skewed in favour of intermediaries and meant to reduce risk by bringing equality to the project (Arnold et al., 2019). The table below compares initial coin offerings and crowdsourcing.

2.5.2 Differences between Initial Coin Offering and Crowdfunding

Initial Coin Offerings	Crowdfunding
<ul style="list-style-type: none"> Decentralisation (Haas et al., 2015; Schweizer et al., 2018) 	Third party intermediaries
<ul style="list-style-type: none"> Direct interactions via Peer to peer framework (Haas et al., 2015; Schweizer et al., 2018) 	Direct Intermediaries between project initiators and investors
<ul style="list-style-type: none"> Lower transaction costs (Schweizer et al., 2018) 	Higher transactions costs

<ul style="list-style-type: none"> • ICOs offer anonymity for investors (Haas et al., 2015) 	Crowdfunding put identification and authentication processes in place
<ul style="list-style-type: none"> • ICOs are not listed on platforms (however some websites provide information and advice)(J. H. Block et al., 2021) 	Projects are listed on platforms and provide information about investment
<ul style="list-style-type: none"> • No provision of match making and clearing services(J. H. Block et al., 2021; Haas et al., 2015) 	Provision of match- making and clearing services
<ul style="list-style-type: none"> • Websites do not aim to ensure a level of quality or as a custodian(Belleflamme et al., 2014; J. H. Block et al., 2021) 	Platforms help to maintain defined level of quality and reduce information asymmetry
<ul style="list-style-type: none"> • No platform to screen or vet project and any form of due diligence is done by individual investors (J. H. Block et al., 2021) 	Projects are subject to screening and due diligence is performed before selection by the crowdfunding platforms

Table 1: Differences between ICOs and Crowdfunding

2.6 Benefits and Challenges of ICOs

ICOs have become highly popular because they provide investors and technology start-ups with benefits that are not available in traditional crowdfunding venues. Start-ups, on the one hand, may profit from the anonymous, decentralized, and participatory character of ICOs, which allows them to collect funds anonymously from all over the world while allowing shareholders to participate in every decision made under the terms of their investment. The ICO offers the project access to a large investor base due to less geographical barriers or restrictions (Gan et al., 2021). Furthermore, enterprises that self-fund through ICOs avoid working with international investment banks, financial service providers, or crowdfunding platforms, allowing them to control the regulations of their ICO and avoid the costs charged by the intermediaries previously stated. Furthermore, ICOs provide project creators and investors with the opportunity to reap significant financial rewards from possible token appreciation (Gan et al., 2021). ICOs offer faster and easier execution of company concepts since ICO tokens generally have secondary market liquidity and involve less bureaucratic formalities than traditional capital-raising activities (Gan et al., 2021).

More risks can be recognized as the ICO market develops. The most important point is that companies that issue tokens do not have a viable product or provide an intangible service. Token investors tend to invest in the future potential of the idea tied to the ICO's platform and the associated promises because ICOs are mostly utilized for start-ups' early financing. While this may work effectively with infrastructures like the Ethereum network, other token platforms struggle to deliver on their promises (Kaal & Dell'Erba, 2017). Another risk associated with investing in an ICO's token, such as the security token, which represents a share of the ICO's project or a claim on future

earnings of the project, is the project-sharing structure, which is not backed by any laws, making it difficult for investors to make a legal claim (Czaja & Röder, 2021). The existence of information asymmetry between the project Initiator and investor about the token's price potential results in a high level of token volatility. Another issue that investors confront is the difficulty of raising more funds after the initial funding because an ICO is a one-time event with a fixed market cap. This diminishes the amount of money available for more R&D and production projects because project creators can only raise money by issuing more tokens, which lowers the value of tokens already owned by other investors (Arnold et al., 2019).

2.7 Government regulation, Legal framework, and policies on ICOs

The advent of initial coin offerings (ICOs) and their financial success around the world is a contentious topic among scholars, investors, entrepreneurs, and regulatory agencies (Adhami et al., 2018). ICOs have shown to be a cost-effective and methodical way for businesses and entrepreneurs to raise funds for projects or company concepts. ICOs have reached this degree of efficiency by lowering transaction costs and streamlining the financing process while eliminating the need for banks as intermediaries (Kaal & Dell'Erba, 2017). However, there are issues about ICO quality, increased numbers of misuse, government apprehensions, and unease, all of which have led to an increase in demand for government participation and regulation of the business (Kaal & Dell'Erba, 2017). Entrepreneurs and their development teams can get around restrictions that generally apply to corporations, with investors taking big risks because their money isn't well protected (Adhami et al., 2018). Investors are exposed to more risk due to a lack of regulation. Non-professional investors face greater investment risk because they lack the information, resources, capability, and incentive to do due diligence prior to deciding to invest (Fisch et al., 2021).

2.7.1 Legal Framework

There are still arguments about the classification of the ICO and the recognition of the currencies created under national regulations. Many nations are still debating and undecided on how to classify ICOs and their tokens, leaving regulatory agencies with unanswered problems. Some regulatory bodies classify them as digital currencies, while others classify them as securities or loans. On account of this, a widely acknowledged taxonomy of ICOs and issued tokens will be required (Arnold et al., 2019).

In general, ICO laws and categorisation differs per country. Prior to 2017, ICOs in China were uncontrolled, but due to wrongdoing by ICO initiators, the central government authorities released a rule forbidding ICOs outright in September 2017 to protect Chinese investors. ICOs are likewise forbidden by the South Korean government. ICOs are not regulated at all in Russia, where the Russian Federation is responsible for their regulation. While in the United States and Switzerland, ICO regulation is similar in that it is done on a case-by-case basis (Czaja & Röder, 2021). The categorization of the ICO is based on the classification of the token issued by the US authorities. The SEC uses the Howey test to classify financial products in the United States, and if the token is deemed to be a security token that results in the expectation of profit on money invested through

the activities of a third party, the token must be registered and is subject to US security regulations, whereas utility tokens are not regulated and do not need to be registered (Court of the United States, 1945; SEC, 2017). In February 2018, the Swiss financial market supervisory authority, which is the regulatory agency, published a regulatory framework guiding ICOs, like the Swiss authorities. The Swiss authorities distinguish between payment tokens, asset tokens, and utility tokens in the recommendations, however only the asset tokens are classified as securities and are subject to securities rules (Finma, 2018).

In 2017, the European security and market authority (ESMA) in the EU listed some characteristics of tokens such as voting rights or shares in future revenues, means of storage, exchange or calculation and a utility token granting access to products and services to token holders. They also explained that some tokens have no tangible value. The ESMA stated that when ICOs act as financial instruments, there is the need for them to comply with regulations such as the Prospectus Directive, the Markets in Financial Instruments Directive (MiFID), the Alternative Investment Fund Managers Directive (AIFMD) and the fourth Anti-Money Laundering Directive (ESMA, 2017a, 2017b).

With regards to ICO activities in Belgium, the Financial Security and Market Authority (FSMA), a member of the ESMA listed other regulations that may apply in addition to the above mentioned European legislation such as the 3rd April 2014 regulation on the prohibition on the sale of certain financial products to retail customers. This rule prohibits the professional distribution of financial instruments in Belgium to one or more retail clients whose returns are directly or indirectly based on a virtual currency. Another FSMA regulation is the Law on public offers of investment instruments and admission of investment products to trading on regulated markets, enacted on June 16, 2006. This Law establishes a monopoly on intermediation for the placement of investment instruments within the territory of Belgium, requires the preparation of a prospectus to be approved by the FSMA in the event of a public offering of investment instruments within the territory of Belgium, and determines that advertisements used in connection with the public offering must receive prior approval from the FSMA. Lastly, 18th December 2016 law regulating the recognition and definition of crowdfunding and containing various financial provisions: this Law establishes the requirements for authorization as a recognized alternative finance platform (that is, the financial form of crowdfunding) as well as the rules that apply to alternative finance service providers. The application of these laws are on a case to case basis and dependent on how the ICO is structured (FSMA, 2017).

The findings of this research can serve as a foundation for an approach toward developing policies that will protect all parties involved in an ICO while considering the various motives for investments for policymakers and regulatory authorities interested in setting guidelines and policies for ICO regulations. As the world seems to be moving towards this technology, the numerous advantages it offers cannot be downplayed even though it is currently challenges and risks (Kareem et al., 2018). For this reason, this research will focus on the benefits, motivation and challenges of initial coin offerings using cryptocurrencies as an alternative form of financing. Understanding these factors may play a significant role in the growth and acceptance of ICOs across countries worldwide. Bradford (2018) points out, there is a trade-off between the necessity for government intervention and regulation and the need for alternative finance for start-ups and businesses (Bradford, 2018).

Since regulation is still in its early phases, striking a balance between the requirement for investor protection and the cost of capital formation is critical(Huang et al., 2020). As a result, authorities interested in regulating ICOs might use our findings as the foundation for a more fine-grained approach to designing laws that account for a variety of investment incentives.

3 Research Methodology

3.1 Introduction

The research methodology consists of the process, strategy and techniques that is used to collect and analyse information about a research topic. Basically, this research section presents the answers to two questions namely how was the research data collected and how was this research data that was analysed. This chapter includes in detail the research method, the approach, the data collection method, the sampling method utilized. It will also explain the research process, data analysis, some ethical considerations, and the limitations of the study. The description of the research methodology will enable the readers to make critical judgement of the research validity and reliability

3.2 Research Method

A qualitative research was chosen to achieve the objectives of the thesis topic. Qualitative research is mainly used when the data cannot be measured or counted. One of the major advantages that the qualitative research method offers is that it is appropriate for a small sample size (Hammarberg et al., 2016). It enables the researcher to seek the participants views or opinions from a personal perspective or experience

3.3 Research Approach

For the purpose of this study, an inductive research approach was used with the grounded theory method. An inductive approach is recommended when the knowledge about a particular subject is limited. An inductive data-based method advances from the specific to the general, observing distinct instances and then combining them into a general theories or conclusions (Elo & Kyngäs, 2008). The inductive approach offers a set of procedures for assessing qualitative data that is simple to apply and produces reliable and valid results. The goals of using the inductive approach include summarizing textual data into a simple format, demonstrating the relationship between the research objective and the summary of the research findings. It also establishes a framework for the structure of the processes that are shown by the data (Thomas, 2006). Inductive approach is relevant for qualitative data from a small sample.

