

INITIAL COIN OFFERING

- The phenomenon from a consumer perspective



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Resume

Speciale handler om initial coin offering et fænomen set ud fra en forbruger. Da der ikke er meget akademisk viden om fænomenet og dets karakteristika, vil det undersøges nærmere. Måden det bliver undersøgt på er ved at benytte fænomenet crowdfunding til at karakterisere initial coin offering. Ved at forankere karakteristika fra crowdfunding i initial coin offering, kan det danne grundlag for viden som karakterisere initial coin offering men også vise hvor der er videns mangel. Derfor er der udformet et hovedspørgsmål om hvad der er forskelle mellem crowdfunding og dets undertyperne, og initial coin offering med underspørgsmål for at undersøge blandt andet aspekter som motiver og processen, når en forbruger overvejer at deltage i en initial coin offering.

Det er et udpræget kvalitativt studie med en adaptiv tilgang. Det betyder at fænomenerne bliver beskrevet ud fra en teoretisk tilgang hvor den eksplorative del består i semistruktureret dybde interviews. På baggrund af både teori og fundene fra interviewene, konstrueres der en ny viden.

Først præsenteres noget kendt og relevant afsætningsteori som kan relatere sig til undersøgelsen af hovedspørgsmålet og de tilhørende underspørgsmål. Efter teoripræsentationen, fokuseres der på en karakterisering af de to fænomener med allerede kendt akademisk viden, først crowdfunding derefter initial coin offering.

Ved at holde den identificeret viden om de to fænomener op mod hinanden, viser der sig nogle mangelområder i viden om initial coin offering. Disse mangler undersøges nærmere ved at udføre kvalitative interviews. Ud fra interviewene er der udviklet temaer for det som informanterne har fortalt.

På baggrund af teorierne, karakteriseringen af fænomenerne crowdfunding, equity crowdfunding og initial coin offering, og de udførte interviews, udføres en komparativ analyse. Analysen viser ligheder mellem initial coin offering og crowdfunding og processen. Men især equity crowdfunding og initial coin offering har ligheder. Men blockchain teknologien gør en forskel.

I perspektiveringen ligger op til en definition af en ny type crowdfunding men også nye undersøgelser og anvendelses muligheder for managere og akademikere.

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1 Introduction and objectives

Technology has always interested the human, been part of our evolution and is a big part of how we as civilisation have developed.

There are many aspects of technology, but one technology in particular has had a big impact on our world, society and social interaction in the last couple of decades and that is the internet. And with the internet even more novel technology has emerged. It has developed old forms of communication and ways of exchanging goods, products, services and more.

Web 2.0 has been widely spread and is used for many things also very impotent things in terms of infrastructure as finance etc. One thing which particularly has a need for high security is payment. As the internet has grown so have the number of online stores and ways to trade with each other. With this came a need for quicker and easy payment. Sending a check or cash with the mail can take time and things can go wrong. In order to make quick and secure payments there was a need of an implementation of payment systems. A mathematician named David Chaum invented eCash, a digital payment system that insured safely and anonymously when making a payment over the Internet. It was so promising that Microsoft and others wanted to implement eCash into their software. However, at that time online shoppers did not care enough about privacy and security online to take it into use. Chaum's company DigiCash went bankrupt in 1998 (Tapscott & Tapscott, 2016). But today the perceived need for privacy and security has exceeded the bare need for security connected with payments. Now, this need has changed with the more digitalized every day and work life exposing risk to private and essential data that are accessible online.

In 2008 the world was introduced to the blockchain technology for the first time with the bitcoin blockchain also called the "trust protocol" by many in the community. Who made it is still uncertain except he, she or they, is known under the name Satoshi Nakamoto (Tapscott & Tapscott, 2016). The blockchain with Bitcoin as a vehicle for data, is a novel, transparent and anonymous way to make digital exchanges without the use of a third party for verification. (Adhami, Giudici, & Martinazzi, 2018; Tapscott & Tapscott, 2016)

Back in 2008 the bitcoin blockchain became public as a novel technology and the possibilities of the blockchain was not yet discovered, it had over the years been meet buy a lot scepticism, but is has shown to very stable, not in value, but in terms as security as it has not been hacked. And with the development in bitcoin and the environment tied to it, new ideas has seen the light (Tapscott & Tapscott, 2016).

In July 2013 the world was introduced to a new way of getting funding to a venture when J.R. Willett made the first Initial Coin Offerings MasterCoin (also known as Omni). He was seeking capital for a project where he wanted to develop complex financial functions, at the same time as the crowdfunding a Kickstart.com campaign about Oculus virtual reality glasses. At that time it was illegal to make equity crowdfunding campaigns (Arnold et al., 2018). Equity crowdfunding was

illegal until the American Securities and Exchange Commission approved and implemented the JOBS act from 2012, which first came into force on the 29th of January 2016.

Since then there has been thousands initial coin offerings. Initial coin offering has been a tool used to raise funding for projects by selling coins or token. These coins and tokens can be used, either as a way to get access to the utility of the project or the profit. The profit can come as surplus from the projects or as a raise in the value of the coin or token.

But what is initial coin offering and how do we understand the nature of the phenomenon? The name initial coin offering seems very similar to the term initial public offering and they might share some mechanisms to an extent. But the way an initial coin offering like MasterCoin got funded was through the internet where a lot of individuals participated in the open call. On the face of it this draws some parallels to the funding method we know from the concept of crowdfunding and maybe even to the specific type named equity crowdfunding.

1.1 Research objective

This is an exploration of what the phenomenon initial coin offering is, in the eye of a consumer. As there is not much academic knowledge of this phenomenon available, there is a need to anchor it in something more familiar to get more knowledge about initial coin offerings.

By capturing the limited academic material and knowledge available about initial coin offering there is a basis for using the identified characteristics of the more well-known phenomenon, crowdfunding, to create an analysis of the comparability between the two. That will help clarify in what areas the two phenomena's have their differences and similarities.

The reason for choosing crowdfunding as a specific phenomenon to anchor initial coin offering in, is based on the fact that the core mechanism of the two immediately appear to share some commonalities and maybe a specific type of crowdfunding like equity crowdfunding have even more similar characteristics with initial coin offerings. In example to get a crowd engaged and somehow contribute to the creation or development of a product or service, activated through an open call over the internet and the bond-like share that is the reward known from equity crowdfunding. Elements that on the face of it remind a lot of initial coin offerings.

1.2 Research questions

1. How is the initial coin offering's as phenomenon different compared with crowdfunding the belonging sub types?

- a) How is there a difference in the motivation consumers have or experience when a consumer is deciding to participate in an initial coin offering compared with a crowdfunding campaign?
 - b) In which way is there a difference in the processes when deciding to participate in an initial coin offering compared with a crowdfunding campaign?
 - c) And what signals is influencing the consumer in the deciding process of an initial coin offering?
- 2) What are the barriers and drives for a consumer to participate in an initial coin offering?

2 Method

The study approach presented in this master thesis is adaptive. There is both elements of inductive and deductive though out this study. The deductive approach is led by the use of theories and a quantitative approach, where the inductive approach is seen by the collection and use of primary data. In continuation of the theory is presented and the characterisation of initial coin offering and crowdfunding, there will be conducted a series of explorative interviews. These interviews level of explorative nature, is narrowed down, to answer the research questions within the scope of the theories.

There has been practised a phenomenological methodology in the characterisation of initial coin offering on the base of explorative interviews. With a constructivist approach through the appliance of theories and the analytical comparison for initial coin offering and crowdfunding. On basis of the characterisations of the two phenomenon and the interviews to enlighten the gaps in the academic knowledge of the two. Unlike the realism and positivistic approach, will this constructive paradigm approach seek no objective truth, but a constructed and constantly evolving reality based on sources, analysis and interpretation (Justesen & Mik-Meyer, 2010).

It should be noted that the initial idea of this master thesis was to develop a survey and collect quantitative data to analyse the consumer behaviour. However, in the process it became clear that there was no fundament to build a quantitative study on, as there was no knowledge of initial coin offerings as phenomenon or in relation to marketing and consumers. Therefore, as preliminary measure before a quantitative study, there was a need to establish characteristic and knowledge of initial coin offering and the related marketing and consumers. This is the reason for the qualitative approach applied in this master thesis.

2.1 Master thesis structure

The aim of this master thesis is to answer the research questions in an academic and logical way that was described in this chapter about the methodology. After this chapter there will first be a presentation of the theories, then second a characterisation of both crowdfunding and initial coin offering. These two chapters creates a base of knowledge and shows the gabs between the two

phenomena. Third, there will be conducted qualitative interviews to explore initial coin offering which I will base on the second step and the identified research gaps. Fourth, there will be a presentation of the conducted interviews. Fifth step will explore the findings of comparable elements of the phenomena within the scope of the theory which I will discuss and analyse with the findings of the interviews to answer the three sub questions on the base of the previous chapters. This leads to a sixth step, a conclusion based on the previous chapters' ability to answer the research questions. Seventh is a discussion of where this leaves us with initial coin offering but also academically and managerially.

2.2 Delimitations

The main focus of this master thesis is initial coin offering. In order to uncover the phenomenon initial coin offering. I have chosen to focus on crowdfunding as an anchor to identify and analyse to what extent the two phenomena are comparable.

When taking base in crowdfunding it is interesting what we know about this phenomenon and how it relates to other comparable phenomenon such as traditional investment. However, in terms of theory regarding traditional investment it will in this master thesis only be built on the knowledge found in secondary literature regarding crowdfunding and on what informants elaborated on in that regard. There will not be a general characterisation of investment and how traditional investment is characterised from a finance and classic investments point of view.

Regulation of initial coin offering will not be a focus in this master thesis. It is hard not to mention the regulation of initial coin offering as it is an aspect that does influence consumer behaviour but there will not be a description and analysis of the regulation aspect. This regulation aspect is also related to how there will be a taxation on tokens and cryptocurrencies in general.

it is a choice not to focus on initial public offerings which could remind of initial coin offering, at least in name, in this master thesis as its relation is to a more financial approach than a marketing approach which is the base of this master thesis.

When dealing with the initial coin offering as phenomenon there is a high degree of relation to the technological aspect. As the initial coin offering phenomenon is built on the creation of blockchains it was revolutionary in computer science. This may be the reason that there is more literature in the computer science area then in the marketing area. But the technological aspects in terms of computer science will not be a focus here.

The process of finding individuals to interview was challenging. The communities surrounding the initial coin offering phenomenon tend to be very private. So, in order to actually get informants to be interviewed it was needed to narrow down the criteria for the informants. First it was

anticipated to seek informants with experiences from an example crowdfunding and traditional investments, but as it was only possible to get four informants there was a need to limit the criteria to only one criterion, which was if they have participated in an initial coin offering. This will be explained and clarified further in chapter 5.

Finally, the future for initial coin offering is not clear and uncertain. For example the regulations which are very likely to come may limit the numbers of new initial coin offerings with ruthless impact on the further development of the initial coin offering market. Despite all the present uncertainties initial coin offerings could develop further and become the major vehicle through which ventures acquire early-stage financing and maybe also develop into a crucial mechanism of entrepreneurial finance, perhaps even for established companies.

And then, also new types of initial coin offering like initial exchange offering where the token represent a reward from an exchange, is becoming popular (Coinschedule.com, 2019). However this is no focus for this thesis.

2.3 Method quality criteria

In order to assure the quality of the research there have been included several general criteria, which are common to all scientific research studies (Justesen & Mik-Meyer, 2010).

The first criterion is precision; concepts, theories and methods are precisely defined and used.

The second criterion is consistency; these theoretical concepts are used uniformly throughout the master thesis. These criteria are included in the research by defining the applied concepts, theories, and methods based on peer-reviewed literature and have ensured their uniform application through the master thesis by continuously checking and insuring the specific elements (Justesen & Mik-Meyer, 2010).

The third criterion is transparency; the choices for this master thesis are explicit and well-founded. This criterion is included in the study by constant reviewing of the choices in the master thesis on the problem fields and the methodology, and arguing for these choices (Justesen & Mik-Meyer, 2010).

The last common quality criterion is coherence; there is a clear correlation between the master thesis sub elements (Justesen & Mik-Meyer, 2010). This fourth criterion is included in the study by using a concrete problem formulation and a science-theoretical perspective to form a guideline throughout the master thesis. Furthermore, it is continuously checked that sub-elements in the study are unanimous (Justesen & Mik-Meyer, 2010).

To meet some classic quality criteria there are a number of elements that help quality assure the master thesis (Justesen & Mik-Meyer, 2010). The first classical quality criterion is validity. To meet these criteria, the interviews must match what it claims to research. Therefore, it would be positive for the validity if the analysis of the findings was discussed with the informants afterwards to ensure that the findings are aligned with what informants intended to express, however, that

has not been possible in this master thesis for different reasons in example was it difficult to coordinate it (Justesen & Mik-Meyer, 2010).

Another quality criterion is reliability; to create reliability (Justesen & Mik-Meyer, 2010). For this to be met the methods used should be described objectively and as accurately as possible so that the study can be verified without significant deviations occurring (Justesen & Mik-Meyer, 2010). This is achieved by explicitly describing the study method, including interview guide, approach to interviews, and literary analysis methods.

This study uses triangulation. Multiple levels of triangulation are performed, including method triangulation. First, a qualitative research method is applied in the form of interviews. The characteristics of the two phenomena crowdfunding and initial coin offering are explored and on the basis of selected theories a comparative study of the phenomena is made to illuminate the topic in several ways and to do so in depth. By looking at the subject from several angles, the risk that the master thesis sub elements do not have a connection is hereby minimized. Furthermore, the criterion is included through a selection of the empirical research where it is assessed that the informants are valid sources since they have actively participated in an initial coin offering.