3.4 Data Collection Method

The data collection method conducted for the purpose of this research was an in-depth interview. In-depth interviewing is a qualitative research technique that entails conducting in-depth individual interviews with a small number of respondents to learn more about their viewpoints on a specific topic, program, or situation (Isabel & Sierra, 2006). A key feature of an in-depth interview is that it is combines elements of structure and flexibility. The in depth interviews method is an interactive style as it allows the researcher to fully explore the participants opinions, reasons, feelings and beliefs about a research topic which is an essential component of qualitative research (Robin et al., 2003). The data collection tool involved the use of a semi- structured questionnaire with open ended questions and the flexibility to allow follow up questions that acted as the interview guide. Semi-structured interviews include key questions that help outline the areas to be explored, but they also

allows to pursue an idea or response in greater depth. This approach's flexibility enables for the discovery or development of material that is essential to participants but may not have been considered relevant by the researcher (Gill et al., 2008).

Questions were prepared In the interview guide was meant to facilitate the achievement of the research objectives and the participants were allowed to give additional comments or clarify earlier questions. The questions were grouped into three main categories namely Introductory questions, middle questions, and end questions. The introductory questions were aimed at enquiring about the participants experience with alternative financing mechanisms while the middle questions were to shift attention to the specific alternative financing mechanism under research. Lastly the end questions were future oriented questions about initial coin offerings. Some of the questions in the semi- structured questionnaires and the complete interview guide is include in the appendix.

Introductory Questions

- I. But first, can you tell me about yourself: what is your name and what do you do professionally?
- II. Can I also ask you to rate yourself on how familiar (1 = not very familiar, 5 = very familiar) you think you are with alternative financing for business projects.
- III. According to you what is causing businesses to turn to alternative financing for their business projects nowadays?

Middle Questions

- I. Do you perceive a need for (more) regulation to be put in place to protect investors from these risks that they may potentially face from participation in ICOs? If yes, do you also perceive a window of opportunity for doing so? If you do not see one, why not.
- II. As the legal characterization and regulation vary across different countries, is there a need to have a generally acceptable classification of ICO tokens? If yes, in your capacity, what is preventing such a classification from becoming a reality?

End Questions

- I. How important do you think tokenization will be in the future for capital formation for businesses during and beyond their start-ups stage.
- II. What role do you believe regulation needs to play in the development of ICOs as a source of alternative financing?

3.5 Sampling Method

The sampling method used in the search is snow balling which is a non – probability sampling method. This sample method can also be termed as form of convenience sampling. This sampling is method was used due to the difficulty to reach the target audience. The participants were asked to reach within their network to recommend other participants (Naderifar et al., 2017). The sample size was then chosen based on their knowledge, relationship, competence, work experience,

research background on traditional and alternative financing mechanisms. The aim is to achieve saturation within the sample size taking into considerations differences in the opinions and viewpoint of the participants. The participants of the study include two participants from the traditional financial sector, an researcher on ICOs, an economist and blockchain researcher.

Participant	Profession/ Organization	Rate of familiarity (1=not very familiar - 5 = very familiar)
Mr G	Traditional financial sector	3
Mr A	Traditional financial sector/ Legal	3
Mr J	ICOs Researcher/ Ph.D.	4
Mr E	Economist and Blockchain Researcher	4
Mr S	Blockchain Professional	4

Table 2: List of Participants

3.6 Research Process

The in-depth interviews for the qualitative research took place between March 2022 and April 2022. The participants had been contacted via emails which included a summary of the research purpose and objectives. The participants agreed to partake in the research and an online interview was set up. The interviews took place using google meet and teams' meetings. During the interview, the audio was recorded and transcribed for the data analysis process. At the end of the interview, the participants were allowed to add any extra information, ask questions and make an clarification if necessary. The interview ended with participants answering almost all the questions.

3.7 Data Analysis

The data gotten from the in-depth interviews was analysed using Grounded Theory. Glaser and Strauss (1967) provided an initial definition on grounded theory, and they explained that the theory should "fit the situation being researched and work when put into use. By fit we mean that the categories must be readily (not forcibly) applicable to and indicated by the data under study ; by work we mean that they must be meaningfully relevant and be able to explain the system or behaviour under study" (Glaser, Barney; Strauss, 1967). Grounded theory both depicts and explains the system or behaviour under investigation, and as a result, it is a methodology for constructing theory that is based on data that has been collected and analysed in a systematic manner (Lazar et al., 2017) The theory emerges or is induced from the data collected rather than pre-existing it (Cutcliffe RMN RGN, 2000). During the grounded theory development, multiple rounds of data collection and analysis is conducted to induce or allow the emergence of the grounded theory from the data.

According to Strauss & Corbin (2014) grounded theory method involves these stages; Open Coding- in the open coding stage, the data is analysed, and key elements or instances are identified and labelled with codes. Axial coding which is a process where the codes identified are grouped by the similarity in their contents into categories that allows the researcher to in the codes. Selective coding is the last stage in the grounded theory where the categories are unified under a main category and leads to the formation of a new theory or the modification of an existing theory (Strauss & Corbin, 2014).

All relevant data gotten from the in-depth interview was reviewed. Open coding was done to identified concepts and then axial coding was used to identify emergent themes and categorised under thematic categories and lastly selective coding was used to group the themes under a core category which presents the grounded theory to explain the benefits, motivation and challenges of initial coin offerings using cryptocurrencies as an alternative form of financing. The next section will explain the different themes gotten from the data collection. The quotations are direct from the interview transcription with grammatical corrections made.

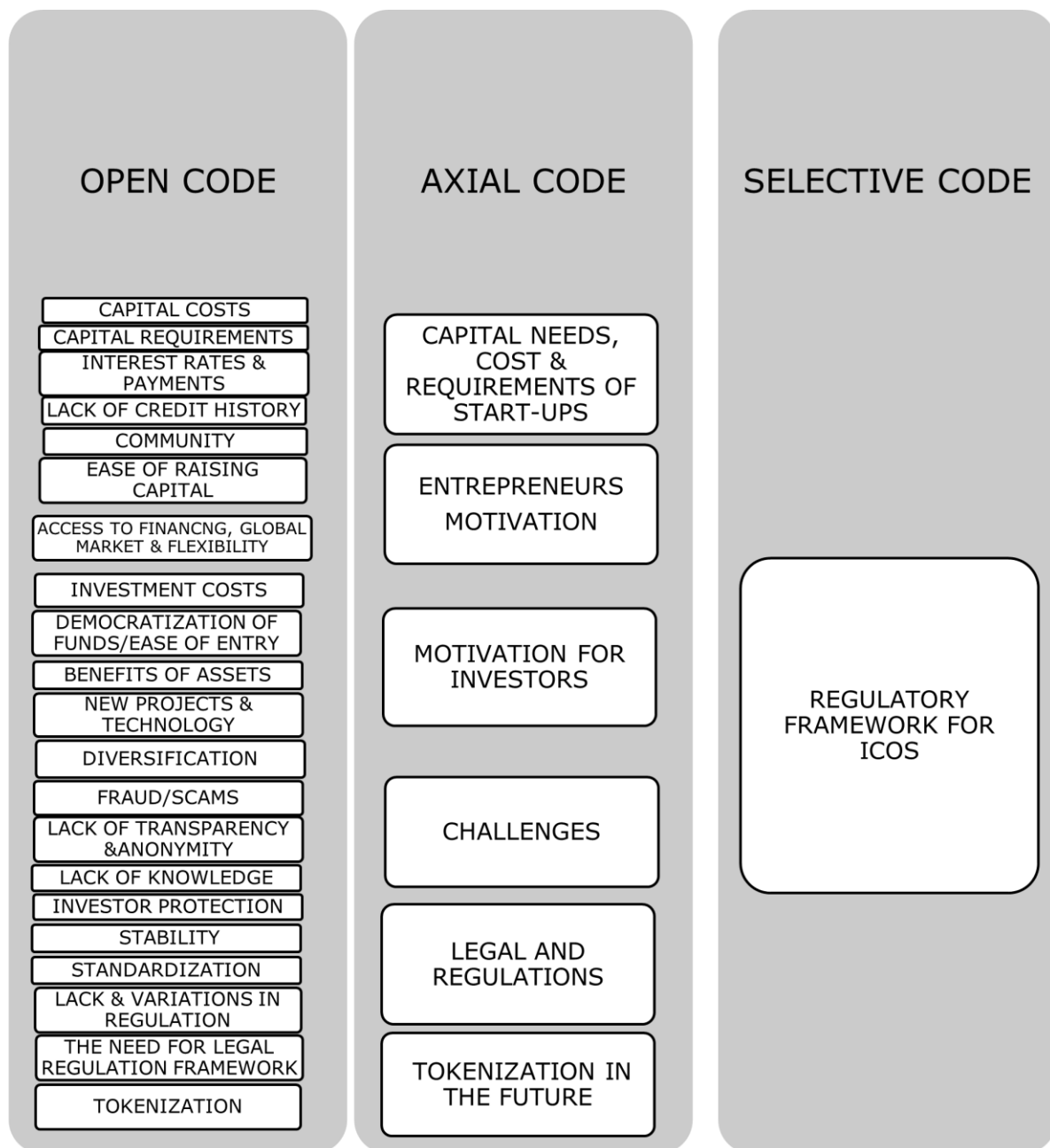


Figure 9: Coding Tree

3.8 Ethical Considerations

Ethical considerations were put in place while the conducting the primary research. An email was sent to all the participants briefing them about the purpose of the research and requesting their acceptance to participate in the research. At the beginning of the in depth interview, there was an introduction of the focus of the master’s thesis, the aim of the research which is to investigate the factors preventing the acceptance of initial coin offerings using cryptocurrencies as an alternative form of financing. The purpose of this introduction was to ensure that the participants are informed about the goal of the research and then narrow down the research objectives. The participants were then reassured that their participation was voluntary, and they were not obliged to an answer any

questions. After this, the participants were asked for their permission for the interview audio to be recorded for transcribing purposes and reassured that this was only for transcribing purposes and the recording will be deleted after the submission of the thesis. This is to ensure confidentiality, anonymity and that their responses will only be used for academic reasons and the better understanding of the research focus. The participants were not coerced to participate in this study, and neither were put under an form of physical or psychological stress while conducting this research.

3.9 Study Limitations

The thesis had a few limitations which should be taken into consideration for future research on the research topic. These limitations include

- I. Some questions were not answered by participants due to lack of expertise or knowledge: A suggestion for future research is to look for others who are willing and who are likely to have the necessary expertise about the subject.
- II. Lack of response to participate in the study by some regulatory authorities and bodies: A percentage of individuals who were invited to participate in the study declined. However, several of these people explained why they declined. Most of the people's initial non-participation was due to an overabundance of inquiries from researchers, rather than a principled objection to engaging in research. Inadequate response and participation rates reduce statistical power and increase bias. One suggestion for overcoming any apprehension to participate is to emphasize how much the research will benefit from the unique insights or contribution that the participants may have.

4 Analysis

Our research presents findings from interviews with stakeholders in the financing mechanisms market. Firstly, we present findings on the capital costs and requirements for entrepreneurs or start-ups. Secondly, we present findings on entrepreneurial motivations for using ICOs as an alternative source of financing. Thirdly, we present the findings on the benefits ICOs offer investors. Fourthly, we present the challenges of ICOs, followed by presenting the legal and regulations aspects of ICOs. Lastly, we present the findings on the future usage of tokenization.

4.1 Capital need, Cost, and Requirements of Start-ups

4.1.1 Capital need, Cost, and Requirements: Capital Requirements

The results of our findings show the inability to meet capital requirements by traditional financial institutions are one of the main reasons why start-ups seek alternative sources of financing such as ICOs. One of the participants noted that the traditional financial institutions have difficulties in granting funding to start-ups due to regulations put in place by the banking system. He mentioned that:

"Start-ups always have to look at kind of alternative financing. Why? Because in the traditional financing in Belgium and in Europe, which is the banking system, they don't really qualify for the banking system, where the bank is extremely regulated."- Mr G

Due to the need for capital which is faced by start-ups or entrepreneurs and their inability to access these loans from the traditional financial institutions. A participant (Mr A) commented that:

"If traditional financial institutions like banks, banks don't give loans to start-ups anymore, so they represent the traditional financial sector as we know it, so you go to a bank, you post collateral, you get a loan, and this requires people to come up with resources they do not have."

He further mentioned that:

"If you wish to start a start-up with some scale, you always basically rely on the three F's, friends, fools and family, it is very difficult to get any kind of financing without sufficient collateral, which usually isn't present when you start your business."

This further highlights the challenges faced by start-ups when trying to access capital to fund their business ideas or projects. Traditional financial institutions conduct thorough due diligence procedures that include; an examination of the management team, the proposed business plan and its feasibility amongst other things. On the other hand, due diligence in ICOs isn't done in a systematic way. The ICOs do not require the usual characteristics and performance standards of traditional financial institutions because they have become a popular funding option for entrepreneurs. This is a motivation for start-ups as highlighted by participant (Mr E). The entrepreneurs leverage on the capacity to access funds without the restrictions and expenses that a traditional financial institution;

"And this is the case because they don't need to meet the same walled garden requirements in traditional capital markets."

This is one of the key advantages of adopting ICOs as a source of crowdfunding for start-up services. It could also showcase the difference between the capital raising process for existing business and start-ups. Participants (Mr G) explained:

"If you make a difference between existing businesses, and start-up businesses, and start-up always has to look at kind of alternative financing."

4.1.2 Capital need, Cost, and Requirements: Capital Costs

Alternative finance for start-up entrepreneurs may also be influenced by steep capital costs because usually a firm's funding decision is mostly dependent on lowering the cost of capital associated with various financing sources.

"And it's the start-up costs of going public traditionally that I think for start-ups, especially start-ups that are bootstrapping. So, I mean that they haven't even done their friends and family round yet, they're just pooling their own money together to get this thing off the ground. I think that's the biggest challenge for them is they don't have the money to go public and have their have their business underwritten by a big four firm and partner with a bank. " - Mr E

He further mentioned the value ICOs offers or brings to start-ups regarding capital costs and working around the traditional financial institution's requirements. He said that:

"It circumvents the need for traditional processes and that also extremely cuts down regulatory and compliance costs" - Mr E

4.1.3 Capital need, Cost, and Requirements: Interest rates & Payments

One of the challenges in acquiring capital from traditional financial institutions can be traced back to their high interest rates and payments.

The problem of obtaining capital is therefore made more tasking and has further increased the need for alternative financing. Mr G stated that:

"The bank does have some pockets of money available for start-up in your businesses. But it's going to be limited and probably the interest rate charge will be high. Next to that when you restart a company, having to pay interest rates simply means that you have cash as a company. And for a start-up company which needs to invest that's not a good idea. You don't want to wait; you don't want to have money flows leaving your company like that for that reason. So, you will try to turn to alternative financing. "

When interest rates are high, investment will be discouraged due to the higher opportunity cost of investment. This may necessitate the need to access alternative financing for entrepreneurs as he also stated below:

"So, you will try to turn to alternative financing, which basically means kind of equity financing, or could be bonds or loans, but they must be really, of junior type in this case, where you can postpone interest payments and things like that" (Mr G)

In addition to cost reductions, ICOs provide SMEs and entrepreneurs with a method to reduce cash outflows especially in their start-up stage while still granting them access to capital. Participant (Mr G) stated:

"So that's the basic reason you're a young company, you don't want to have cash leaving your company. So, you don't want to be you don't want to have the interest rates. Basically, what you need, is capitals, equity, capital or equity, right capital."

4.1.4 Capital need, Cost, and Requirements: Lack of Credit History

The credit history of a business is used to record their repayments and is used by financial institutions to determine their responsibility towards debts. As the credit history of a business shows how credit has been managed in the past, start-ups are at a disadvantage as they have insufficient credit history. The necessity for credit history was highlighted by Mr G who also said:

"The banker wants to know about the credit risk, and they want to analyse their ability to pay back the loan. As a result, they will rely on their credit history and if one doesn't have a credit history, it makes things difficult." (Mr G)

4.2 Benefits for Entrepreneurs

Our findings reveal the benefits entrepreneurs' gain from an ICO span a broad spectrum, diverging beyond the primary goal of raising funds for their firms.

4.2.1 Benefits for Entrepreneurs: Community

One of the primary goals of an ICOs is to raise financing for a project or business idea and the participants have mentioned there is a community around blockchain ecosystem which the start-ups leverage as a source of direct financing.

We can build on these findings to show the key objective of entrepreneurs, along with a focus on community, drive financing decisions for ICO-funded firms. Thus, enable them in.

"Leveraging on the crypto world and community as an extra source of financing. – Mr G ICOs are also beneficial to start-ups because they create a big community of innovators and lead users who frequently share their knowledge, personal networks, and experience to help drive the project's development. A participant stated that the purpose includes benefiting from this community."

"I believe they construct these things with a community purpose in mind." (Mr E)

There is also the growth of the blockchain community globally as expressed by Mr J. He stated that:

"If we look, just look at the numbers and if you look at the community which is growing, still growing globally, that's an important factor"

This highlights the importance and impact of the blockchain community on projects and start-ups. In addition, he mentioned that:

"So, the community around blockchain is very important for blockchain projects because they build software for it, they support new projects, they support new fundraiser projects and things like that"
– Mr J

The technology expands the definition of agency by allowing a business to include a wide range of stakeholders, motivate them, and democratise decision-making, resulting in community-building and a more collaborative approach to entrepreneurship. The ICOs help in manifesting shared value generation, and a common mission and belief system and community building

4.2.2 Benefits for Entrepreneurs: Ease of Raising Capital

As shown above ICOs offer the alternative source of financing for entrepreneurs or start-ups which is one of the reasons for exploring other sources beyond the traditional financial institutions. The participants explained that in addition, it further enables those with limited access to traditional financial backing sources to obtain this necessary capital to develop their projects with ease. A participant (Mr E) noted that the main thing that distributed ledgers offer in raising capital on a global scale is the ease of access. Another participant stated that:

"So, I think it is way easier than raising capital in many other ways. If you want to raise money from private capital, you must have access to those people. And I think that's what this does this democratises raising capital, you're able to enter the market very quickly show your projects from the minimum viable products and immediately try to raise money. I think it's a very democratic way of raising money in that sense." – Mr A

Another participant spoke on the efficiency of this alternative form of financing as one of its core value propositions involves the elimination of intermediaries and in doing, it takes away the cost burden on the business. He described:

"And it's much more efficient in terms of costs as well because you don't normally like the whole chain is you know; you have intermediaries, intermediaries' companies and organisations that have to process a lot of stuff normally in traditional financing ways. And you kind of cut them off so it's much more efficient, and you don't need to pay people both as an organisation to do that."

He also went on to explain the benefits derived from this efficiency. He said:

"But it basically you know, it's the efficiency that you get that you did not need to wait yourself for all the intermediary to prove it and for the whole process to take place because you just do it automatically yourself."

The initial coin offering (ICO) has been regarded as a simple and quick way to raise funds. This results in an input of many ideas and businesses into the ICO marketplace that would otherwise be unable to obtain funding through traditional channels.

"So, you see people from Asia you see people from Africa, you see people in North America, South America, Europe, and things globally, cooperating with each other, talking with each other, investing with each other, in crypto and in the blockchain community, so that makes it a promising for the

future, really for business school because businesses maybe can gain capital in markets that they would never consider before.”- Mr J

4.2.3 Benefits for Entrepreneurs: Access to Financing, Global Markets & Flexibility

Banks, family and friends, business angels, and venture capital are all sources of funding for start-ups and entrepreneurs according to research. New means to raise cash have emerged over time. As the number of funding options available to entrepreneurs grows, it's more important than ever to grasp the interdependencies and ramifications of each funding vehicle, as well as how entrepreneurs pick amongst them.

“At that point, now you have the introduction of new players which are not traditional banking institutions, which a lot of them are fintech or outright tech companies that can leverage distributed ledgers to access capital on a scale that wasn't possible before globally without the prudential requirements necessary, because you can bake a lot of these things into the smart contract functionality.” – Mr E

Internal financing typically limits the expansion of small businesses; especially for capital-intensive, high-tech companies, financing is critical to compete and survive in the marketplace. Finding and selecting among several sources of funding to fund a business is one of the most fundamental, yet often most difficult processes for entrepreneurs as this decision can have tremendous impact on future start-up growth and success. Mr A highlighted this below:

“It's also a times very difficult to attain those funds. For example, in Belgium it's very difficult to earn money and then save it enough to start a real business that has scale. So, you'll always rely on business angels, venture capitalists, but even those usually require you to have something to boast up front. So basically, that means that as a business, as a start-up, you rely on connections you have from your personal life, which usually revolves around issues of class rather than ingenuity or something else.”