Generalisability in this study is based on the general use of theories not a statistical generalisability known from qualitative studies.

2.4 Analysing approach of the sources of data and information.

Throughout this master thesis the sources from where the foundation is built come from the three different types of sources: primary, secondary and tertiary.

In terms of primary sources, interviews have been used as the primary source for the empirical basis of this master thesis. The interviews are presented in chapter 5.

As secondary sources, I have selected both academic articles and relevant passages from theoretical books and reports in order to assess the correspondence between practice and theory on consumer behaviour and marketing in relation to the master thesis topic on initial coin offering (Jørgensen & Rienecker, 2017). The academic peer reviewed literature was mainly found through the Business Source Complete. When searching the database, 21 articles peer-reviewed articles about initial coin offering displayed, but there was not any related to marketing or consumers. The tertiary sources are found in form of textbooks in the reprint areas, as in economic marketing and consumer behaviour. This has been used to form an overview of this particular academic field (Jørgensen & Rienecker, 2017).

The literature used is the foundation of the construction of this master thesis and therefore the approach to the body of literature that I have selected has been a critical approach. The credibility of the literature is assessed by examining the sources of the authors' publication history and the

articles' recognition through citations, but also the sources used in those publications. The publication year of the literature has been taken into account, in order to ensure the literature is still up-to-date and relevant for this master thesis.

In addition to examining the credibility of the sources it has been assessed whether the peer reviewed articles and the theories, used may contain elements of special interest, including the reason for the why the articles have been made. For example, if the authors or stakeholders have special interests or are biased in their attitude it may affect the validity of the literature and thus also affect the validity of the study, thereby having an effect on the validity of this master thesis (Jørgensen & Rienecker, 2017).

2.5 Research design and data collection method

In order to create a well-informed foundation for answering the research question, several sub questions have been designed to narrow the research area. A qualitative interview method is used to explore how the situations connected with initial coin offering are experienced and how that can have an effect on the consumers in different phases (Malhotra, Birks, & Wills, 2012). In total 4 interviews were conducted and used in this study.

The qualitative data collected, processed, and analysed will form a foundation in order to be able to have a deeper qualitative insight in the consumers behaviour, their experiences and reasons for their choices.

The empirical collection in this master thesis will mainly be in the form of secondary and primary sources of literature. The secondary sources are peer reviewed literature that are used to analyse and find characteristics in initial coin offering as a phenomenon, based on the literature about the characteristics of crowdfunding as a phenomenon. The primary empirical evidence in this master thesis is based on interviews with relevant individuals to illuminate initial coin offering based on experience.

2.6 Qualitative approach

The qualitative approach used later in this master thesis is founded in semi-structured in-depth interviews, which have been chosen of persons that have been identified and selected according to the limitations and objectives defined earlier in the research questions. This will be disclosed and discussed in the chapter 5.

3 Applied theories

The theories that are presented in this chapter are selected for the purpose of exploring and understanding of the two central phenomena in this master thesis: crowdfunding and initial coin offering. The theories that are identified and selected will be a base for characterising the two phenomena and to make an analytic comparison.

The two phenomena will in chapter 4 be explained and characterised through the application of the following theories.

3.1 Motivation

Motives can be viewed as the underlining reason behind a consumer's decision on whether to make a purchase or not. In an overall setup there are two main motivation categories that are the basis of the consumer decision; a utilitarian motive and a hedonistic motive. The utilitarian motive is related to something tangible and with a functionality, whereas the hedonistic motive is related to something more intangible but related to pleasure (Solomon, Bamossy, Askegaard, & Hogg, 2016).

As the hedonistic motive is affected by emotions and is of an intangible nature some characteristics representing different hedonistic motives are identified below:

Anticipated utility	Desire for innovative products and services, expectations of benefits or hedonistic states which will be provided by the product or service to be acquired.
Choice optimisation	Desire to find the absolutely best buy
Negotiation	Seek economic advantages or pleasure through bargaining interactions with sellers in a 'bazaar atmosphere'.
Affiliation	When a social aspect enables a pleasure motive for a purchase.
Role enactment	Taking on the culturally prescribed roles regarding the conduct of shopping activity, such as careful product and price comparisons, possibly discussed with other shoppers.
Power and authority	Entering a power game with the sales personnel and maybe feeling superior to the personnel.
Stimulation	Searching for new and interesting things offered in the marketplace, for fun.

3.2 Consumer journey & touchpoints

Consumer journey is a relevant topic to bring up in order to identify and understand how the consumer experience is throughout the process of participating an initial coin offering. The journey is connected to the decision-making process a consumer usually goes through.

A consumer will go through a cognitive process before making the final decision on their purchase behaviour. This process of five steps is: Problem recognition, Information search, Evaluation of alternatives, Product choice and Post-purchase evaluation see figure 1 (Solomon et al., 2016).



Figure 1 Steps in the cognitive decision-making process (Solomon et al., 2016).

These five steps can be condensed into 3 steps as pre, actual, and post purchase phase (Lemon & Verhoef, 2016). The effect on customers throughout the pre, actual and post purchase stages, still the same where the problem recognition is the trigger to the pre phase of information search and evaluation of alternatives leads to the actual purchase of the product choice and after the purchase a post evaluation. All the steps will have an influence on the overall experience (Følstad & Kvale, 2018).

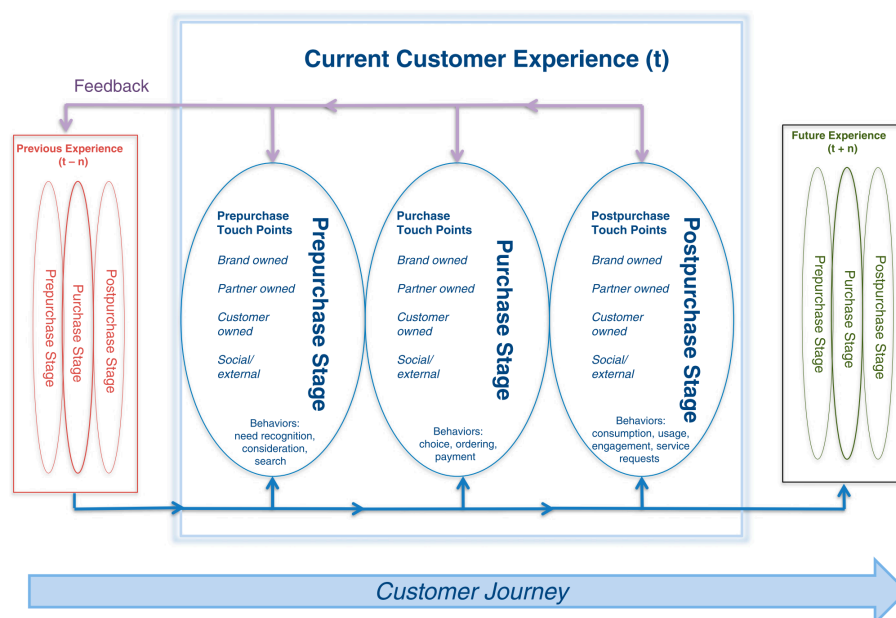


Figure 2 Customer journey (Lemon & Verhoef, 2016, p.77).

Though the journey there is a series of touchpoints in the form of interactions that affect a customer experience, as their journey progresses through the pre, actual and post purchase stages. It could for example be webpages, blogs, and communities (Lemon & Verhoef, 2016). Who “owns” the touchpoints is relevant in regards to whether the touchpoints are Brand, Partner, Customer or Social/externally owned. This is relevant because the owner or owners of the touchpoints also controls what the experience when interaction with the touchpoint is like for the consumer (Verhoef & Leeflang, 2009). This has an effect on the information shared but also on the opinions that influences the consumer in the decision process, especially when the control of the touchpoint is externally owned as in social media and communities.

3.3 Signalling - expressed opinions and behaviour

Signal theory is concerned with a reduction of the information symmetry. It is based on the idea of when two parties are interacting, they behave on a different foundation of information, for example the creators of an initial coin offering and a consumer who is considering participating. The two parties are representing a sender of the signal, the initial coin offering and a receiver of the signal, the consumer (Connelly, Certo, Ireland, & Reutzel, 2011). In the case of information asymmetry there are especially two types that are important, quality and intent. The quality is referring to the information asymmetry when one party is an outsider who is unaware of the characteristics of the other party. In the case of intent, it is important when one party is unsure of the other party's behaviour and intention (Connelly et al., 2011).

There are two main characteristics of effective signals. Signal observability and signal cost. Observability refers to the ability the insiders have to send signals that are notable for the intended receiver and thereby make a deliberate communication. Signal cost refers to the fact that some signals are in a better position than other signals to captivate the associated costs; something connected to great underlying expenses for a sender of the signal for example could be demanding certificates, indicate a high quality, etc. (Connelly et al., 2011).

According to Connelly, et al. (2011) the three elements of the theory is the sender, the receiver and the signal in itself.

The sender of the signal can be perceived as an insider with information on quality and intent that are not available for outsiders. The sender chooses how and what signals to send to the receiver. The signal that the sender can choose to send can be either negative or positive. However, it is usually connected with deliberate communication, where the goal is to express positive signals, in order to motivate an outsider to get involved.

The Receiver is the outside party with the lack of information. They would like to get better information about the sending party, which is provided by the insider through signals. However, there is a conflict of interest as the sending party are directly benefitting from the action if the signal works at the receiver act as expected and wanted.

There are two types of how we overall influence each other. One type is through opinions and preferences which could be represented by word of mouth. The other is behaviour and actions, that can be interred as popular information as it shows what individuals acutely do in a statistical manner.

3.3.1 Word of mouth

Word-of-mouth is not a new phenomenon as literature has already back in 1955 discovered and described word-of-mouth as an interpersonal phenomenon between people. It is part of our social

nature and it help us make decisions, which can be needed for many different reasons in life, and in complex decisions phases word-of-mouth is a highly influential phenomenon due to the trust and credibility the relation creates to name just one reason (Barnes & Jacobsen, 2014; Barreto, 2015).

And in relation to marketing, there has been shown a direct correlation between word-of-mouth and sales. Generally speaking a good word-of-mouth exposure will contribute to a positive effect on sales whereas a bad word-of-mouth exposure will have a negative influence on the sales (Barreto, 2015).

The reason for the high valuation of word-of-mouth is the relation an interpersonal interaction brings as a face-to-face exposure is very strong, especially in combination with an active and dynamic communication. This is a more effective way of communication instead of traditional marketing channels with a tendency of a one-way communication as a passive receiver as we have seen in media such as television, radio, newspapers, and magazines (Barreto, 2015).

As an alternative to word-of-mouth is electronic word-of-mouth. But the difference between the two might not be so big as one could imagine. Consumer behaviour and motives that are acknowledged as relevant for word-of-mouth are also relevant for electronic word-of-mouth (Thies, Wessel, & Benlian, 2016).

Electronic word-of-mouth

The internet has increased and facilitated various options for the consumer to interact, engage and exchange opinions and attitudes about products and services. This specific form of word-of-mouth is called electronic word-of-mouth, which indicates that there is a difference (Thies et al., 2016). In the physical world with word-of-mouth there are persons who will try to cheat or pretend to be something or someone they are not. This will also be the case with electronic word-of-mouth, especially with the challenges to identify others because of anonymity options (Barreto, 2015). And as with the traditional form of word-of-mouth, it was already suggested in 1995 that future commercial success in the online arena would come to those companies that can organize digital communities to support social and commercial needs (Barnes & Jacobsen, 2014). In Industry reports it is indicated that word-of-mouth is "driving" for \$ 6 billion in consumption, however, it is still expected that word-of-mouth accounts for twice the electronic word-of-mouth (Haenlein & Libai, 2017).

One of the main concerns in regard to electronic word-of-mouth is the trust and credibility. These core elements of word-of-mouth seems hard for electronic word-of-mouth to clone (Thies et al., 2016). But research in social psychology and interpersonal relationships & the social cognitive, indicates that if a person exchanges written messages over a period of time, which also applied to written online communication, they are able to form a full impression of the person that is being communicated with (Barreto, 2015). Another aspect of the online communities where electronic

word-of-mouth exists is that there are social aspects that appear clear to those who interact. The social aspects can be quite explicit and clearly affirm an emotional support, a companionship and an experience of an affiliate / relationship. So even though the people in the community do not necessarily know each other directly or personally in the physical world, there may well be a correct perception of others in the group, which leads to a crucial element of word-of-mouth, namely trust and credibility between users online (Barreto, 2015; Haenlein & Libai, 2017).

3.3.2 Herd mentality

We know from studies in consumer behaviour, that it is not unusual to observe a herd mentality with consumers, when they are in the process of making a decision. When a consumer is about to make a decision on whether to buy, it has been shown that when popularity information is accessible and presented, it has an impact on a consumer. This is seen in regard to how other consumers reacted to a product or service in regard to buy, select or download. If a certain product or service has a higher popularity than others, then other new consumers have a tendency to make the same decision as it is a perceived quality, that many others have made the same decision (Solomon et al., 2016).

“everyone does what everyone else is doing, even when their private information suggests doing something quite different” (Sun, 2013, p.1014)

The reason that consumers get affected by this popularity information is that humans have a tendency to determine what is the right decision, by observing what other people think is the right decision. It can be illustrated by the philosopher Eric Hoffer (1902–1983) who said:

“When people are free to do as they please, they usually imitate each other” (Sun, 2013),

This is showing a core element of the herd behaviour. However, the decision for the specific consumer is not always made on the basis of direct preferences of the consumer, the consumer might have been influenced. It has been shown that despite the fact of whether some consumers genuinely like the product or service or not, they choose to make the buying decision and jumped on the bandwagon based on a sociological tendency. This shows how popularity information can affect us as humans. It is very strong but can also be manipulated in order to influence consumers in a specific way (Solomon et al., 2016).

3.4 Terminology clarification

The terminology “consumer” will in this master thesis be used in the description of an individual who is considering participating in an initial coin offering.

It is on purpose the term investor is not used as the individual participating could be anybody with internet. There is no regulated central place that can secure a consumer as we know from the accepted investment world where there are laws to protect an investor.

The consumer is on their own, if they purchase tokens and cryptocurrencies, they are only protected by normal laws to protect individual from theft, cheating and deception.

This way of looking at the consumer also leads to a terminology where the consumer is viewed as participating in an initial coin offering, instead of being a consumer investing in an initial coin offering.

4 Crowdfunding and initial coin offering

In the following paragraphs there will be a clarification of the characteristics of the two phenomena's crowdfunding and initial coin offering. This is to create a base of knowledge of the two and to frame them by applying the theories presented earlier to each phenomenon separately. This is to make a foundation for a further discussion of how comparative initial coin offering and crowdfunding are, or if they are related in some way.

4.1 Crowdfunding

Crowdfunding was and is a revolutionary concept of funding which originated in 2006 during the spread of web 2.0. (Arnold et al., 2018). This could be the reason for a broader base of knowledge and academia's research on the topic. These secondary sources are the foundation for the characterisation and the applied theories on this phenomenon. This leads further to a comparative analysis and discussion on initial coin offering as phenomenon in the next chapter.

Crowdfunding derives from the broader concept Crowdsourcing, where the "crowd" is the essential part. This is because the crowd is making it possible to get access to feedback, ideas to develop business from many individuals. This approach and way of thought has led to the term Crowdfunding because instead of asking for non-monetary resources, the crowdfunding was asking monetary values to form a product or service (Belleflamme, Lambert, & Schwienbacher, 2014).

Crowdfunding has for quite a few years been a growing method for funding or as source of capital, allowing a variety of new ventures. And it has shown to be very suitable for individual consumers as founders and entrepreneurs can request funding for for-profit, cultural or social projects, funded by many single individuals, rather than by a few – hence putting the "crowd" in crowdsourcing. (Agrawal, Catalini, & Goldfarb, 2015; Mollick, 2014).

A definition of Crowdfunding from 2014 states that:

“Crowdfunding is an open call, mostly through the Internet, for the provision of financial resources either in the form of donation or in exchange for the future product or some form of reward to support initiatives for specific purposes.”(Belleflamme, Lambert, & Schwienbacher, 2014, p588)

It is an updated version of the definition from 2010, which states:

“...an open call, essentially through the Internet, for the provision of financial resources either in form of donation or in exchange for some form of reward and/or voting rights in order to support initiatives for specific purposes.” (Schwienbacher & Larralde, 2010, p4)

In the evolved definition there “future product” has been added and “voting rights” removed. In regard to the reward, it can be both monetary or non-monetary, where non-monetary in example covers recognition and voting rights. And in addition it is stressed that it seems to be a common understanding that the main part of funders are from the crowd, as in individuals or consumers, rather than professional investors (Belleflamme et al., 2014).

4.1.1 Crowdfunding types and related motives

The type of ventures, projects or business that are looking for funding to a product, service and/or a public good, though crowdfunding, can have many different backgrounds, sizes and economy. From a single artist with a small project, over entrepreneurs seeking seed capital, to traditional venture capital investments (Mollick, 2014). But there is especially one commonality between crowdfunding campaign and that is that the traditional and online crowdfunding is usually using a central platform hosted by a third-party service provider, and that that provider is the marketplace for many different crowdfunding campaigns. These platforms are usually tightly connected to the type of crowdfunding campaigns that are on the specific platform. It is the third-party service provider that makes a crowdfunding platform available for everyone. To have a crowdfunding platform with a working marketplace, the provider needs to work with third party providers in order to payment and financial services such as banks (Arnold et al., 2018).

In general, there are four different types of crowdfunding which all mostly are suited to different areas, but that does not mean that they are completely different. Sometimes there is an overlap because of the nature of the crowdfunding project but they can all be divided into four categories (Mollick, 2014).

When a consumer decides to participate in a crowdfunding campaign a comparison of traditional financing can be reasonable especially if the crowdfunding types are also divided into the four categories and seen in contrast to their traditional funding counterpart. The traditional financing types that correspond to the four categories are difficult to match perfect. But the terms reward-, lending/debt-, donation- and equity crowdfunding capture the intention with enough accuracy in order to determine similarities (Hoegen, Steininger, & Veit, 2018):

1. Rewards-based crowdfunding:

This is a very well-known type of crowdfunding. In this approach, costumers are funders that will get a reward for backing a project. The type of reward can vary, but it will not be a monetary reward. It can be divided into two groups:

1) this reward is treated like a reward, it could for an example be having an opportunity to meet the founders and/creators of the product or could be credited in a movie.

2) a reward treated, in an approach towards the funder as an early consumer with access to as an example, pre-release of a product, a discount / better price or “special” product with some features (Mollick, 2014). These motives are relisted to hedonistic motives but are on a basic level as they can stimulate a positive feeling but also the choice optimisation by finding a special offer with a uniqueness that is not possible to find elsewhere (Solomon et al., 2016).

There are some very popular platforms for the different kinds of crowdfunding types of which the most popular platforms are Kickstarter and IndieGoGo among others, and it is through these platforms the consumers experience different touchpoints. It is usually though centralised internet platforms within this type of crowdfunding, the specific crowdfunding campaign is accessible (Agrawal et al., 2015; Burtch, Ghose, & Wattal, 2013)

2. Lending/Debt crowdfunding

The idea of the lending crowdfunding models is that in contrast to donations, the funds are accessible as a loan, where the lender have an expectation of a return rate on the investment. However, there is also elements of the patronage model mentioned in the donation crowdfunding, in the sense that the lenders, especially of micro loans, are interested more in the social good of the venture then the actual return (Mollick, 2014). So, in this case it is to some extent a utilitarian motive with a presence of hedonistic adaptation tendencies. The underlying motive is found in doing a good deed that is likely to make a profit (Solomon et al., 2016).

3. Donation-based crowdfunding:

The donation-based crowdfunding could be for art or humanitarian projects where the consumers who have funded the campaign, have no expectation of getting anything in return. The consumers are a kind of philanthropist in this patronage model (Mollick, 2014). There is a tendency that some donations come from individuals that have an expectation of becoming future consumers and by donation they help the creator and/or founders continuing on the work. This is opposite to where the consumer would make a donation there is connected to not-for-profit in example Red-cross (Belleflamme et al., 2014; Burtch et al., 2013) This means that the hedonistic motive connected to the positive emotion released when making a donation.

4. Equity crowdfunding:

Equity crowdfund have some differences compared to the other crowdfunding types and therefor academia proposes a more specific definitions of equity crowdfunding:

“Equity crowdfunding is a method of financing, whereby an entrepreneur sells a specified amount of equity or bond-like shares in a company to a group of (small) investors through an open call for funding on Internet-based platforms” (Ahlers, Cumming, Günther, & Schweizer, 2015, p. 957).

Equity crowdfunding is supposed to be equivalent to shares or bonds like securities. This implies that there will be an option for an after- or secondary market and an expectation of future profit, whereas the other crowdfunding types are offering a reward as a product or service. This is a single transaction. Equity crowdfunding is offering a product or service where the profit may be found in the secondary market and not as a single transaction (Belleflamme et al., 2014). This indicate that a utilitarian motive is present and dominating when a consumer participates in an equity crowdfunding as it seems like the only motive to gain a profit.

But this is also the crowdfunding type with the highest level of regulation (Mollick, 2014). In April 2012 the “Jumpstart Our Business Start-ups” Act passed in USA, it was made for a reduction of regulatory restrictions when raising capital for early-businesses and small businesses, also minded for the Equity crowdfunding (Mollick, 2014). However, in accordance to Agrawal et al. (2015) there were some difficulties in legalizing equity crowdfunding investments by non-accredited and non-professionals investors. It took more than two and a half years before SEC adopted rules in regards to crowdfunding and made them effective from October 2016 (SEC, 2015). Mollick (2014) points out that the crowdfunding market in mid-2013 was 5 percent of all crowdfunding investment, this states how absence of regulation can lead to alternative thinking in the funding creation and a new way to get consumers to participate in such ventures:

“...shares of future profits or royalties; a portion of returns for a future planned public offering or acquisition; or a share of a real estate investment, among other options” (Mollick, 2014, p3).

So in relation to mentalities of motives there are two in play, one with an idealistic approach at times with element of hedonic motives and philanthropy and the other with a more utilitarian and raw profit driven approach, the profit driven is often seen in equity crowdfunding (Adhami et al., 2018; Mollick, 2014).

4.1.2 Crowdfunding participation

In a world with almost endless possibilities to consume, donate or invest, the savings, there could be many reasons that could make a consumer decide to participate in a crowdfunding campaign. The internets have massive possibilities of social interaction between consumers, their peers and other consumers, though social networks, blogs, online forums and review platforms. These possibilities have become a part of the touchpoints the consumers interact with and affect the consumer behaviour and decision making. The benefit for the consumer in these interaction possibilities is reducing the information asymmetry between products and/or services and the quality, which can be very difficult to assess before the purchase (Thies et al., 2016) But these are also possibilities for the initial coin offering to send positive signals. When consumers participate in crowdfunding campaigns there are often two mentalities in play.

In crowdfunding campaigns, the primary sources of information consumers have, as fundament for their purchasing decision, is the content touchpoints the creators of the crowdfunding campaign present on the third-party crowdfunding platform. The information is rarely validated by the crowdfunding platform or by a third party. This information can take form as short videos that shows the creators, ideas, a prototype or the product. And could also be other perspectives on the campaign. This is an approach where created content gives the potential consumer a foundation on which to build an opinion and attitude towards the campaign and the signals are sent. However, it is biased. First, it is one single source of information. Second, it is made and presented by the creators of the campaign (Thies et al., 2016). So, this may be a reason consumers behaviour is seeking other parameters to evaluate and decide what is perceived as the best choice. Because in the balance of risk and reward, the information coming from the founders and creators is characterised as base for a high information asymmetry.

It is found in literature that offline investments in early stage ventures often is related to a local "relation", in other words a short distance, as it is through the local interpersonal interactions between individuals a certain level of reputation and trust has been built up, which can be motivating and encourage the funder to participate. It has been shown that local funders are more likely to participate earlier in the fundraising cycles. Reasons for the impotence of the local aspect should among others be found in the absence of regulatory disclosure and oversight (Agrawal et al., 2015). This is contrary to traditional funding where there is a strict regulation and due diligence is replacing the trust as seen in crowdfunding models (Catalini, Agrawal, & Goldfarb, 2014).

4.1.3 Crowdfunding compared to traditional financing

If focus, in example, is on equity crowdfunding, it become clear it shares some of the same ideas and characteristics as with traditional funding (Hoegen et al., 2018). There are overlaps in the decision criteria form the consumers perspective, but there are also big differences between the two phenomena, crowdfunding and traditional finance.

The product or service has to show some general benefit to appeal to the consumers or traditional investors who will potentially participate in the equity crowdfunding campaign, this is important because it can create an initial interest in the campaign and investment. Regarding due diligence towards intellectual protection, differentiators and attributes, these are elements that affect a consumer who are considering participation in a crowdfunding, but it has less importance compared to traditional financial investors. It is the same case when consumers in crowdfunding campaigns assess the financial numbers, as they do not consider it to be as important as a traditional investor does in traditional finance (Hoegen et al., 2018). This could be based on a consumer that are potentially participating a crowdfunding campaign, has less competence to understand and interpret business and financial documents and have a lack in access to business information, than it is expected for a traditional investor to have (Hoegen et al., 2018).

Literature has found one common factor that have a stronger impact on all crowdfunding types compared to traditional funding and that is the social capital including both the founders and the behaviour of other founders (Hoegen et al., 2018). And, in general, the characteristic of a small investor as a consumer is that they are purchasing for relatively small amounts and receive accordingly small stakes in the company as well. Seen in the light of the small investment, using great amounts of time to assess the investment in terms of assessing the team, doing due diligence and other ways to evaluate the investment, only make sense if the profit exceeds the time and resources spent. Small investors as consumers may also lack financial experience and sophistication in valuing the investment and teams, where professional investors and venture capitalist are highly knowledgeable and experience (Ahlers et al., 2015)

There is also more significant differences between traditional funding and crowdfunding funding as there are differences between the various types of crowdfunding. When focusing on major differences between traditional funding and crowdfunding there has been found evidence for three systematic differences in factors influencing the decision making and the decision process. But also, drivers of the systematic differences are seen between crowdfunding and traditional finance.

Of factors that are influencing decision making, there are three systematic differences: Social capital, substitutes and ubiquitous contextual impact.

The three differences do all relate to some social aspects. Ubiquitous contextual impact is closely tied to technology concerning third party as they are often the suppliers of the digital platforms where the design and channels are important elements when signalling through a crowdfunding campaign. Both Social capital and Substitutes differences (see figure 3) are more directly related to direct social dynamics as they depend on individual and community. The three differences are all valid in the eye of the consumer as it is elements that are minimising the perceived uncertainties and risks in crowdfunding.