A participant mentioned the possibility of increasing capital for start-ups as one of the reasons why entrepreneurs use ICOs:

*“If it is just a start up from the very beginning, it's a good way of increasing let's say of course your liquidity, your money in order to continue operating according to your mission and vision of course.”
– Mr S*

Therefore, access to financing or capital serves as a major benefit for entrepreneurs in exploring ICOs as an alternative form of financing.

The opportunity to raise funds from a diverse group of individual investors on a worldwide scale opens more funding options in terms of project scope and scale without the constraints and fees imposed by traditional institutions is one which entrepreneur won't want to pass on.

“Speed, access to liquidity and access to wider markets would be my top three off just off the bat. I mean the rate at which you can issue an ICO the amount of people you can reach globally.” - Mr E

A participant who had earlier mentioned the efficiency of ICOs also spoke on the speed of the process as it enables quick access to funds not obtainable under the traditional financing institutions. He explained:

"Another thing that can do is because you know it's much more efficient and it's much faster. You will see that in crypto you have ICOs that have gathered millions of euros, of dollars in one or two days which is unheard of in traditional ways of financing." – Mr S

ICOs are recognised with giving investors all around the world access to the enormous upside potential of early-stage investments and allowing firms to distribute money among developers, early adopters, and investors. By doing so, the entrepreneurs gain access to investors capital globally.

Access to a wider market, *"I mean the rate at which you can issue an ICO, the amount of people you can reach globally and then the amount that you can actually pull in from a crowd fund is astronomical."* – Mr E

Mr J also confirms by explaining potential opportunity this presents for financing for businesses as he mentioned that:

"Businesses maybe can gain capital in markets that they would never consider before because they will normally not consider for example, small or medium sized businesses in Belgium. Bearing never consider raising funds in Asia for example, that with blockchain and with the crypto community they can and more accessible to do to do to raise funds."

Another participant explained this access to a global market with an example. He described that:

"The fact that you get a lot of more investors you know like for instance, let's say you are a company in the United States right, mainly the investors that you will get are Americans right like that's I don't know how many of them let's say 10, 20, 30 people will like to be the big investors that wants to invest right? When you do an IDO (initial decentralised offering), when you do an ICO, you have the whole world at your feet. Someone in Africa if he wants to you know can sell crypto currencies in the US and buy some percentage of the company, someone in Japan can do it. Instantly someone in Europe, so you kind of open yourself to a whole pool of new investors that before that simply they exist." - Mr S

Another benefit of the global nature of ICOs highlighted by the participant is that it reduces the need to pull a lot of money from each individual. Mr E expressed that:

"So, it's the fractionalization that's possible through tokenization that allows you to reach a wider audience and pull cents from this person, dollars from this person. You know from a micro payment's perspective or a micro financing perspective to macro financing perspective, that is impossible in traditional capital markets."

Therefore, the ICOs can be considered as a means of driving the financing needed for projects from a global market:

"I think this really globalises the offering which is far more representative and, in a capitalist, markets a far better way of steering capital to productive projects." – Mr A

Our research shows that For Project Initiator or start-ups trying to generate capital, the convenience and flexibility of ICOs are big advantages. The majority of ICOs have modest contribution minimums and because of the minimal investment, a wider audience can therefore participate in ICOs. In the traditional capital, fractionalization of shares is more difficult unlike the tokenization model offered by ICOs where little amounts can be pulled from a wide audience. A participant described how this is a source of attraction for ICOs initiators:

"But with tokenize models you can do that, you can take a penny from every person which you can't do in traditional capital markets. So, it's the flexibility on top of that as well I think that's the main appeal." – Mr E

The findings also suggest the flexibility behind the ICO technology creates room for benefits that project initiators can realise besides their main objective of capital raising such as additional income gotten from the sale of the project products.

"I think that's a possibility for a duality creates quite a few options for issuers, for entities raising capital to do a mix of the traditional crowdfunding where you sell, that's buying in the form of obligations if you sell shares or on the other hand, if you sell your products. I think in ICOs, there's room for both. So, the flexibility that the technology allows is I think its greatest assets." - Mr A`

Another participant stated the ICOs technology leverages on smart contract and decentralisation and enables automation. He mentioned that:

"I get is the flexibility that you can have with ICOs so you can programme a lot in smart contracts, you can set up a decentralised autonomous organisation thing like that, you can have governance depending on token holders and all things be automated and then things if you have a lot of flexibility to the future as well." – Mr J`

4.3 Benefits for Investors

4.3.1 Benefits for Investors: Investment Costs

The time and cost required to seek traditional seed investment were a big driver for investors investing in an ICO, as it allows for investments at a lower cost. One of the interviewees, Mr J explained:

"If the business who is doing the ICO caters it well, it can have a low barrier, it can have a really low buy in for a potential investor and maybe the investor can raise its stakes and maybe buy a more tokens or coins for example. But the buying in principle tends to be lower with ICOs from the money point of view, but also from the time invested to look into the investment as well. So that's a key beneficial thing for the investor." - Mr J

A participant mentioned that a benefit that ICOs offer investors is that they are not limited to only accredited or wealthy investors but presents an opportunity for people with limited funds to partake in this investment. This is also beneficial for businesses as it increases the amount of funds, they have access to. He explained:

"Also, the fact that you know, you don't necessarily only have people who are accredited investors, or let's say wealthy investors that invest and you know with ICOs, you can also help people who have modest means as well, they can also give, they can also invest in your company of course as well, which in the end increases the amount of money that you can raise"- Mr S

In terms of cost, an ICO is viewed as a simple vehicle that does not require a large amount of resources but offers significant fundraising results in a cryptocurrency market while also giving value-added services to the audience.

4.3.2 Benefits for Investors: Democratization of Funds/Ease of Entry

The initial coin offering (ICO) has been regarded as a simple and quick way to raise funds. An ICO, in general, lowers the hurdles to entry for funding and is open to everyone, regardless of their background, education or technological skills. As a result, initial coin offerings (ICOs) are supposed to democratise start-up funding. Our interviewees reflect this as well.

"It's more democratization of funds and funds raising democratisation of investment." - Mr J

A participant mentioned that democratisation of finance opens investing to anyone who can connect to the internet. He said:

"One of the things is that anyone who has a connection can participate in. That you know, it's one of the parts of decentralised finance generally that it actually democratises finance, it democratises investing." - Mr S

A participant further explains that for investors, the ICOs allows access to projects from the initial stage which enables them to reap high benefits or returns unlike with traditional financing mechanisms and venture capital with low probability for them to participate in projects:

"With democratization, it's possible to get into a project earlier than normally. So, what we see with many projects that in beginning, venture capital is being involved and those people get in at a very early stage at the seed stage where normal investors like you or I might not be able to participate and lose out on some of the biggest gains are most promising projects. It's possible that to do ICOs, that as an investor, you might be able to get in on the bottom shelf and go all the way up to the final value, you might get into Facebook at level zero. And I think that's something as an investor that's immensely valuable, that normally you do not have access to for global reasons." - Mr A

Provision of financial resources, no special industry knowledge required of investors, removal of geographical obstacles to investment, valuable indications about the product/market buyer's potential, product marketing and cost reduction are only some of its incentives. A participant explained that:

"ICOs tend to have a lower buy in and a lower hurdle for normal people, for people who do not have like a lot of financial knowledge and things of that and that's where the decentralised finance from this spectrum is all about."- Mr J

4.3.3 Benefits for Investors: Benefits of Assets

Entrepreneurs use initial coin offerings (ICOs) to transfer digital assets - such as coins and tokens - to investors (also known as token holders).

"Yes, I think as an investor, it is way easier to transfer your assets. So, I think very often if you're dealing with private capital, you have to find a new shareholder. it might not be easy transfer capital, and they might not have any interest because there is no market itself"- Mr A

As soon as the project is launched, these tokens take on various purposes and utility within the issuer's network. One of the interviewees explained:

"So, a lot of tokens can have a utility aspect (the tokens provide access to products or services) regarding services that are delivered by the company where they are investing in with by means of an ICO. So, utility aspect can have a great beneficial aspect of the investment as well, especially compared to traditional means of investment, where you do not have really a utility aspect turn not most of the time of all the time."- Mr J

While investors do not have a claim on the start-up's assets, as the token's value rises, they benefit from an expanding network and increase usage of the service. Mr J further pointed out:

"So initial coin offering has a little bit of a dual structure possible. So, you do not necessarily only have your security your coin as an asset, you sometimes also getting benefits from your assets. So, you may be able to use your coin to buy services from the project you're supporting."

4.3.4 Benefits for Investors: New Projects & Technology

ICOs are seen to have the ability to democratise innovation and change entrepreneurship by allowing firms to share wealth with engineers, early adopters, and investors from all over the world. As Mr J put it:

"ICOs are alternative, new and innovative using innovative technologies and so on. That really spur interest for people broadly speaking."

Another one of the interviewees expressed that, investors are caught up with the excitement of investing in an ICO. A participant listed that the novelty of being part of a new technology or projects holds a certain appeal for investors. The two participants stated that:

"Yes. if it stays like it is today, which is kind of new and it's very exciting because of that stuff" – Mr G

"And I think also the novelty of it and the fact that there's so many unique projects that are currently out there trying to vie for a token offering." -Mr E

ICOs are a social and technological revolution in the financial sector and the technology allows the need to circumvent traditional processes

"There are all these fancy projects out there. And I also think the idea of being part of something that's new and novel because blockchain is like a combination of countercultural radicalism and technological determinism in one" – Mr E

"So, the community around blockchain is very important for blockchain projects because they build software for it, they support new projects, they support new fundraiser projects and things like that"- Mr J

4.3.5 Benefits for Investors: Diversification

Instead, the fresh chances and perceived advantages that an ICO provides drew a participant in. He expressed his opinion that an ICO exposes investors to new companies but also considered that there is a chance while potentially providing high returns, there are also high risks involved. He stated that:

"I think it's going to give you brand new type of companies that you want but that you find less in the traditional world. So again, to diversification, your scope, it can potentially give you extremely high returns as it is going to be your company. So yes, return risks are higher, but returns probably will be higher as well." - Mr G

4.4 Challenges of ICOs

4.4.1 Challenges of ICOs: Fraud/Scams

ICO fraud is widely recognised by regulators and market agents as one of the most serious concerns and risks to the Blockchain ecosystem. This was described by one of our interviewees:

"So, the sector is rife with frauds and with ill thought-out broad projects. I think that's one of the issues when you are raising your capital, you first have to convince the market that what you're delivering is not only worth it, in and of itself. In context you also have to assure people that what you are doing is not running a scam." – Mr A

Another participant mentioned the scams that are plaguing the sector is as a result of the lack of regulations. He said:

"So, because of lack of regulation still, there's a lot of scams still going around. So, this is I think is the main downside." - Mr S

For investors, the most obvious danger is inability to verify if the investment is fraudulent or not as pointed out by one of the interviewees.