Difference	Description
Social capital	<ul style="list-style-type: none"> • High influence of social capital, especially status and reach on social network sites • Social capital is critical to create investment dynamics through herding
Substitutes	<ul style="list-style-type: none"> • Investors have to substitute for lack of data, trust and experience <ul style="list-style-type: none"> ○ “Wisdom of the crowd” bundles skills and knowledge of many individuals ○ Following others replaces own judgment ○ Likeability, emotional reaction and other soft factors replace hard data ○ Campaign statistics provide hard data to use in decision-making
Ubiquitous contextual impact	<ul style="list-style-type: none"> • Different and more ubiquitous contextual impact of digital technology <ul style="list-style-type: none"> ○ Digital platforms are at the heart of the investment process ○ Platform design and features influences decisions ○ Investment through digital technology (e.g., computers, mobile phones) shapes perception and investment behaviour

Figure 3 Major differences in the influencing factors between crowdfunding and traditional financing decisions (Hoegen et al., 2018, p.355)

The three differences are systematic between the all crowdfunding types and investments types and can be seen as chronological. First, the social capital is important as it is crucial for the crowdfunding campaign to profit from the social dynamics. Not only is social capital from individuals important in this aspect but it is also a way to gain awareness for the campaign in order to attract as many early participants as possibly. The early participants are important as they in interplay with the platforms that are connected to social networks, that way they can create a buzz which can act as a multiplier for the number of participants. Second, the crowd needs some substitution for different lacks for example general information asymmetry about the team and their intentions but also because of their low level of investment experience. In the search for information the consumer will listen to the wisdom of the crowd but also evaluate every visible behaviour, reaction and character shown by the team, which have great importance for the outcome of the campaign as it is a signal of trustworthiness that should substitute the lack of information. It should be noted that also popularity information as statistics from the platforms can act as a substitute for the lack of information. These substitutes are foundations for creating trust in the team. The third difference is the ubiquitous contextual impact, which for example could be how the information is presented in apps on smartphones in terms of visible design. This is not what an investor as a “homo economicus” would see as important. (Hoegen et al., 2018)

4.1.4 Crowdfunding process

The three differences have a direct impact on the “crowdfunding decision making framework” presented by Hoegen et al. (2018), see figure 6. The framework layout of the categories that a

consumer is influenced by and to what extent are here rated as strong, medium, and weak impact. Also, the traditional finance categories are present and rated but with no any real impact. The three differences between crowdfunding and traditional finance have an impact on the influencing factors. The differences are seen in strong correlation with the categories in regard to social capital and contextual impact which are showing a strong difference compared to traditional financial decisions figure 4.

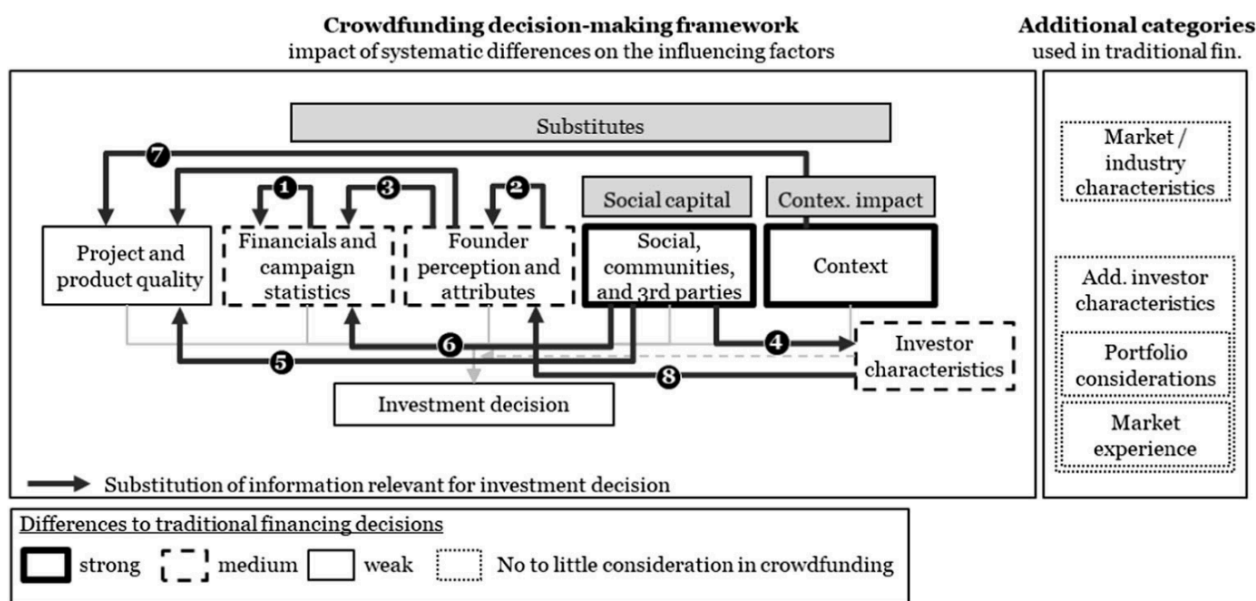


Figure 4 Crowdfunding decision-making framework (Hoegen et al., 2018, p.355)

This emphasise the impotence of the three systematic differences, where especially the social characters are salient. With medium rate of consideration of the difference to traditional financing decisions there are two categories that are also having impact; founder perception and attributes, and financial and campaign statistics, which also are supported by the substitutes differences see figure 4 (Hoegen et al., 2018). Those two categories are also categories that are relevant to have in mind when creating a crowdfunding campaign as the categories are trying to substitute valuable properties or intellectual rights. The substitution is of the trustworthiness and competences that the investor has access to in traditional investment with visible attributes and competences of the founders in crowdfunding campaigns, is replaced with statistics and popularity information on the project with the lack of financial and product quality information.

The traditional five step cognitive decision-making process differ in comparison to the decision-making process in traditional start-up financing, where there are six steps according to Hoegen et al. (2018). In the decision-making process a consumer will go through a cognitive process before making the final decision relating their purchase behaviour and as with a consumer journey the end step of the decision process a consumer usually is going through is the evaluation whether a product was actually purchased or not. (Følstad & Kvale, 2018; Solomon et al., 2016).

But the differences in the process already begin at the first step where there is a difference between crowdfunding and traditional financing. As there is a process of seeking and browsing of prospects in crowdfunding where instead in a traditional financing process the investor is going through a collecting and vetting process (Hoegen et al., 2018). The next steps, which also represent the pre phase of the consumer journey, have some of the same characteristics except step four in the five-step cognitive decision-making process, where the product choice leads to the purchase action. This step is in a traditional financing process divided into two steps: Due diligences, and Individual negotiation and deal structuring. These are in the decision-making process of traditional financing crucial as they are ensuring and signalling trustworthiness and competences, but as they are not present or available in crowdfunding campaigns, there is a need for supporting the consumer in the decision, as it is not a part of the pre phase of the journey. This is where the ubiquitous contextual impact has its role to play and is a systematic difference that is complementary to the decision-making process in the due diligences, and Individual negotiation and deal structuring steps, see figure 5 (Hoegen et al., 2018).

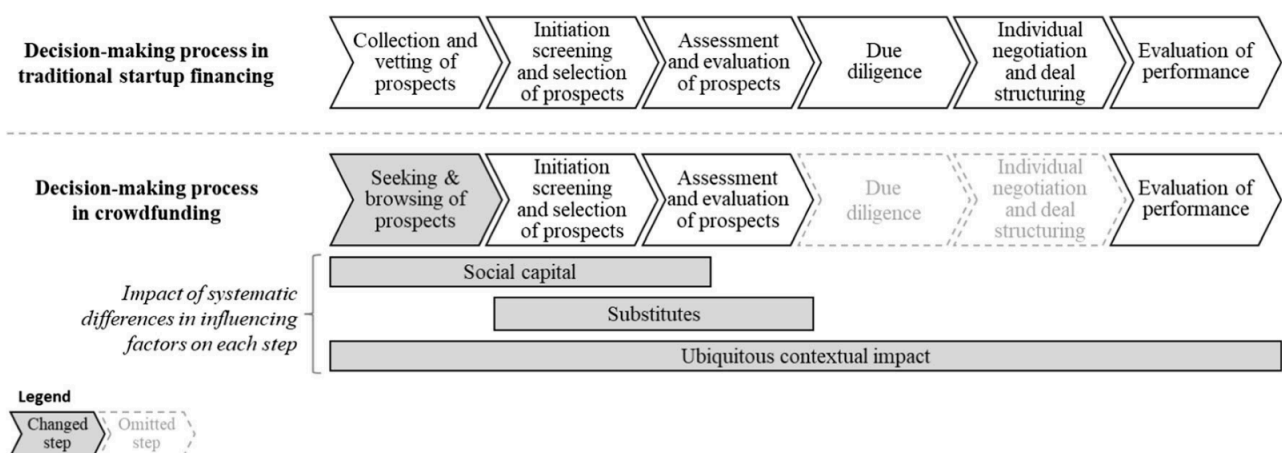


Figure 5 Comparison of decision-making process for crowdfunding and traditional startup financing (Hoegen et al., 2018)

The systematic differences between traditional funding and crowdfunding are all driven by three fundamental properties that are the characteristics of the crowdfunding campaign. The three properties are: the limited access to the founders and reliable data about their venture, the underlying digital technology, and the openness to a wide target audience (Hoegen et al., 2018).

Limited access is referring to the amount of collateral and reliable hard data of both the team members and the crowdfunding campaign. This is also the limited access to valid data as it often is hard to verify, or it is misinformation and lies. This lack in reliability information causes the consumer to seek substitute and compensate (Hoegen et al., 2018).

Digital technologies act as mediator between those who buys into the crowdfunding campaign and founder because it creates a platform for the crowdfunding campaign but also a high level of

transparency. Digital technologies expose the actions of the creators of the crowdfunding campaign and also the actions for the consumers as a global audience. Regarding open contributions this approach leads to a wide variety of participant from different regions of the world with different cultural backgrounds.

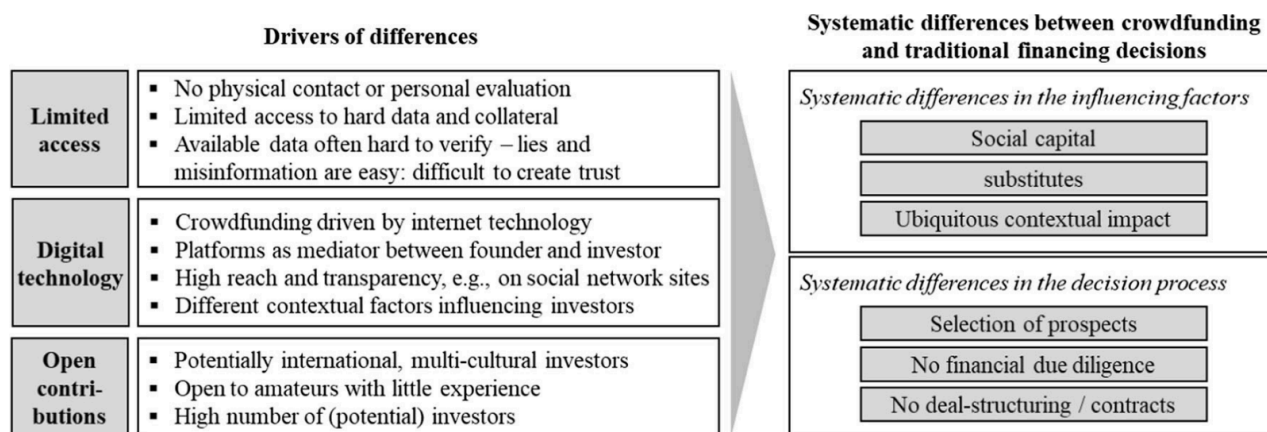


Figure 6 Drivers of differences between crowdfunding and traditional financing decisions (Hoegen et al., 2018, p. 357)

These drivers of differences between crowdfunding and traditional finance are inviting for armatures with limited experience with investments. With the lack knowledge and sophistication as professional investors and venture capitalist, the consumers with armature investments skills are forced to find substitution in some other form. With this high variety in the audience the lack of ability to direct communication and individual negotiation, and the need for finding the substitution is found in the signals regarding the crowdfunding.

4.1.5 Consumer behaviour and signals in equity crowdfunding

The decision process for consumers is often, simplified, a process of discovery, purchase action, evaluation, review, and influence potential new consumers. But as we know, in a crowdfunding campaign the difference is even greater than what was discussed earlier in comparison to traditional financing. Other differences are based in the fact that the product usually first will be accessible long after an equity crowdfunding campaign has ended. And that is if the product or service ever gets to the consumers or market at all as Thies et al. (2016) emphasize.

This is a reason that consumers influence other potential consumers as the process beyond the purchase action is not as visible as there is no product to evaluate, review, and share opinions about. And as a crowdfunding campaign usually this is a one-time event, there simply is no review available to potential consumers because the product has not yet been launched. This is only enforcing the need and relevance social interactions in contradiction to traditional measures where a business builds up and maintains their reputation (Thies et al., 2016).

When participating in equity crowdfunding campaigns there are three elements that have a negative influence on the consumer decision because in an information asymmetry; the consumers do not fully understand the campaigns risk, what the teams and creators' competences are, and fraudulence (Catalini et al., 2014). In most cases when a consumer and small investors are considering investing in start-up on equity crowdfunding platforms, they do not have the means and ability to make extensively due diligence, research and to assess the potential of an eventual investment (Catalini et al., 2014; Hoegen et al., 2018). Therefore, in order to have a successful equity crowdfunding campaign and "help" the consumer in the decision whether to purchase the investment in a start-up, other companies are making an investment in an equity crowdfunding campaign. The equity crowdfunding campaigns creators or founders have to communicate clearly to the potential consumers and small investors and send the right signals (Ahlers et al., 2015).

The creators of the equity crowdfunding campaign have to be able to handle, make, and give clear signals to the consumer as a company would do towards a potential consumer about their value and venture quality. It is crucial and very important for the equity crowdfunding campaign as the signals and attributes of a venture's quality are elements that have been shown to have a significant effect on the success of the equity crowdfunding process. The reason signalling these kinds of reinsurance is so important to the potential consumer who may participate in the crowdfunding campaign is because of the nature of equity crowdfunding and all its uncertainties. Especially for equity crowdfunding there have been found evidence for a need to send a signal of the quality of the venture (Ahlers et al., 2015).

It has been found that there are three elements that have a positive effect on minimizing the risk when considering participating in an equity crowdfunding campaign. The three elements are helping to minimise the information asymmetry and the ability to signal positivity toward the consumer. Based on their positive effect on consumers in the investment decision process the three elements are: reputation signalling, rules and regulation, and crowd due diligence, these are topics that need special attention in order to get the best results of the equity crowdfunding campaign (Ahlers et al., 2015).

4.1.5.1 Opinion-based or preference-based, and action-based or behaviour-based interactions.

The differences between traditional financing and equity crowdfunding and their drivers, both throughout the process of the campaign like with the consumers behaviour and the signals, can all be characterised as opinions or preferences and actions or behaviour.

There are especially two important, prominent, and salient quality indicators, that crowdfunding platforms use. These indicators could be described as: Opinion-based or preference-based as in electronic-word-of-mouth which is direct consumer comments or how much the campaign is being shared for example on Facebook. And then there is action-based or behaviour-based, a popularity

information, it could in example be a display of how many participants a crowdfunding has attracted. (Thies et al., 2016)

This is illustrated in figure 7, where a construct of the influence of “others’ opinions” and “Others’ behaviour” is displayed with connection to the final funding decision in crowdfunding campaigns. The connection illustrated in the figure will be characterised in the following.

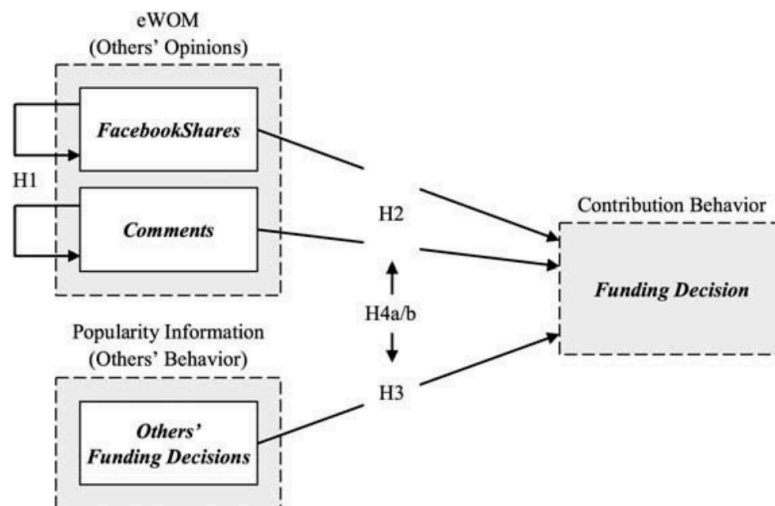


Figure 7 Effects of social interaction dynamics on platforms (Thies et al., 2016).

4.1.5.1.1 Direct communication, a preference-based or opinion-based social interaction. When consumers are in the process of making a buying decision, the opinion from friends and family can be a big part of the buying consideration, as they have an influence.

Word-of-mouth and electronic word-of-mouth's influence

As introduced in the theory chapter, word-of-mouth is an opinion and attitude-based way of influencing each other. Word-of-mouth and electronic word-of-mouth are very effective ways of influencing each other. It is interesting because the influence of positive word-of-mouth have a strong correlation with the customer purchase decision process, ending up with an effect on an actual purchase. This kind of influence of course also has an effect on individuals when considering participating in a crowdfunding campaign.

As it is very common for crowdfunding campaigns to be marketed and accessible digitally online, which in some way leads to electronic word-of-mouth.

When examining some of the results of electronic word-of-mouth it has been shown that the volume of electronic word-of-mouth has a significant association with sales. When a consumer is influenced by electronic word-of-mouth there are two sequential cognitive process which are awareness and persuasiveness. Whereas awareness is the volume of electronic word-of-mouth as

more consumers are likely to receive the electronic word-of-mouth. The persuasiveness relies on the cognitive evaluation of the content in the messages and its credibility via the valence and the social ties the consumer have with the sender of electronic word-of-mouth (Thies et al., 2016).

Literature finds that electronic word-of-mouth affects the equity value of companies in various areas where there is a consumer decision and even when taking into consideration the risk of investing in a crowdfunding campaign, Thies et al. (2016) argue that it is expected that electronic word-of-mouth is a very important factor for the success of the crowdfunding campaign. So, to gain awareness through social media it is essential to get the electronic word-of-mouth to spread and influence prospective backers, even without further financial investments. These aspects of electronic word-of-mouth will be a help to the success of the crowdfunding campaign also in the light of the strong support literature has for electronic word-of-mouth as leading to more positive electronic word-of-mouth (Thies et al., 2016).

With the new technological tools being developed and available, we have come to a point where tools have been developed to interact and monitor for example brands online, via social media monitoring (Barnes & Jacobsen, 2014). It is much easier to follow, measure and respond to the mention of a brand, than ever before. This gives some great benefits to electronic word-of-mouth (Barnes & Jacobsen, 2014). Especially seen in the light of the positive significance, for example, Facebook shares have on new potential participants.

4.1.5.1.2 Popularity information, an action-based or behaviour-based social interaction.

Where electronic word-of-mouth is tidily related to the exchange of information, in other words preferences and opinions. Popularity information is related to the actions and behaviour based on social interaction statistics.

Herd mentality

As described before the herd mentality is observed when consumers are about to make a decision and they are influenced by popular information. Herding in adoption of technology has shown that an individual follows others when adopting a technology, even when the individual's own information suggests doing something different (Sun, 2013).

The tendency that is present is that the product or service that are more popular than others, have a higher tendency to be selected by new consumers as it is perceived as a quality that many have made the same choice. This choice does however not always reflect the consumer's genuine unaffected intention of buying the product or service, as they are without the influence of popular information (Thies et al., 2016).

“the crowd is subject to herding behavior. Much of the existing research on crowdfunding has emphasized that funders rely heavily on accumulated capital as a signal of quality” (Catalini et al., 2014)

We can on the basis of prior research divide herd behaviour up into two primary categories “uncertainty about the decision” and “observation of others’ actions” (Sun, 2013).

Consumers are most likely to practice herd behaviour when they are uncertain of a decision either because of asymmetric own information or when having incomplete information.

A way to compensate is when a consumer recognizes that many consumers have adopted to the same decision, it will rise the likelihood of potential consumers to make that same decision. But it is not necessarily enough for a herd behaviour since also the identity of predecessor’s matter.

Consumers may turn their attention to certain groups of specific other consumers, where there is a belief that they have better information, and thereby are more likely to make the right decision (Sun, 2013). So, consumers in the decision situation will take their own information as well as information and suggested information by other predecessors’ decision into account before making a decision. If the consumer believe that other predecessors’ consumers have had a higher informational level, they are more likely to disregard their own information and follow the predecessors’. This is for the consumer, a way to both overcome uncertainty and to avoid blame from other who made the decision. (Thies et al., 2016)

Information cascades

One of the essential characteristic in herd behaviour is the connection of an information cascade (Sun, 2013). This is a phenomenon where the consumers completely disregard their own information and what it suggests and blindly follow the herd. This consumer tendency starts as soon as the information of other consumers is perceived slightly better than the information the consumer persists. This can result in more consumers who are in the dilemma of making a decision and they have the opportunity to observe other consumers who has been in the same decision dilemma, with the same uncertainties, but not aware of the underlying motive. They may join, which again can lead to even more consumers joining just because of the predecessor’s actions and then the cascades begin.

Empirical studies have proven the existence of complex information cascades generated between users and platforms, and their dynamic co-movement. Users’ downloads of software, as a behavioural indicator on popularity information, have an effect on the following downloads (Thies et al., 2016).

This may be why popularity information is information that many online vendors use as an indicator for the choices previous consumers have made. The explicit way of showing previous consumers’ decisions and actions by displaying the ranking of a specific product or service, is a tool for the vendors to influence another consumers behaviour. This kind of observable information

can act as a guideline for the consumer in the decision making process, what is perceived as the right decision, and behave accordingly (Thies et al., 2016).

The consequence of herd behaviour can lead to many other consumers starts acting identically, which lead to a cascade effect on the popularity information which again can attract consumers. This is how the popularity information can lead to a herd behaviour (Thies et al., 2016).

4.2 Initial coin offering

Initial coin offering is a relative novel mechanism for finding funding to new and innovative ventures on the basis of new digital technologies. In the past years Initial coin offerings have been exposed to an increasing publicity. Especially the number of initial coin offerings and the raised amounts have brought attention to the phenomenon.

This approach of finding funding is so new that at the moment there is not a widely accepted definition of the phenomenon initial coin offering. But there is made some proposals to a find a definition that capture the main mechanisms of an initial coin offering. One proposed definition could perhaps be:

“an open call, through the Internet, for the provision of cryptocurrencies in exchange for tokens generated through smart contracts and relying on the blockchain technology, allowing the pledger to enjoy an exclusive right or reward or financial claim.”(Adhami et al., 2018, p. 68)

This is a working definition which are also based on working papers by non-published articles. And summed up the quote is stating that; initial coin offering is seen as an open call on the internet where consumers can participate and influence each other in the process of participation. When participating in an initial coin offering the new specific token in the offering is provisioned by the exchange of other cryptocurrencies into the new token. This is on the basis of the blockchain technology, which can allow a transparent exchange. This exchange can enable the creation and distribution of new tokens and cryptocurrencies with smart contract in a blockchain.

For the token issuer, the initial coin offering phenomenon takes place when a new venture is out looking for capital and they decide to raise the capital through an initial coin offering referred to as “crowd sale” or “token sale”. This happens by selling a digital token as a product, a service or in some cases as a security (Adhami et al., 2018). This could be if a company want to develop a new coin, a currency, a service or an app, on the basis of blockchain technology. The token represents a value through its intended way of use. It can be a utility or have the function of a security, these categories are not legally binding as there does not exist a token classification system. In many cases the token is a cryptocurrency which is intended to be used in the token ecosystem as a currency after the initial coin offering (Fisch, 2019).

This is a way of raising capital, that is based on selling digital token, connected to the blockchain the venture has decided to use, to a crowd of individuals. The technology of these ventures is based on the use of distributed ledger technology in a specific form on the basis for the blockchain technology, which will be discussed later (Adhami et al., 2018; Fisch, 2019)

When a consumer decides to participate in an initial coin offering, the consumer is buying a token directly from the new venture, thus there is no need for a third-party facilitator. This direct connection between venture and consumer is reducing or even removing intermediary cost but it is also bypassing and avoiding compliance regulation (Fisch, 2019). The exchange is possibly without a third party interference, as it is a thrustless transaction because of the use of blockchain technology (Swan, 2015). When investing and thereby participating in the initial coin offering there is an expectation of a chance to get a reward or financial claim in monetary value in the future (Adhami et al., 2018).

4.2.1 The development of initial coin offering market

The initial coin offering market is relatively hard to follow and track. There is no central digital platform where initial coin offerings are displayed, and ventures expose their product or service to the market. This means that there is no central place or touchpoints where a potential a consumer can find, get involved, and participate in initial coin offerings. With no compulsory registration of initial coin offerings it is hard to keep track of the initial coin offering market and how much money is going into the initial coin offering market in reality (Fisch, 2019). There are many places to find information and touchpoints, both owned by the initial coin offering but also external owned touchpoints, about initial coin offering on the internet.

In the search of an overview of initial coin offering there are trackers that are more credible sources of information than others. Many of the initial coin offering trackers are manual curated and the data is dependent on users from the community to make the entries. But there are more reliably sources where Coinschedule (coinschedule.com) is one of the more established and reliable tracking sites (Economist, 2017; Fisch, 2019).

In 2016 the market for initial coin offering raised \$0,3 billions. These numbers have been growing to \$4,6 billions in 2017 and reached \$20.8 billion in 2018. In primo 2019, \$0,5 billions have been raised from the crowd in initial coin offerings (Coinschedule.com, 2019). Figure 8, is illustrating the development in numbers and amount of American dollars raised in initial coin offerings, one should note that raised amounts in American dollars is affected by the price development in the cryptocurrencies accepted in the initial coin offerings. But there is also a skewness in the figure 8. The top 10 initial coin offerings have raised \$8.7 billions, where the biggest initial coin offering, EOS.IO, raised \$4,2 billions. This is, in itself, a relative high amount, but furthermore the period the EOS.IO initial coin offering was one year from, going from June 2017 to June 2018, this long period

also affect the skewness of the figure, as the usual initial coin offering period is one month (Coinschedule.com, 2019; Fisch, 2019).