"The biggest one, second of all, ascertain whether it's a scam or not, deep trade might be picking up, and things might be happening very quickly. And you are not certain whether this scoring is fraud or not even, you see many people at advertising these kinds of points. So, you see this on social media networks which might sometimes be trusted people in certain community who still use it as a scam. That is highly problematic for investors because you want to assess the business merit,

you do not want to assess the issuer which you might not be able to do so because there is no public information. And no way to verify that information If it's just on the internet.” - Mr A

Another interviewee also highlighted investors who are not code literate cannot read the smart contracts and thus do not have a full understanding of the project and may be susceptible to scam projects. He described:

"And there are lots of scam projects of course, as well. So, one of the things is that you have something that is called a rock. This means that you can even have IDOs you know even in smart contracts, if you're not, let's say code literate. This is not happening of course in every single ICO or IDO, but let's say it happens you would say perhaps with 1% of the project or half a percent of the project, if you're not completely code literate and you cannot read the code of the smart contract, the smart contract is programmed in such a way that you just put the money in and the money just goes to the pocket of the president of the company, or of the person that created the smart contract without giving you the money back.” – Mr S

A participant (Mr E) also pointed that, investors are easily swindled by buzzwords and white papers that set unrealistic time horizons. Some of the investments are subject to confirmation bias when they purchase something and so they want to believe it's true even if it isn't. The participants explained that some project initiators, developers, or founders are greedy and opportunists who are only looking to make a fast cash by committing fraud or over-exploiting technology by providing meaningless services and products.

"And I think that a lot of companies that are issuing tokens or issuing tokens that are vapourware, they have no value” – Mr E

A participant (Mr E) gave an example of a friend who invested in the Electroneum ICO and lost all his investment. He described:

"A friend of mine invested in put in like 3- 4000, or something like that. And the idea was that Electroneum was going to go from 0.001 cents to five bucks a share and this was going to happen, that was going to happen. Eventually, nothing happened, and he lost all his money.”

This has been one of the major causes of concern for regulatory authorities as described by the participants and thus the need for regulation to be put in place to boost the confidence of investors.

"The biggest issue for regulators is the scams, it's the rug pulls, it's the shady dealings and it's the fact that unfortunately, retail investors behind large have no idea what the hell they're investing into.” – Mr E

"I think that a lot of regulations is needed to reassure investors. Currently there has been too many scams, too many fraud cases”- Mr A

4.4.2 Challenges of ICOs: Lack of Transparency & Anonymity

According to the findings, information asymmetry is exacerbated by a lack of transparency in the absence of pre- and post-ICO disclosure obligations. They indicate a lack of proper standards, lack

of openness in the selling process, consequent lack of sufficient responsibility, and blatant deception and fraud of non-qualified investors from an ethical standpoint. A participant spoke on the need for transparency:

"The first need that I think is required is transparency. So, the project has to be transparent on how it is being run. So, when we talk, we're talking about governance, we're talking about assets that underlie the value of your crypto assets. I think about future intents, how many coins will be issued, the business plan of operations., what will the project fully consist of. I think there's need to know of how the IT infrastructure derives its association with your coins and your means of recourse in case something goes wrong." - Mr A

"Second, with regard to transparency, there has to be some liability. If there are lies concerning what has been communicated or mistakes, then the issuer has to be liable for this." - Mr A

Another participant explained that there is a lack of transparency with regards adhering to any legal requirements. He said:

"A lot of lack of transparency in terms of Legal Compliance as well." - Mr S

The participants described the positive and negative impact of anonymity on ICOs. They explained that checks on ICO offerings for Know Your Customer (KYC) and Anti-Money Laundering (AML) may be insufficient unlike in traditional financing institutions who have put this in place as a requirement. This should normally scare a sensible investor; nonetheless, it holds a certain appeal to some investors who consider this an asset. A participant said:

"In the event that they're not KYC, you want to remain anonymous. It's the anonymity as well, I think that appeals to a lot of retail investors who you know don't trust a system that they feel is increasingly surveying them. So, they feel like they have a little bit more financial autonomy over their investment decisions." - Mr E

Another interviewee pointed this out that the crypto sector enjoys the privacy it accords them:

"But the problem here is of course, the fact that you know the crypto culture and the crypto industry is quite special in terms of you know, they value their privacy as well." - Mr S

However, another participant mentioned that there is liability or limitation that comes with this anonymity.

"For example, if you today make a lot of money in crypto and you wish to transfer to your bank account in Belgium at least, it is very difficult to find a bank that is willing to accept your fund. So, the fungibility of your crypto assets to cash is very difficult. And I think that is going to be a major hurdle as well. So, the anonymity that you sometimes have or privacy at least with crypto assets while for a niche amount of people is an asset, I think that is a very great downside for many people wishing to actually make money out of it". - Mr A

The KYC requirements put in place by Traditional Financial institutions entails that there is a process of verification for customers and are continuously requesting for due diligence information. This

process is part of the financial system AML policy, including fighting against financing of the terrorism in contrast, there are no due diligence processes in place for ICOs. A participant explained that:

"The big thing there as well is the KYC right, when you're issuing an ICO, you're pulling money from God knows where, from who and usually, you're not doing any due diligence on where this is coming from. So, from the AML, CTF perspective, that's also something that ICOs could get better at it, if they want to stick around." – Mr E

Another participant speaking on the risk involved in anonymity explained that while -

"I think it's still new technology, very pretty new technology, which is definitely not mainstream, which has a bad reputation because of financing terrorism, because of the anonymity, which is connected with the fact that nobody really knows what's going on there." – Mr G

4.4.3 Challenges of ICOs: Lack of Knowledge

The result of the findings shows that while the interviews agree on the ICO model as an alternative source of capital for businesses. But in spite of that, they explained the lack of knowledge that is prevalent in this financing mechanism as businesses, investors and regulatory authorities are struggling to grasp the full picture of what this entails. Therefore, the process of gaining knowledge about it comes at an additional cost which could be a financial investment or time based. A respondent explained:

"It is an alternative way of financing your company, but you need quite some time, you need to build quite some knowledge source and you need have some investment to be done before you can enter it. And so, I think people, most people, let's put it that way. Don't want to don't like things they don't know; they don't want to spend the time or make all the cost through the investment into the knowledge that you need to build up." - Mr G

Nevertheless, another participant spoke on the opportunities that could be exploited from gaining adequate knowledge by ICO investors:

"I think this delivers you enormous opportunity as an investor if you have the experience knowledge and risk awareness to make use of this." - Mr A

As this financing mechanism is digitally and technologically based, the lack of knowledge presents a new set of challenges for businesses looking to go that route for capital raising. A participant described businesses face this challenge in trying to explore ICOs as a result of their lack of education on how the ICOs process works but also inadequate people with the right skillset to do it. He said:

"I think like specifically for ICOs I think it's also the lack of education in terms of how to do it, not only how to do it, but also the lack of skilful people to do it. Because of course, you still need to hire someone who knows how to do all these things." – Mr S

Another participant explained that the blockchain sector has its own language that isn't known to a lot of businesses in addition to their lack of knowledge on this digital technology. He said:

"And another, maybe one is digital knowledge that they do not have. So, a lot of businesses are maybe interested in these blockchain or ICO types of funding but there's a lot of technology,

technological speak about it and a lot of jargon and things like that make it not that accessible.” - Mr J

There is also the lack of adequate information about people who have extensive knowledge on blockchain and so there is also the need to have access to these people who make up the blockchain community as explained by a participant:

They have no real or they are not much profiles of people who are in deep knowledge about blockchain, for example, or indeed technological knowledge on blockchain or have the knowledge at least of the community around blockchain because blockchain is very sensitive to his community. So, you really have the need for people who have those kinds of knowledge.” - Mr J

Mr S further mentioned that the lack of skills and people who have the knowledge to program the smart contract for the ICO, how to ensure that the investors know about the process and how to participate in the ICO. He explained:

“Well, lack of knowledge and lack of education, lack of skills as well because as I said, you know you have to programme the smart contract, you have to know where to go, in which platforms to go on. How to make sure that people that are actually going to go into these things get to know that you're going to an ICO and how they would participate basically”.

Regulatory authorities are equally under pressure with regards to rules application for the crypto world. Their lack of knowledge on what the technology is, its characteristics, its comparison with other financial mechanisms and how they regulate it is a source of concern. Two of the interviewees explained:

“First of all, lack of knowledge. So, I think regulators among the world are still going to grasp with what crypto is. And I think that is also in part because the crypto sector itself is very uncertain on where it is going, is it going to be a payment instrument? Is it going to be the fully DeFi world of tomorrow, where no rules apply? So that makes a very big difference. So crypto is a very broad field and more a technology that is trying to get used for financial reasons.” - Mr A

“And it's extremely abstract for a lot of people. So, I've been talking to people who make up the regulation and they struggle with the interpretation of what's exactly this, what's exactly that? What's the difference? How can they relate to the existing regulations that do exist in order to create again this is level playing field, to make sure that you regulate the same instruments in the same way.” - Mr G?