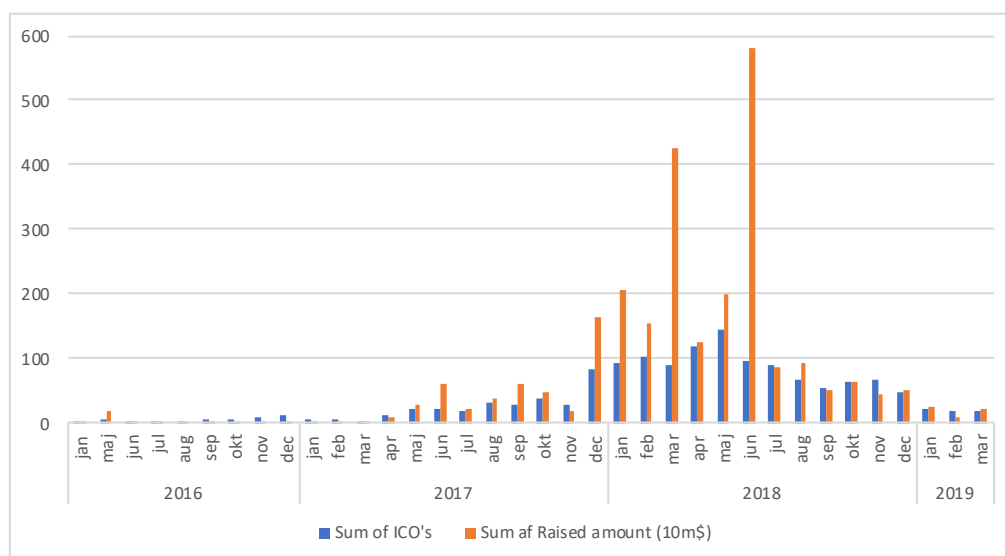


Figure 8 Number of initial coin offering's and amount raised (Coinschedule.com, 2019).

The ability to raise capital may be one of the main reasons why initial coin offering has been able to get out of more or less unknown communities and be able to attract attention and awareness from more mainstream media. This attention may have been a factor in development in both numbers of initial coin offerings and the amount of dollars they have able to raise.

The figure 8 shows a decrease in both numbers of initial coin offering's and the amount raised. Some of this could be explained by the skewness of the figure 8. But it is very likely that there are more significant explanations.

There may be many hypotheses on reasons for why the decrease has occurred. This could be based on a variety of reasons on why some initial coin offerings are failing. A main reason initial coin offering is failing are if the initial coin offering did not raise the minimum funding goal. In most case where the venture has been unable to raise the minimum amount, it has been a general practise to refund the investments – but there are also failed initial coin offerings, that have not made a refund to the individuals who have purchased the tokens. A failed initial coin offering could also be a result of successful hacker attacks or other security issues (Adhami et al., 2018). A heavily discussed issue in regard to failed initial coin offerings is the cases of fraudulent behaviour. This behaviour is referred to as exit scams. An exit scam is when the creators of the initial coin offering, have designed an initial coin offering to scam consumers into investing in the venture. After or during the initial coin offering the creators disappear with all the funding and the inventors have lost all their investments (Fisch, 2019).

These initial coin offerings catch attention and awareness from the media as well as regulators. And as it is the regulators' responsibility to have a regulation that enforces the security for the common man as a consumer and as an investor and prevent people from being scammed the

nature of the different kinds of tokens and their utility is the subject of a big discussion. Especially if they in fact are to be perceived as a security in which case they are under regulation by the government. A way regulators could make policies to counteract the scams is by enforcing publications of quality indicators of the venture, such as the development progress in the underlying technology (Fisch, 2019). That being said, there are a lot of completed initial coin offerings. According to Adhami et al. (2018) the failed initial coin offerings account for 18 percent in 2016 and 19 percent in 2017 (January to august). This could be an indication that consumers that decide to invest are rather insensitive to the regularity issues and governmental protective measures. Another issue in the perspective of regulators is the specific regulation a country has in regard to initial coin offering's, however that responsibility relies on the consumer that decides to invest.

4.2.2 Blockchain technology

It is hard to understand initial coin offering's without knowing anything about blockchain technology. The technology behind the products, services or securities presented in an initial coin offering, as cryptocurrencies, rely on the blockchain technology. One way to define what blockchain technology is, could be:

"... a decentralized transaction and data management technology that enables data sharing across a network of multiple participants" (Arnold et al., 2018, p. 237)

Blockchain technology is the enabling of a decentralized digitally distributed ledger system in an encrypted system (Swan, 2015). The decentralization concept is referring to the spectrum from centralized authorities to decentralized peer-to-peer networks. In a centralized system based on authority where a client needs to connect to this specific authority in order to perform an action such as sending money to other users. Such a system can be developed to be highly centralized where only one authority that could be in charge for providing the service. It could also be developed into a more decentralized system, with a few interconnected authorities taking care of their clients. Where in a peer-to-peer network, users might be still connected to authorities, although they are also directly connected each other around the central point, like in sharing systems (Domenico, De Domenico, & Baronchelli, 2019)

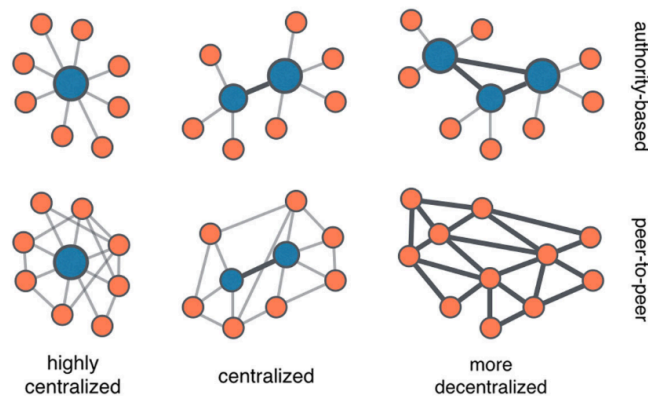


Figure 9 Central vs Decentral (Domenico, De Domenico, & Baronchelli, 2019, p. 2)

A ledger has been a key element of commerce since ancient time. The way we use it, is to keep track and record of many things in example trades, exchanges and properties, but the way we do it has changed from through time. From writing it on clay, papyrus and paper, we have now come to a more digital age, where we use computers, applications and algorithms to keep track of our interactions. And now with the blockchain technology, we can in an encrypted environment share and synchronise the ledger globally on every device connected to the blockchain (UK Government, 2016). This way of synchronising a distributed ledger decentralized, is securing the data as it would not be possible to change the data within the ledger without hacking every single device connected to the blockchain and change their data as well. This is a very secure way of storing, exchanging, and sharing data in a ledger.

The Bitcoin blockchain has been running since 2008 and has not been compromised or hacked yet, according to Arnold et al. (2018), which is an indicator for the security a blockchain technology brings. One could then wonder why all the fuss about people getting scammed and losing their investments. Theses hacks and cyberattacks that reach and become stories in mainstream media are not attacks on the ledger, but on the environment of systems and people surrounding the blockchain. It could be deliberate from the start, creators could be tricked, wallets passwords could have been stolen. It has also happened that central cryptocurrencies exchanges have been hacked and the user's tokens has been stolen.

But all these negative situations are not grounded in the blockchain but everything around it, in fact all the blockchain characteristics are all related to security and to act as a trusted third-party, which is seen in a set common characteristic of blockchain systems (Arnold et al., 2018, p. 237).

- Data redundancy, to ensure persistence among the transactions and data
- Use of cryptography, to ensure data security and integrity
- Use of a consensus algorithm, to coordinate transactions among the network peers
- Decentralization, which enables trusted direct interaction among the network peers
- Auditability, transparency, and verifiability of network activities

So, when consumers use blockchain technology and they are sending data to each other, the transactions are grouped in blocks that are cryptographically and chronologically chained together. Simultaneously there is a consensus algorithm that is running on all of the connected devices or nodes and continuously keeping track and guarantees the right order of transactions as well as correctness, which are all transparent (Arnold et al., 2018; Swan, 2015).

These characteristics and way of use illustrates the multiple opportunities to make new forms of distributed applications upon a blockchain. It could take form as many things, from distributed digital currencies also known as cryptocurrency to digital rights or digital asset management.

Since the publication of the first generation of blockchain in the article Bitcoin: A Peer-to-Peer Electronic Cash System under (Nakamoto, 2008), the interest for the blockchain technology has grown. This has also led to the development of new generations of the blockchain technology (Arnold et al., 2018).

The first generation that got attention was the introduction of the Bitcoin blockchain as distributed ledger technology. That was a breakthrough in computer science as it was the first-time different technologies for distributed network and cryptographic were combined to make the encrypted distributed ledger.

Second generation came with the Ethereum, which meant new possibilities in the distributed ledger. With Ethereum an infrastructure with general purpose programming is possible because of the inherent concept of smart-contract in the Ethereum protocol into the public. So with smart-contracts built into a blockchain technology created the possibility of automatic executed contracts in the blockchain (Arnold et al., 2018). The smart-contract concept is not new. Nick Szabi a cryptographer who was an associate of David Chaum, was the who introduce the idea of a smart-contracts. Nick Szabo defined smart contracts as *“machine readable transaction protocols which create a contract with predetermined terms”* (Lauslahti, Mattila, Hukkinen, & Seppälä, 2018), these processes are complicated and requires highly specialised knowledge to understand in terms of blockchain usage. But as an example, to illustrate the mechanism in its more primitive form a vending machine also makes the transactions based on simple mechanic automation. A vending machine accepts coins, hands out the selected product, and gives back change. The physical design for the vending machine is like a safety box where it grades its products, cash and the set of rules and logic in the “contracts” it makes when a person, who puts a sufficient number of coins into the vending machine to buy the product. This means that the vending machine completes the transaction without need of any third-party, as long the prerequisites are met. And we have yet to see what the third generation will bring, but it will somehow have to make it possible to make decentralized cross blockchain exchange, which would imply that there will be developed a way for different blockchains to interact with one and another, in a decentralized way (Arnold et al., 2018).

4.2.3 Tokens and cryptocurrencies

The reason the concept of tokens is relevant to go deeper into, is found in the nature of initial coin offerings, as there are no initial coin offerings without a token/coin are being sold in, the token is a representation of the product or service which rely on the initial coin offering.

The concept of tokens has a variety of meanings “A) a piece resembling a coin issued for use (as for fare on a bus) by a particular group on specified terms. B) a piece resembling a coin issued as money by some person or body other than a de jure government. C) a unit of a cryptocurrency” (Merriam-Webster, 2019b).

With the base in B as a piece, in this case, of digital code that reassembling a token or coin. This means that the coin can be, based on the blockchain technology, used for many things; it could give the holders of the token a special privilege, as an internal account unit or to facilitate transactions – no blockchain without a token.

There are different types of tokens all depending on what the purpose of the token is. Tokens can be categorised into four groups: Usage-, work-, funding-, and staking tokens (Arnold et al., 2018).

Token type	Description/function
Usage token	A usage token gives the holder access to a digital service, stretching from security to a discount when holding the token and using a service. It is a usage token when the token is needed to access and/or use the associated digital service. A service which is a decentral service with no controlling parties. This is the case with the Bitcoin blockchain, where you need bitcoin to gain benefit of the bitcoin blockchain service. The recourses offered by the bitcoin blockchain is its hashing power (the power that computer hardware uses to run and solve hashing algorithms, which allows transactions and generating new cryptocurrencies on the blockchain (Nicehash.com, 2019)) which secure the users, developers and of cause the blockchain. The value in Bitcoin is by providing the resources mentioned above, which will give people the benefit of a secure public distributed ledger.
Work token	The work token gives the holder the right to contribute with work to a decentralized network, to help that organization to function. A work token could give the users the right to validate transactions and earn a fee in exchange.
Funding token	This token is used to raise funds. A Token, which is provided in exchange for donating to someone who is in need. It can be held or traded for profit on public exchanges like any other token, but the funding token mainly represents pride of ownership

Staking token	These kinds of tokens are also referred to as security tokens, as they represent shares in organisation behind the token and can allow holders to have an active role in corporate governance and it can entitle the token holder to receive dividends derived from the organisation's profits. Since they have been considered securities, the tokens now fall under the regulatory scope of governmental regulators.
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Figure 10 Token types (Arnold et al., 2018, p.242)

We know digital currencies form various places and businesses. As an example, we know digital currency from an air carrier's loyalty programs and from digital games. These kinds of digital currencies can be purchased in the physical world but can usually only be used in the digital world for the specific reasons they are made for, as we know from online games.

But with the development of Bitcoin a new type of currency has arisen called a cryptocurrency. Cryptocurrency is:

"any form of currency that only exists digitally, that usually has no central issuing or regulating authority but instead uses a decentralized system to record transactions and manage the issuance of new units, and that relies on cryptography to prevent counterfeiting and fraudulent transactions" (Merriam-Webster, 2019a)

This new type of technology, enabling digital currencies as cryptocurrencies, is quite different from earlier types of currencies that have been used. The big difference with cryptocurrencies in contrast to known digital currencies is that the issuing of currencies does not rely on a central source like a central bank. And cryptocurrencies enable an exchange or transaction that is trustworthy and does not rely on an intermediate as it is the case with traditional currencies exchanges; there is no need for a bank to verify the exchange or transaction (Arnold et al., 2018). The cryptocurrency relies on a decentralized network with no direct ownership and since it is a relatively new technology and phenomenon is it certainly lacking in some areas. There is no academic knowledge of how decentralized currencies act in terms of high credit, liquidity, legality, operational risks, and its high volatility (Bank, 2015).

4.2.4 The initial coin offering process

At the time there is not a breakdown of the consumer decision process in regard to initial coin offerings in academia, as it is known from the consumer decision process in general. To get an understand of this process, it may be helpful to get an understanding of an initial coin offering from the creator's point of view (Arnold et al., 2018). It can help understand what stages there are throughout the process and how it may have an effect on the behaviour when participating in an initial coin offering.

4.2.5 Steps in creating an initial coin offering

When making an initial coin offering the company or creators behind it are going through some steps during the development and marketing of an initial coin offering, going from the choosing a platform phase until the public initial coin offering phase.



Figure 11 The initial coin offering process (Adhami et al., 2018, p. 249)

1. First the company or persons behind the initial coin offering have to decide which infrastructure they want to use. When making this decision there are two options to choose between. Do they want to develop their own custom blockchain? Or do they want to make use of already existing blockchains.
If developing an own custom blockchain on which a token is issued as a native coin is demanding a lot of resources. This could be a reason for small sized companies to adopt and implement an already existing blockchain infrastructure. This can have some positive effects on barriers, where the ability to attract miners on one's own blockchain could be hard. But in the in the end it's all about the type of initial coin offering, what the purpose is and the ideas it represents, what are the requirements and what does a business case say.
2. When the decision on infrastructure and in regard to business model has been made, then it is time to present and communicate the ideas of the initial coin offering and the underling technologies. This is usually done by publishing a white paper. It varies but usually it contains business plans, revenue streams, partners, and a team presentation. This is also known as the site presentation displayed on crowdfunding platforms homepages (Adhami et al., 2018). The white paper is created by the team behind the initial coin offering, which could make it biased (Fisch, 2019).
The information given to the consumer is the white paper where probably the most important task is to explain the function of the belonging token, the creation process of the token, and how it can be purchased and sold.
3. After making the white paper public, it is time to market the initial coin offering. This is a critical phase in the process, which also can be a long planning phase taking up to months. To generate interest and awareness the creators of the initial coin offering must present the project, ideas and technology to potential consumers.
In this phase the community management is essential and needs to be in order, not only to be

perceived as credible but also actually living up to those expectations. This includes the ability to be present and active in various communication channels so that consumers who have questions will be responded to quickly.

4. The pre initial coin offering is happening before the main public initial coin offering, as the name indicates. The concept is to allow certain groups of individuals, in some cases more professional investors, to buy the issued tokens before the public initial coin offering at a lower price because of the higher risk of participating so early in the process. There is a good reason for making this approach. This is a way to gain resources which can be used parallel with the public initial coin offering, these resources can be used to get more costumers to invest by marketing and promotion, software development, and recruitment.
The success of a pre- initial coin offering can boost the performance of the main initial coin offering.
5. In this step the initial coin offering will be opening for the public to participate in the project and purchase the token at the predefined date. Often it is seen that the numbers of tokens that are being distributed is capped, so only a fixed number of tokens are distributed.

On the face of it, it seems like the process is over. But that is not the case. After the initial coin offering the tokens will usually be listed on cryptocurrencies exchanges which act as a secondary market on public accessible platforms. As the token mechanism facilitates the option for secondary markets, the token can be deposited on an exchange platform where the token can be sold or purchased by everyone, as we for example know from stock trading (Adhami et al., 2018). These secondary markets for initial coin offering are crucial as they can influence consumers who have existing investment or potential investors.

4.2.6 Signals in an initial coin offering

When a consumer is considering participating in an initial coin offering there are some specific areas of information where there is an information asymmetry which creates uncertainties for the consumer and a need for signalling, an issue that the senders should be interested in addressing. The characteristic signals between sender and receiver is the investment risk, the lack of disclosure of requirements and anonymity in the technology (Fisch, 2019).

In order to explain the idea, and the technology and quality behind initial coin offering, the team usually makes a white paper public which acts as an initial coin offering owned touchpoint. This is a signal in itself as the initial coin offering at least live up to a minimum, as it is a common characteristic of an initial coin offering to present a white paper (Fisch, 2019).

When addressing the risk aspect of initial coin offering, there is an understanding that it involves a high risk as is known from American Security and Exchange Comity (SEC, 2017). There are many

reasons for the risk element but is typical for initial coin offering's that they are early stage ventures. And the often in the beginning of an initial coin offering the token do not have as counter value or real-world value and it and the product or service is now developed yet (Fisch, 2019)

The technology and the related environment require a technical foundation in order to understand them fully as the technology is often not directly observable and is maybe too complex for the consumer to understand. There is a need for the consumer to make a decision on the base of observable signals that characterise the underling quality of the initial coin offering. For this the team behind the initial coin offering release as whitepaper.

The quality the white paper shows through the content may differ from one initial coin offering to another. The white paper can also have content that in various ways signals the quality both trough observable signals and intent, as it can act as a substitution for lack of disclosure in the information symmetry.

The white paper will usually explain what the core idea behind the initial coin offering is, what is the technology that is used and how does it work. As this is a high technological area there is an expectation for technology capabilities which makes it an important signal for a consumer (Fisch, 2019).

Signals that could be sent in a white paper, are information about having patents which is perceived as sending a high-quality signal. As patents is a resource requiring and cost full process to get a patent which a paten also is signalling. So initial coin offerings with high capabilities will have less investment to get a patent in comparison to a low technology initial coin offerings, which could be a reason why a low technology initial coin offering cannot acquire a8 patent (Fisch, 2019).

Another set of positive signals that can be sent are the source code, development of a blockchain, and an initial coin offering require high technological capabilities, so the ability to observe the code in progress can have an important role in the consumer perception of the initial coin offering. An example for such a touchpoint is the site GitHub.com. This is a site where it is possible to share the source code of the technology developed behind the initial coin offering public.

4.3 Research gaps

In the two previous sections there was a characterization of the two phenomenon's initial coin offering and crowdfunding on the base of the relevant available academic knowledge. As it appears there are gaps in the knowledge about initial coin offering compared to crowdfunding.

In regard to the research questions it is found that there are some overlapping areas of knowledge but also that there is a lack in the knowledge of initial coin offerings when comparing with crowdfunding.

In order to answer the research question there will in the following be a review of where there are gaps in relation to the theories presented. The gaps will be presented in a chronological order following the research questions.

When looking into the motives behind participating in crowdfunding, it is found that there are multiply motives represented when deciding to participate in a crowdfunding campaign. In the characterisation of crowdfunding it seems as crowdfunding acts as an umbrella concept for various types of crowdfunding. There are four main categories of crowdfunding, Reward-, Donation-, Lending-, and Equity Crowdfunding.

These four types of crowdfunding types can be used to sell different types of technology, products or services but that does not necessary relate to the type of crowdfunding. These four different types of crowdfunding are in reality all relating to specific types of motives. The different names of the crowdfunding types are more an indication of the purpose of the crowdfunding and whether it is helped by donation or seeking profit in equity, than is referring to a specific product or service.

Donation and equity crowdfunding are the poles in the crowdfunding spectrum.

In initial coin offering literature there is no support for clarifying the consumers' motives when considering participating in an initial coin offering. But when participating in an initial coin offering the consumer always gets a digital token connected to a blockchain. This token is a representation of the participation of the initial coin offering but does not say anything about the product or service related to the token. But there is a categorisation of tokens and what they do, viewed in a more functionalised way than with the types of crowdfunding. The token that are issued in the initial coin offering are categorised as usage token, work token, funding token and staking token. But the motives directly related to considering participation in an initial coin offering need further investigation.

When taking a look at the process of a crowdfunding campaign in relation to initial coin offering's there are some gaps. In the literature of crowdfunding there is knowledge of the characterisation of the decision processes and the journey a consumer goes through when making a decision in regard to participation in a crowdfunding campaign, there are explicit explanations of the process and the elements it consists of.

There is literature in the area of the initial coin offering processes, but that is from the creator's perspective. This can give an idea of some of the processes in an initial coin offering that may affect the consumer in their decision process. However, academic knowledge regarding the decision process of a consumer when participating in an initial coin offering is not yet found in academia.

In relation to what consumers get influenced by and how, in the process of considering and participating in a crowdfunding campaign and an initial coin offering, there is most knowledge in regard to equity crowdfunding. In the theories of the influencing and signalling factors of crowdfunding there are presented two directions of influencing interactions 1) opinion-based or preference-based and 2) action-based or behaviour-based.

In terms of knowledge regarding the influences and signal that are sent and affecting the participant in an initial coin offering is however more limited. The main area covered by literature regarding signalling and initial coin offering is the technology, risk, and regulation. This also leaves a gap of knowledge presented in academia.

Regarding the drivers and barriers there was not found enough support in the literature to know what drivers and barriers the consumer experiences when they are considering participating in an initial coin offering. This is also relevant to investigate when answering the research questions.

So, as the above shows there are gaps in the literature. The approach to get data, information, and knowledge to cover these gaps will be disclosed the next chapter.

5 Data collection to uncover the characteristics of initial coin offering

As the previous chapter conclude that there are gaps in the knowledge of initial coin offering's compared to crowdfunding making it difficult to present a well-founded comparison. So, in an effort to give a more accurate characterisation of initial coin offering some interviews will be conducted.

The interviews as a method have been chosen as an explorative approach to capture the experience the informants have with initial coin offering's, in order to clarify the gaps between the two phenomena. This is to get a better understand the underlying characteristics of initial coin offering, as the interviews can help understand the phenomenon, which may be made more clear by the answers from the informants.

Of other approaches is focus group interviews which also could have been conducted instead of semi-structured interviews, but it has not been chosen to use this approach for various reasons. One of the reasons is that when conducting focus group interviews, there is a need for homogeneity in the group and therefore there can be a need for conducting several individual interviews. This had required a lot of resources, which are considered less efficient disposal of the available resources. In this case, it is not an economic restriction in relation to cost per interview person, but it would, among other things, require a larger coordination task than the chosen interview form, and in this specific case a higher willingness in the target group to participate in this kind of research at all. And there are signs showing that this is a community that likes to be anonymous as it will show later.

5.1 Qualitative interviews

It is interesting to get a better understanding of how the informants' perception of uncertainties and risk is and how their experience with uncertainties and risk in other contexts as gambling and traditional investments is perceived and the motivation behind participating. Also, the journey that the consumer experiences, from first encounter with an initial coin offering and until after the initial coin offering, is an aspect that can help clarify the characteristics of an initial coin offering. But the interviews have also been conducted to gain insight into how and what influenced the consumer, as have the drivers and barriers, if they are present and how it affects the consumer experience and engagement though out the whole process from finding the initial coin offering to after the initial coin offering.

It has been chosen to conduct qualitative interviews. The interview method has both advantages and disadvantages.

In terms of advantages, we can mention the experience of security for the informant, the reduction of group bias and the possibility of being nuanced in the discovery of the specific individuals, their history and processes. But it also provides the opportunity to obtain an insight into the distinctive usage patterns and personal decision-making throughout processes (Malhotra et al., 2012).

To mention some of the disadvantages with this type of interviews are that the informant is not inspired or challenged by the dynamics experienced in, for example focus group and group interviews. In should be noted that generally in-depth interviews are also costly, as a result of how much time must be used with each informant. The interview form makes it possible to clarify some of the aspects that are affecting the informants (Malhotra et al., 2012).

In order to be able to retrieve information and knowledge from the qualitative interviews the thematic theme approach is applied as method for analysing the answers. This approach is an inductive approach that is useful when conducting qualitative and explorative studies. However, it should be noted that this master thesis has an adaptive approach, this implies that there also is an element of deductive approach present. This deductive approach is taking focus on certain theories, which are chosen to be applied and used for analysing the foundation for the findings in order to answer the research questions. This is in some way narrowing in the scope of explorative and deductive approach to the interview as a qualitative method, yet It is still exploratory within the scope of the theories in focus.

5.2 Interview design

To conduct the interviews a question guide has been developed. This guide is used as a manual to structure when and what to ask the informants about (See appendix 11.2). The question guide is divided into three main sections first a briefing where the informants is introduced to the

interviewer and main purpose, how long the interview is going to last and how their data will be used and handled, for example in order to keep their anonymity. Second, an introduction of the topic and the informants background and their general experience with participating a crowdfunding and traditional investment. Third, the investigating interview questions. These questions related to the experience of an initial coin offering in the pre-, actual- and post-purchase, and the end of the relation with the initial coin offering.

All the interviews were conducted by the author. It can be argued that it can be beneficial that it is the same person that conducts the interviews in order to achieve uniformity in performance. It should be noted that the author is not an expert in conducting in-depth interviews, even though it was not first time. But it also may be a negative factor for an optimisation of the interview, that there were no partners to discuss the process with and what elements had a positive or negative impact on the answers from informants. All the interviews were sent digitally and transcribed by a third party, but all the audio files were edited before sending it, in order to ensure the anonymity of the informants.

The first qualitative interviews were also viewed as a pilot interview. The purpose of this view was to test the interview guide as well as assure the quality, performance and the yield of the interviews (Justesen & Mik-Meyer, 2010; Kvale & Brinkmann, 2015). After the first interview there was a need to remove some questions, for example question 9 in the “Introduction of the topic and the informant’s background” where the question is about the informant’s knowledge level. When asking this question, it led to an awkward situation that was not perceived as positive for the interview by the author. But also, the question number two about gambling seemed to surprise the informant, however it is perceived as a relevant question as some might argue that there are big resampling’s between gambling and initial coin offering.

The informants were selected from internet-based networks, and family, friends, colleagues and fellow students. The optimal way to identify and select informants would be to select them randomly and also that informants have no personal relationship with the author.

5.3 The informant’s selection process

The process of finding and selecting individuals, that are relevant for this research and who want to participate in an interview in regard to initial coin offerings was very challenging.