“And that means you have a lot of products with a lot of different characteristics that can be developed, and how should you regulate those things? How should you relate it to the existing stuff? It's a people don't have the knowledge to do that. So, it's a lack of knowledge.” - Mr G

The lack of knowledge confronted by investors on all the details of their investment, what the project is about and the benefits or risks they may encounter in the future as a result of their investments. According to a participant, this presents a source of concern legally as well be a barrier for investors in ICOs. He noted that:

"Probably knowing what they are investing in because it's all new. And there is a practice of white papers and things like that. And that's why it's legally or from a legal perspective as interesting and as maybe as troubling. Is the possibility to find out what you're really investing in what you are really getting or what you are really getting in the future and things like that. So that will be the main barrier, I think for investors nowadays, to invest in ICOs." - Mr J

The difficulties in the categorization of the different types of token or coins are a major challenge in assessing their legal qualification. The participants explained that across multiple jurisdictions, there are different qualifications in place, and this has resulted in the lack of a harmonised taxonomy. They described these challenges:

"I think first of all, the risk. So, across jurisdictions, we see there's various qualifications. What is a coin? For example, in Belgium, so far if we see a cryptocurrency that is not a coin, we do not consider that as a legal form of currency. That means that legislation is not applicable to cryptocurrencies." - Mr A

Another participant pointed that while it might not be easy to come up with a general classification for the different tokens or coins globally, there is however a possibility of having a common classification within the EU. He explained:

"And it's not that easy to come up with a good taxonomy or a good classification of different kinds of tokens, different kinds of coins. So that's the problem from the get-go. And if you want to harmonise taxonomy or classification, maybe it possible within the EU because you have like a political arena in the EU with a with one legislature, legislator, really on financial matters. But you also have different kinds of regulation in different EU member states, maybe they will be updated by the EU legislation in the future. So that's maybe possible to have a taxonomy within the EU. But globally, it's more difficult, of course, because you have a lot of actors, a lot of countries with their own legislation within their own regulatory bodies and things like that." - Mr J

The participants also expressed concern on the conflicting views of the different categories of tokens or coins. According to the participants, there are debates on the definition of what these coins are. There is yet to be a consensus regarding whether they could be classified as assets, securities or utilities which could eventually determine their legislation or regulatory framework.

"Yes, so I think first of all, a very good question that's going to be debated is what is a coin? Is a coin, a currency or is it an asset for investments? And as I said, that's very difficult to ascertain, because sometimes use determines what something is." - Mr J

"So, for example, DLT distributed ledger, for example, Blockchain. But if you say that, that traditional securities on the LD become crypto assets, and that's, for example, a conflicting definition you can have in your taxonomy or between different taxonomies. But with a lot of impact, because if you have different regulatory frameworks can different respectively, instruments, you can easily have conflicting points of view and conflicting outcomes. So that's why it's difficult because crypto enables a lot of different things. That's looking to say. security, and a token can have a lot of same aspects on the same technology, but with different for example, legal implications. And then it's why it's difficult to come up with a solid taxonomy that is treating things in separate categories." - Mr J

An interviewee spoke on the need for the advanced economies to have a consensus on the taxonomy of the tokens. He said:

"Yes, absolutely. I think that if at the very least the advanced economies can come together, the G-7 or the G-20. Some common framework standards for let's say a tiered structure for ICO tokens. If this is a security token, this is a utility token. We can all come to some consensus definition of these things. It's going to be a lot easier for cross border regulation and in the event of contravention to those regulations to levy the appropriate penalties." - Mr E

4.5 Legal and Regulations

4.5.1 Legal and Regulations: Investor Protection

The lack of disclosure rules in ICOs exacerbates existing information gaps in early-stage SME financing. Regulatory arbitrage risk exists if regulatory action is not coordinated in some way. Participants expressed the need for regulation to protect investors.

In addition, there is a lack of financial consumer and investor protection in ICOs which would allow investors to seek redress and compensation in a situation where bankruptcy laws are not guaranteed and fraud is a major danger. The need for regulation of ICOs as an alternative source of financing in other to protect investors was further highlighted by the participant. He said:

"It's standardisation making things familiar, it permits protection to investors I mean if you go and put your money in the bank, you know if the bank goes bust, you're guaranteed to get your money back until 100k. If I invest into an ICO and the thing goes bust or it's a scheme, I've lost everything, and most people don't like this."- Mr G

Emphasizing the benefits this investor protection will bring. He explained:

"So, you need regulation in order to give protection to people, in order to give stability to the market, in order to give confidence to the market that what we're doing is something that is good, and is stable." - Mr G

4.5.2 Legal and Regulations: Stability

ICOs can be considered as high-risk, high-volatility investments due to the unpredictability and hazards inherent in their current form. As participant mentioned:

"I think obviously volatility. So, we see extreme volatility and all kinds of coins. That is not good. As an investor, you want some volatility because obviously you want your assets to be able to increase your value, but you also want this to be somewhat controlled."- Mr A

As ICOs in recent years have proven to be a viable alternative to established funding techniques. However, according to the research, they are still limited to a niche market of investors or small audience. Consequently, a participant spoke on the need for regulation to give assurance to investors, reach a larger audience and inject confidence to the market.

"A proper set of regulation gives stability to the market. So, the new arc, and this stability makes it more predictable and gives more certainty to investors. So, you need it in order to attract bigger audience of investors." – Mr G

He also explained the benefits that these rules have to offer for entrepreneurs or businesses:

"The more rules are harmonised, the more it's going to be a level playing field, the more stability and again predictability it will be, the easier it's going to be." - Mr G

4.5.3 Legal and Regulations: Standardization

As different jurisdictions have different requirements for ICO, there is no standardization across board. An interviewee expressed concerns over the possibility that project initiators may get caught up in the lack of transparency with regards regulation and incur potential fines as a result of these lack of standards. These he explained are one of the reasons why businesses may not turn to ICOs as a source of alternative financing. He listed them as:

"Lack of international standards, regulatory opacity, and the threat of retroactive penalization." – Mr E

Another interviewee explained that these international standards guiding ICOs can only come into being after there has been a consensus classification. He said:

"So, until there's international standards and this is going to have to come first, we need to agree on the definition taxonomy of these tokens before you can have an international standards discussion."- Mr E

A participant explained the need for international regulatory bodies to agree on a consensus regarding initial coin offerings in order for frameworks and standards to put in place.

"We're going to need common frameworks and common standards. Now the ISO 37, I believe is working on 15 blockchain standards. They have four published currently, so the international standards organisation, which is one avenue for this kind of global view of blockchain, the World Wide Web Consortium as well, which is helping to set the tone for regulation and web three, this these are these are channels, this are avenues where this consensus could come to an agreement but also know the World Bank and BIS, the Commission, the Feds, these are institutional organs that are going to need to be on the same page with respect to the coin offerings from a macro prudential investor, technological and regulatory perspective if we are to see progress, an equitable, equitable blockchain ecosystem".- Mr E

Another participant spoke on the effect of lack of standardization in the rules across different countries as this has a negative impact on raising capital:

"Standardisation really makes them creates a big market. If every market is separate, different and every country has its own rules, that means that your market and your total investment committee will be scattered. Yes, it will be fragmented, which means you will never be able to raise a lot of money because your investors need to need to study huge number of different rules. Yes, I think

uniformization over big geographic or economic region is important if you want your market to thrive.”- Mr G

A participant expressed hope on the likelihood that rules will be put in place by the various regulatory authorities to create a global standard in this sector. These will include agreeing on a consensus on the definition and classification of the token as well as these rules implementing globally.

"I think work is going to be performed in various anti- money laundering working groups, in the bank for international settlement, among the OECD which will standardize the sector in a technical sense but also in a legal sense. That there is going to be a consensus of what crypto assets are, when they are securities, when they are payment instruments – what does that mean if they are a payment instrument, how platforms are regulated, what transparency means? I think we are going through a few global aspects, also implementing global standards such as PU, CDF. So, know your customer kind of thing. I think those things are going to be implemented on a global scale.” - Mr A

To overcome knowledge asymmetries that presently exist in the financing ICOs, standardized disclosure rules would be required.

"So, for ICOs, it's the same thing. It's in terms of the standards for data, the standards for KYC and then also the lack of the lack of a harmonised token taxonomy.”- Mr E

4.5.4 Legal and Regulations: Lack and Variations in Regulation

The advent of cryptocurrency has brought conversations about changes and some levels of change to the financing mechanisms for business. ICOs have been lauded by their globalised offerings, but this has caused regulatory concerns over the rules that should apply and their need to have an oversight or control over it. A participant described these:

"I think that's something that cryptocurrency has changed with, I think one of the first globalised ways of raising money is an initial coin offering, regulators are scrambling across the world to finally find some way of gaining leverage over that.” - Mr E

Another participant explained that one of the major challenges encountered in using ICOs as a source of financing for business is the legal aspect. He mentioned that this has led to categorization debates in the EU and US,

"For ICO is the same. It's legal, it's a leader, it is usually the barrier at this point. In time, you will have in the EU debate on some things like how to qualify and specify token or coin, but also in the US. There are debates about it all over the world. So legal is one of the main challenges of using ICOs as a financing tool or fundraiser tool.” - Mr J

He further mentioned that these legal challenges been debated have led to uncertainty regarding rules applicable:

"The legal, real problematic uncertainty. So, there's a lot of uncertainty regarding rules that may or may not apply.”- Mr J

A participant described that the inconsistency or variations in the regulation could also be as a result of the lack of definition regarding what coins are. He explained the need to have uniformity in the rules applicable across various jurisdictions. He mentioned:

"So currently, we see that most crypto assets are very likely or not regulated at all. Whereas securities or various ways of crowd funding are regulated, I think at least there should be the principle of same risk for same activity. And that might be difficult to ascertain in a digital context. Because what is Bitcoin? For example? Is it a means of payment? Or is it an investment? And that is often determined by the use by users? So, I think there has to be some consistency in that across jurisdictions." – Mr A

However, another interviewee disagrees on the need for uniformity in the rules applicable to tokens due to the inability to put all the different tokens in a basket of classification. He said:

"A general no because you need to have a really specific one because for instance, with securities, let's say with Ethereum, you also perhaps know Cardano So, these ones like Ethereum and Cardano, they are sort of like companies, right? So, when you buy Ethereum, you invest in those companies, you kind of get a stock and a stock is a security right, but when you use Bitcoin or when you use Stable coins, you do not invest in the company, instead you buy cryptocurrencies that represent a real-life currency, right. And these are not securities anymore, these are real currencies, right? Because it's they are stable completely no and they kind of represent you know, dollars, euros, yens, roubles and so forth, depending on the currency there."

He went to describe the reason for this:

"What I would say in terms of how to regulate them. You kind of have to be able to understand, what each token represents. You cannot put them all in one in one basket and say cryptocurrencies, let's help them all as either currencies or as securities because they're far more complicated as products than just generalising them in a really general brush."

As different jurisdictions have different rules concerning ICO investments, there could be a barrier for investors when trying to enforce rights or benefits due as a result of an investment. One of the participants described this scenario:

"Lack of legal enforceability. So, if you invest in a coin in the United States, if you want to bring a case against the issuer, or the seller of such a coin, good luck if you're not in the United States. And even if you are in the United States, because of the difficulties in assessing legal qualification, it might be very difficult once you have spent money to get rights you are owed under your agreements." – Mr A

Another participant spoke on the variance in regulation across countries. He mentioned that while some countries have regulation in place, others and investors when trying to invest in ICOs have no knowledge on its legal status in their country as well as knowledge on all it entails. He said:

"But also, to some extent the lack of regulation in that but also, how should I say it? Well, lack of regulation in certain countries because some countries have regulated it already. And also, the lack of, as I said, knowledge in terms of regulation, because let's say if you're in a country and someone

tells you specifically about ICOs for instance, how do you do it, what is this or is this even legal in my country?" – Mr S

4.5.5 Legal and Regulations: The Need for Legal and Regulatory Framework

The findings show that the participants recognised that process of creating regulatory and legal framework scheme for cryptos has its challenges as there are difficulties that comes with determining a broad concept that suits different systems given that its niche sector. A participant explained that:

"So, regulating a niche that changes very often of which coin is dominance is also very challenging. You need an underlying business and underlying reality that you seek to regulate. That's also going to take some time. As I said, implementation and local legislative systems, it's very difficult to come up with a concept that works for everyone's legal system. Some legal systems might accept a broader definition, whereas others might need a very specific one to deal with its existing regulation. People also don't want to change existing regulation for a vast array of financial activity simply for a niche activity such as crypto" - Mr A

A participant suggested that an ideal scenario will be to have one common legal and regulatory framework that takes different situations in consideration however he expressed concerns over the fact there could be a sector that they may want to stimulate specifically, and this may lead to the need for a new framework.

"The most ideal thing would be that there is one coherent regulatory or one coherent framework with different rules applying to different situations and the problem is that there are needs to be taken into consideration, some choices in things you want to discriminate against. So, what I mean by that is, if you want to for example, stimulates more crypto instruments, then you will need to choose the stimulating aspects and then you will need to have like the philosophy behind it and use this philosophy to lay out a new framework." - Mr J

He also explained that if there may be unanticipated results that may occur as a result of introducing a new regulatory framework for ICOs which could have an impact on the crypto community. He noted that there might be the need to synchronise this new framework with existing frameworks.

"Because the question is if you're making a different regulatory scheme for Cryptos, then there can be this problem that you are providing a new regulatory framework that is maybe possibly filled with unintended consequences. That has a lot of impact on for example, the other securities but also maybe on the crypto community as well as itself. So, it's really a difficult subject and it really needs to be aligned. If you take the route to make a new legal framework for Cryptos, it really needs to be aligned with our already existing regulatory framework"- Mr J

Another participant speaking from the crypto community angle said that they welcomed the need to have regulation put in place but cautioned on the need for these regulations to be measured and flexible. He said:

"I think the regulation is welcome. I think it needs to be measured and be flexible and I'm sure I'm not the only person that it is calling for that and that really now the ball is in their court because from the from the community side, we can scream till we're blue in the face." - Mr E

In further describing the effect of putting in regulations that are measured, he explained that this common framework should reduce compliance costs, headaches and introduce confidence into the crypto community. He also highlights the benefits it offers nations who welcome innovation in their financial system while saying that if the regulations are too rigid, it has the adverse effect of influencing people to find a way around the established system. He said:

"So, I think that measured approach also comes in so we can look at some common framework that has been to alleviate compliance costs, it's going to alleviate headache, it's going to inject a sense of confidence into the community. And it's also going to ultimately benefit nation states who want to see as accepting and inclusive of development but at the same time, still maintain some sense of control over their financial systems. Otherwise, if it's too forceful, you're having the opposite effect, you are pushing people to function outside of your economic system. And the tech will always let you do this." - Mr E

Another participant also spoke on the advantage of conversations on the current legal and regulatory framework been held as necessary as it has the potential to support the sector. He mentioned that the sector is willing to embrace it at this point.

"I think it is useful to debate because I think the current legal and regulatory debates is not simply one to curtail the sector. I also think it's supportive and I think the crypto sector at large welcomes regulation at this point in time. Now, the way to do this requires some flexibility." - Mr A

However, another participant spoke on the need to achieve a state of equality or between the different elements needed for regulation without over controlling as this has the potential of hindering innovation and pushing project initiators to an economy which is more receptive.

"I think that regulators need to strike a delicate balance here, because if you overregulate from the beginning, so ex-ante, you risk clipping the wings of a nascent industry and you risk choking for example, Europe's innovative capacity. You also scare off potential talent and start-up sector from wanting to develop their projects here, and they'll go elsewhere where the regulations are more relatable." - Mr E

A participant agrees on the need for regulation but spoke on the importance of these regulations to be done by experts in this sector who have deep understanding of technology involved in ICOs. He said:

"Basically, I would say something like, I agree there should be regulation and regulation by people who understand that technology in depth so that they do not harm it without aiming to."

He further elaborated on this:

"What I would say in that is the fact that you know, yes, regulation but regulation from people that actually understand the topic in depth and having people of a certain age that they may think that they know how the traditional financial instruments work, but they do not understand how this technology works. And they regulate it in such a way that it just kills the whole industry and makes it identical to centralised finance etc." - Mr S

With ICOs still been in the early stages of global adoption, a participant described the need for the global economy to debate the direction for the sector rather than the focus on stringent legislation. He described that this would help in developing systems which could be used globally. He said:

"First of all, to discuss internationally among the global economies where we want to go with the sector rather than immediately focus on stricter legislation. We also see that the scale of these activities, while growing immensely, is still not a threat to the financial stability of most developed markets. As a results, now might be the time to dive deeper and find out what do we wish to do and build systems that are interoperable across the globe, rather than immediately imposing our own rules and getting meshed up in a patchwork of regulations across the globe for a global currency."
- Mr A

Another participant mentioned that having a common legislation across the globe might be difficult in the short term due to the dependence on many governments determining a consensus, but it has its benefits on the long term,

"I would say across borders would be the most effective one, but in short term, it would not be effective because you have many governments come together and bring up a consensus of how to do that. On long term it will be."

He explained how this can be achieved:

"So, what I would say like in short term, it would not be easy to come up with something like this, but in long term it will be the best way basically to create perhaps a global blockchain console perhaps with like specialised one, which would be able to legislate and create really proper way of regulating industry in a global state." - Mr S

He acknowledged that some cryptocurrency regulation existed in the US but in Europe this is not the case as the European Commission is currently working on a common legislation. He said this could have a domino effect across other jurisdictions:

"Once you pass those factual differences, which you need some way to debate among regulators themselves, then you get to the legal difference's asset with a common civil law kind of approach, we see some countries such as the US who say, our current cryptocurrency legislation is already in place because we believe that existing financial regulation already applies to cryptocurrencies. We see this far less in Europe, where some countries are scrambling to come up with their own crypto asset regulation. We see Germany by a pioneering some regulation, for example, with regard to collateralization, with tokenization of assets, whereas others are rather holding back because a common legislation for the EU is coming up in a few years with the market crypto assets regulation proposed by the European Commission. It is possible that as soon as one of these big regulations is finally fully launched and in effect, that other jurisdictions might take this over."- Mr A

A participant described that as the sector advances and the community around it acquires more knowledge, this will have an impact on the regulator as they come to a state of acceptance of this new technology and may lead to a partnership is determining the rules or guidelines to be put in

place instead of pressuring this business with strict rules due to their innovative approach that doesn't fit the traditional business concept:

"I think that as the space matures and as the community becomes more aware, and more educated, and the regulator's themselves learn to accept these new modes of this that we will reach this point where partnership by necessity is going to dictate the rules of the game, rather than trying to force these rigid structures on companies because they don't fit the traditional definition of companies". - Mr E

As the conversations and debates on legal and regulatory framework are going on, a participant noted that the success of this sector may be dependent on these elements:

"But you need a bit of more, I think regulation, standardisation, stability building in order for it to succeed." - Mr G

4.6 Future of Tokenization

The findings show the participants' thoughts of the future of tokenization. A participant spoke about the possibilities tokenization could offer including efficiency gains and ease of bringing assets classified as complex to bring on the market:

"I think tokenization allows for far superior markets and things we know today. So, I think both as a buyer/seller in terms of how quick your transactions is going to settle, clarification, the programmability as well. So, you will not need a third party to make sure that obligations are being met or custody or whatever. I think there is going to be some big efficiency gains. I think certain assets that are very difficult to bring to the market are going to be become a lot easier." -Mr A

He further mentioned the future of tokenization used as a source of financing where investors will use it for buying and selling from other investors. However, he noted that he sees it as a mechanism to improve traditional financing rather than create a new one. He said:

"I think tokenization is going to be highly important for raising capital also for secondary markets. It is undoubtedly going to be a next step however I think that it will be a way to facilitate the traditional finance that we know today rather than unlock an entirely new way of functioning. So, I think it is a technical improvement rather than one fundamentally checking finance"- Mr A

A participant described that token, in this sense, are multi-purpose devices that can also serve as a governing function within a company. This can also influence its future use. He explained:

"So, you can set up a financing product, you can set up a fundraiser, but you can really connect to it in the future governance and making utilities are making services or connect services to your core token holders and things like that. So, the usage of tokens becomes useful in the future "- Mr J

Another participant speaking on the future possibilities of the access to finance that ICOs presents for developing economies. He describes these economies have the opportunities to adopt this technology from the grassroot upwards and as a result enjoy benefits like cost savings and grant them the financial empowerment they need. He explained:

"Especially with respect to access to finance, I think that developing economies like for example, I'll say Africa specifically because it's the continent and it has an opportunity to adapt all these things from the ground set. It doesn't need to go through those processes that West Europe did or that North American did, and then now must switch, it can just go and accelerate in the tokenized future from the ground up. You know how much that's going to save trillions, trillions in costs in the future is going to give people the empowerment that they need and the access to finance and ultimately a single source of truth." Mr E

An interviewee speaking on the future of tokenization mentioned that it is going play a very huge role in humanity with the potential it offers for tokenization of all types of assets and create investment opportunities for everyone. He reflected:

"I would say that tokenization is going to be in the coming years the most important thing, one of the most important things that has happened to humanity. And I'll tell you why, because one of the things, when people think about cryptocurrencies they mainly think about Bitcoin, some of them think perhaps of Ethereum, but the thing is that you can tokenize any asset class."

He further mentioned that:

"And it allows also for people for instance, in terms of in terms of real estate, if someone doesn't have the money to buy a whole house, but they do have 100 0euros, they allow them to buy a percentage of the house. So, it opens investment opportunities for everyone. And that's I think why it's going to be one of the things in the coming years and beyond like in terms of centuries, you and I is going to be one of the most important things that have happened to humanity."

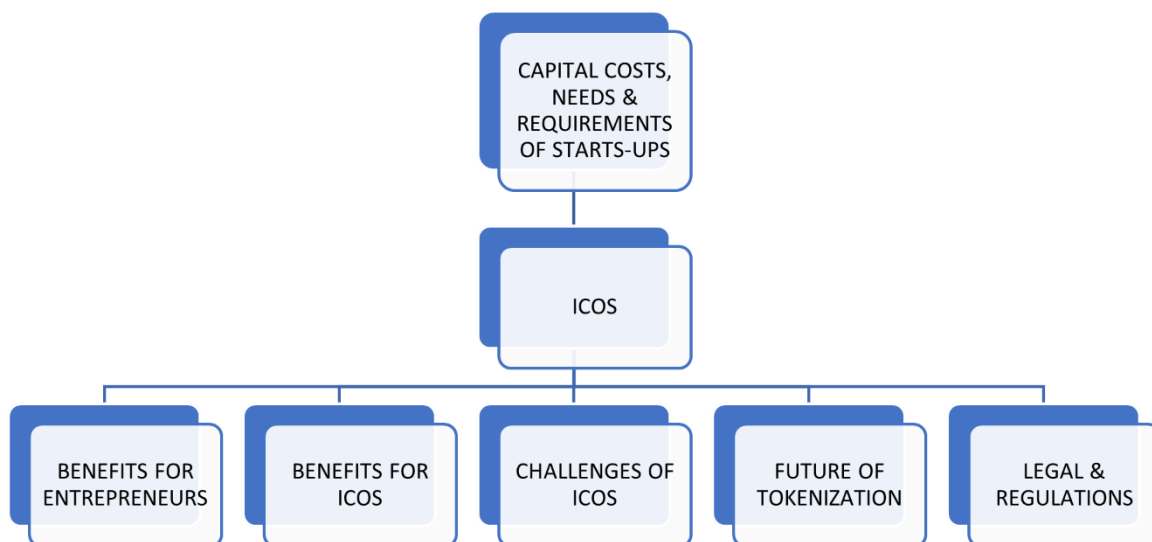


Figure 10 : Hierarchy of Findings

5 Conclusion

The goal of this study was to answer the research question: **‘What are the benefits, motivation and challenges of initial coin offerings using cryptocurrencies as an alternative form of financing?’**. The research offers an in-depth qualitative investigation into ICOs from different stakeholders’ perspectives of the benefits, motivation, and its challenges this alternative form of financing offers. The findings present qualitative evidence that explains these factors.

This qualitative research enhances our understanding of the reason behind entrepreneurs using ICOs as an alternative form for financing against the traditional financial institutions. The findings show that they are daunted by the high capital costs and requirements from these traditional financial institutions including high interest rates and payments to be made which resulted in cash outflow for the businesses. The lack of credit history further reduces the chances of accessing funding from traditional financial institutions and thus the need to explore alternative forms of financing.

Our research confirms previous research that entrepreneurs or businesses are motivated by the benefits they derive from ICOs include access to financing, ease of raising capital, access to a global market. The findings highlight the benefits the community around the blockchain offers like building with a community focus and leveraging on this community. In addition, it explores the flexibility tokenization offers entrepreneurs in pulling in funds in fractions unlike the traditional institutions while allowing entrepreneurs to gain added benefits from the sales of projects products.

The findings of this study also show the benefits that investors gain from participation in an ICO. These benefits include the low investment costs, democratization of funds and ease of entry, diversification, the access to invest in new projects and be part of a new technology. The findings also present the additional benefits that investors stand to gain from ICOs.

This paper analysed the challenges of ICOs with frauds or scams projects being one of the key challenges plaguing this financing mechanism. Others were the lack of transparency about all the what the projects entails and the anonymity. There is an argument that the anonymity has its negative and positive side for investors as well as regulatory authorities. Given that initial coin offerings is a decentralized financing mechanism that involves the participation of the project initiator and project investor. It is therefore important to understand the benefit it offers both entrepreneurs and investors as well as its challenges.

This research makes contribution towards the understanding of the factors preventing the acceptance of initial coin offerings using cryptocurrencies as an alternative form of financing by regulatory authorities. It suggests that the some of the concerns of the regulatory authority include the knowledge gap that exists about the technology as its still pretty much new and therefore there isn’t adequate knowledge out there about. Another factor is trying to understand the regulations that applies to ICOs if existing regulations for other financing mechanism may be used or there is a need for new regulation to be put in place.

This study also lists the challenges of the classification of the different tokens as a factor preventing their acceptance as there are challenges in assessing their legal and regulatory qualification. Our

research suggests the lack of harmonized taxonomy across different jurisdictions results in uncertainty about the regulations applicable. Another factor is the lack of international standardization. Our research proposes that for there to be standardization in ICOs, there is a need for a uniformity in the classification of these tokens.

Our research presents other regulatory concerns from this alternative financing that has brought changes to financing for business. While recognizing that this offers a globalised access to financing, the regulatory authorities are still scrambling with this new technology, have no oversight and therefore regulating it is difficult. There is also the need to have consistency in regulations across jurisdictions in order to have legal enforceability. These findings acknowledge that given that ICOs are a niche sector, there may be difficulties in deciding a broad concept that works well with different financial systems.

This research strongly suggests while there are challenges in participating in ICOs, legal and regulatory concerns that there is a need to have common legislation and regulation framework on crypto assets which will be crucial to the acceptance, growth, and advancement of this innovation approach to financing and in turn increase the level of confidence in this sector while maintaining some level of control.

The grounded theory based on the findings of this research is, **“A regulatory framework that essentially acts as a support system through classification, standardization, scope definition and laws is a key component for the acceptance, growth and development of ICOs”**. There is therefore a need for clarity in the legislative and supervisory framework that applies to ICOs is arguably a first step toward a more secure use of token issuance for fundraising. Policymakers have a responsibility to play in ensuring that ICOs grow in a safe and fair manner, allowing businesses to reap the potential benefits of ICO structures in a viable and long-term manner while also protecting businesses and investors from the risks associated with such structures.

A good starting point in establishing a regulatory framework is the recent adoption by The European parliament on the 14th of March 2022, with the passing of the first European legislation on cryptocurrency assets. In 2020, The Markets in Crypto- assets (MICA) regulation was first introduced to provide a legal framework for crypto- assets in the EU and this regulation defines the set of rules for crypto- assets not covered by existing financial service legislation (Parliament, 2022). It also includes consumer and investor protection rules, supporting innovation and development of crypto assets, guaranteeing financial stability with safeguards and overall market integrity with this framework. The spill over of the effect of this EU legislation is its potential to trigger more legislation framework to be put in place across different jurisdictions as an essential supporting structure for ICOs.

There are important aspects for regulators to take into consideration while making the regulations including investing into gathering the necessary knowledge about this innovation technology. There is also the need for regulatory authorities to ensure information transparency of project characteristics through detailed white papers, projects plans and projections, benefits, and liabilities. This will play a significant role in consumer and investor protection and giving the much needed confidence into this market that will encourage the use of the innovative approach to financing.

It is also important for the regulatory authorities to find a balance between the need for strict legislation to be put in place and overregulation so as not to hinder this niche sector. While ICOs are still in its early years, it has the potential and capacity to work alongside the existing financial systems and revolutionise access to finance globally.

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7 Appendix: Qualitative Interview Questions

Introductory questions: in this block of questions I will be enquiring about your experience with alternative financing mechanisms.

1. But first, can you tell me about yourself: what is your name and what do you do professionally?
2. Can I also ask you to rate yourself on how familiar (1 = not very familiar, 5 = very familiar) you think you are with alternative financing for business projects.
3. According to you what is causing businesses to turn to alternative financing for their business projects nowadays?
4. According to you what is causing businesses to NOT turn to alternative financing for their business projects nowadays?
5. Within the limits of your profession which alternative financing mechanism(s) have caused the lengthiest debates.
6. Why was that?
7. Do you believe that attention to be justified, or would you have preferred resources to be spent on regulating (a)other alternative financing mechanism(s). If yes, please elaborate.

Middle block: I would now like to shift attention to a specific alternative financing mechanism, being initial coin offerings (ICOs).

8. According to you what are the main benefits businesses derive from using ICOs as an alternative source of funding?
9. According to you what are the main challenges businesses face that would like to use ICOs as an alternative source of funding?
10. According to you what are the major benefits ICOs offer investors?
11. According to you what are the major challenges for investors in ICOs?
12. Do you perceive a need for (more) regulation to be put in place to protect investors from these risks that they may potentially face from participation in ICOs? If yes, do you also perceive a window of opportunity for doing so? If you do not see one, why not.
13. As the legal characterization and regulation vary across different countries, is there a need to have a generally acceptable classification of ICO tokens? If yes, in your capacity, what is preventing such a classification from becoming a reality?
14. Given that initial coin offerings are not limited by borders, do you believe in the need for a consensus law binding initial coin offering processes across borders?
15. In your capacity, would you consider ICOs to be a type of crowdfunding?
16. Did crowdfunding-related regulation change as a result of the advent of initial coin offerings as a source of financing? If yes, how? If not, why?

End Questions: Here I will ask you future-oriented questions with regards to ICOs in particular and then I will give you the opportunity to reiterate.

17. How important do you think tokenization will be in the future for capital formation for businesses during and beyond their start-ups stage.
18. What role do you believe regulation needs to play in the development of ICOs as a source of alternative financing?
19. Would you like to add anything? Or reiterate a certain question.
20. Are there any clarifications you would like to make?
21. Do you have any questions for me?