There are many webpages with forums and other communication service channels, that in some regard is connected to the initial coin offering and cryptocurrencies universe. There were thoughts in regards not to spam the communities with posts asking them to participate in this study, so I only made two reposts if there was no reply or interaction from the community. Also, in regard to posts in multiple communities there was a consideration there might be community members who were members of other communities, and this is the reason for not posting it in every forum

that are related to the initial coin offering and cryptocurrencies environment. The communities and fora used are displayed with accessible links in appendix 11.2.

It was challenging to identify individuals for the interviews. After having made a broadcast in the chosen forums and asking in the various channels that had been chosen, a few individuals answered with an indication of being willing to be interviewed, just after the posts was made. And after that there was silence. After having made appointments with the volunteers to the interviews, after first broadcast, it was recognised that there were fewer individuals to interview as one could wish for, therefore there was made reposts in more channels, in order to get a bigger base of individual to interview.

In all nine appointments were made, where five of the appointments never materialized, which could be on the base of various unknown reasons and besides that one of the interviews' audio files were damaged and did not work. This resulted in only three individuals where interviewed in a way so it could be used. The common reaction from the individuals, who first stated that they wanted to be interviewed but somewhere in the process got cold feet, was to ignore all communication in this regard.

In order to get more individuals to interview, there was a need to do something else. On that basis there was made an effort to find individuals in the sphere of acquaintances. It was managed to find several persons who was interested but, unfortunate they did not have any real experience with initial coin offerings. But three individuals were identified where one was not able to participate due to personal reasons and the other did not have the time to do it. This leaves an additional person to interview, which put the total of individuals interviewed at four people.

Informants	Gender	Country born/living	Age	Occupation /education
Interview #1	Male	Denmark / Denmark	40	Teacher / Teacher
Interview #2	Male	Denmark / Denmark	26	Studying: Cand.merc. IT
Interview #3	Male	Denmark / Denmark	39	Bank / Cand.merc
Interview #4	Male	Venezuela / France	25	Studying: Master's in business Strategy

Figure 12 Informants form interviews

It was an interesting process of finding individuals to interview, a process that perhaps can help to a better understanding of some of the dynamics in an initial coin offering. In the following some of the challenges met in the communities are presented.

Web forums

When deciding on web forums as a foundation for finding individuals to interview, Bitcointalk.com and facebook.com were chosen. Bitcointalk.com is one of the oldest and most famous forums, where practical all initial coin offering's are presented and discussed (Swammy, Thompson, & Loh,

2018). Bitcointalk.com has approximately 2,6 million members, but is open for everyone (Bitcointalk.com, 2019a).

There was response for the community where fifteen members posted statements, but no one wanted to participate in an interview for various reasons. It did not seem as though the members thought that it could be very interesting to get academic knowledge in the cryptocurrencies and initial coin offering universe. It was explicit there was an interest in getting accepted knowledge in the area, but there was especially interest in getting access to the final product of this master thesis (Bitcointalk.com, 2019b).

The most common expressed reason for why no one wanted to participate, was that a 30 minutes interview was too long. This resulted in, that many of the members encouraged to, that instead of making an interview, make a google survey with written answers. However, after altering the question guides questions into single questionnaire that fitted into a google survey, there was still nobody who made any answers. It should be noted the questions were not designed to suit such a survey, this may not be a helping factor to get answers.

Another reason to the members expressed was that there needed to be an incentive, they wanted to get paid to participate in an interview.

“So you do not offer something as incentive for those who are willing to do what you want? Sorry to say but I dont think you will find people who want to do such 30 minutes of interview for free.”
(Bitcointalk.com, 2019b, #11)

It is interesting the need for getting paid since it was also expressed that because some members make so much money that 30 minutes in an interview would be a waste of their time.

“...investor that invested in many projects with big amounts wouldn't want to get into a 30 minute conversation about it since his time is already very valuable considering how much money...”
(Bitcointalk.com, 2019b, #6)

These types of statement were well presented and in addition it was mentioned that only members with a low or small value, would agree to be interviewed for 30 minutes. But that was not the case, no one from Bitcointalk.com was interviewed.

On Facebook.com there are also discussion forums where people discuss new initial coin offering's and cryptocurrencies. As in the Bitcointalk.com forum a post was made to get individuals to participate in the interview. A post was made in “Bitcoin talk – Denmark” a Danish forum and in “Crypto worriers” a global community, they respectively have approximately 13 and 40 thousand members. The post attracted no activity at all in terms of likes or comments, which also was the effect of a following repost. However, there were two who responded by private message to the

post in the Danish Facebook forum, who wanted to participate, which became the first and second interviews.

Communication service channels

The communication service channels, that have been used is Telegram, which is an instant messages service provider, where for example discussion groups can be formed in a quicker responsive environment, than for example Bitcointalk.com. Then messages were sent out in five fora (see appendix 11.2), with approximate 27 thousand members in total, with a possibility that some of the members are in more than one of the groups.

The posts generated very little attention and the attention they gathered was negative and full of disbelief. One of the main concerns, some of the members expressed was the fear of scammers. As the quote below indicates, there is a paranoia in the communities for fraud, cheaters and scammers. Whether the paranoia might be rightful, because of the nature of the unregulated initial coin offering market, is unknown, but is evident that the concern is present, and it is affecting how individual react and behave in the communities.

“Why would you need to interview anyone about an ICO? Steal their personal info. Threaten them. Screenshot their face and tell them you will create a fake facebook using their real name if they do not send you eth? Sorry but this smells really bad” (Singapore Love, <https://t.me/holotroopers/337089>)

This was a concern shared with other members of the communities and even with an explanation of the reason for the posts, and that this was research for a master thesis, it did not influence anyone from those communities to participate in an interview.

So, in light of the challenge to find individuals who in fact want to participate, it was found reasonable not to choose other selection criteria of the individuals and limit the informants just to those who had participated in an initial coin offering. Regardless of for example their age, background, experience with crowdfunding etc.

5.4 Discoveries of the gathered data

In order to have a structured understanding of the conducted interviews the method to gather and capture the essential of the interviews is based on thematic networks. Qualitative research is meant to produce relevant, meaningful, and useful results. To fulfil that, it is vital that the material that is analysed, is analysed in a methodical correct manner, to find the most accurate meaning in what the informants are telling (Attride-Stirling, 2001).

To be able to have an acceptable and a valid way to turn the data from the interviews into information and base for knowledge, there have to be a methodology. To address this there have

been found inspiration in literature by Attride-Stirling (2001) and Kvale & Brinkmann (2015) where tools to handle and analyse qualitative interviews.

Thematic analysing approach is a method developed as a tool to analyse qualitative research. Thematic network analysis seeks to uncover the themes salient in the transcribed interviews at different levels, and thematic networks facilitate the structuring and representation of these themes (Attride-Stirling, 2001).

All the conducted interviews were recorded and then they were transcribed and read through. After that the process of making the qualitative analysis of the collected data from the interview. The analysed interviews with codes and themes are in appendix 11.8.

Step 1, after the initial process of reading the transcripts thoroughly through, it was time to start coding the text from the transcripts. This was done by labelling words, phrases or sentences with codes that was found relevant in the quest of answering the research questions. The labels were identified based on what was relevant in relation to the theories which are used in this master thesis.

Step 2, After having coded the relevant text into labels, then all the labels were assessed. The labels that were assessed as important in order to clarify the research questions and enlightened the gaps that were identified in the previous chapter were chosen. The relevant labels that were made were grouped together so labels that were relevant to one another were connected. The grouped labels can be categorised in relation to processes, objectives, differences etc. In the process of putting the labels into groups, the choices made are affected by the author and can therefore not be considered completely unbiased. This will help going from a general abstract level of understanding to a more conceptualised understanding of the collected interview data.

Step 3, The themes that are created are closely related to the objective of this master thesis and the theories used throughout the study. Eight themes were made: general experience, risk uncertainties', motive, process, signals, influence, technology & product/service. In order to focus on the relevant themes for this master thesis, not all of the themes constructed is used in the study. In example will technology, which refers to the experiences with the technology how it is made and what it can do, not be used as the topics is within the delimitation boundaries. The same is the case with the and product/service themes, they will not be subject of the comparing analysis, after organising the themes, four of them was selected as main themes motive, risk and uncertainties, process, signal and influence (see appendix 11.8).

Step 4,

The four main themes extracted from the collected data of the interviews is represented by basic-themes. The themes represent information in regard to the experiences a consumer can have

when they are considering or are participating in an initial coin offering. All the themes selected is assessed to have an importance in the clarification of the research questions.

Background for participation			Participation	
Motive	Risk and uncertainties	General experience	Process	Signal and influence
<ul style="list-style-type: none"> • Earn a lot • Quick profit • Help the society • Support great ideas 	<ul style="list-style-type: none"> • Risk reward – high • Lose everything • Existence of initial coin offering and cryptocurrencies • Initial coin offering is before the product is developed. • Fraud 	<ul style="list-style-type: none"> • Not like crowdfunding • Investment techniques • Too professional stock market • Gambling 	<ul style="list-style-type: none"> • Information seeking • Difficult to pay • Where is the money • Sell or keep 	<ul style="list-style-type: none"> • White paper • Teams • Community • Rankings

Figure 13 Themes from interviews

The themes of the interviews identified above are going to form basis, together with the theories and characterisation, for the next chapter where an analytic comparison of the two phenomenon's crowdfunding and initial coin offering is being presented.

6 Analysis of initial coin offerings and crowdfunding.

In order to get a better understanding of how consumers experience initial coin offering's there have been conducted qualitative in-depth interviews with individuals who have had experience with initial coin offerings. The interviews have been conducted to give insight to various areas of the individuals who decides to participate in an initial coin offering. The findings of the interviews combined with the existing theories and characteristic from previous chapters regarding the research questions

6.1 Crowdfunding and initial coin offering definitions

We know from crowdfunding theory that it is a way for creators to find consumers who might be willing to participate in a crowdfunding campaign and that may help fund a given product or service. But it is also a way for a consumer to fill a need founded in a variety of possibly motives, whether it is a reward or a profit. When looking at the two definitions of crowdfunding and initial coin offering, there are similarities.

Crowdfunding:

“Crowdfunding is an open call, mostly through the Internet, for the provision of financial resources either in the form of donation or in exchange for the future product or some form of reward to support initiatives for specific purposes.” (Belleflamme, Lambert, & Schwienbacher, 2014, p588)

Initial coin offering:

“ ... an open call, through the Internet, for the provision of cryptocurrencies in exchange for tokens generated through smart contracts and relying on the blockchain technology, allowing the pledger to enjoy an exclusive right or reward or financial claim.”(Adhami et al., 2018, p. 68)

Crowdfunding act as an umbrella for all crowdfunding types and therefore are the definition broad. When taking a condensed overview of the main characteristic of crowdfunding, initial coin offerings can in broad terms fit into the definition of crowdfunding. Initial coin offering's use open calls through the internet, even if it is only through the internet, and seek financial resources and that will give access to a positive outcome.

However, there are some significant differences in the way the transaction is conducted when looking at the four crowdfunding types and initial coin offering.

One big difference is because of the blockchain technology and how the transaction that are made. This is different between the crowdfunding types and initial coin offerings. Where crowdfunding is relying on third-party to facilitate the financial transactions, initial coin offering is relying on blockchain technology and smart contract to execute the orders, this mechanism makes it possible to do the transaction of tokens without the need of a third-party such as a bank. Where the four crowdfunding types is seeking traditional financial resource through national currencies as American Dollars, the initial coin offering is seeking cryptocurrencies in exchange for the token generated in the initial coin offering and sold on their homepage for cryptocurrencies.

Another big difference is found in the benefit consumer gets when participating and they are provision of financial resources. In an initial coin offering the consumers get a token for the provision of cryptocurrencies, this token can however represent different types of reward or financial claim. Where in the four crowdfunding types campaigns will often have a more tangible also as a physical benefit as a specific product or reward.

There was not much experience with crowdfunding between the informants, as it was not chosen to be an area for to go in depth with and it could not be as criteria for being interviewed. However, there was one informant who had participated in a single crowdfunding in order to buy a product. But after the crowdfunding campaign and having received the product, the relation with the crowdfunding campaign was finished.

“I actually participated in a (crowdfunding ed.) half a year ago, but it was to buy a product, it was not an investment in anything” (interview #2 p2)ⁱ

The interviewees did not experience that initial coin offering and crowdfunding were the same or in same category, since it seems like initial coin offering is viewed like investment which is not the general perception of crowdfunding (Interview #2).

In terms of the form of a reward when participating in equity crowdfunding some similarities can be drawn between that and initial coin offering.

Equity crowdfunding

“Equity crowdfunding is a method of financing, whereby an entrepreneur sells a specified amount of equity or bond-like shares in a company to a group of (small) investors through an open call for funding on Internet-based platforms” (Ahlers, Cumming, Günther, & Schweizer, 2015, p. 957).

What is common with initial coin offering's is the element of an open call, using internet-based platforms and this method is very similar to the initial coin offering method. Even though the internet-based platforms in initial coin offering is based on blockchain and do not have a third-party as a supplier, the initial coin offering is a platform for the funding. The mechanism in equity crowdfunding, where a financial provision gives a specific amount of bond-like shares, can remind a lot of the mechanism in initial coin offering where the consumer gets a token that could also resemble a bond-like share like in equity crowdfunding.

But then there is of course the technology that enables the exchange of financial resources in initial coin offering. This is very different from what is known in equity crowdfunding, but the token is, like the bond-like share, a representation of a value. The basis of this transaction is completely different.

This gives an indication that the definition of equity crowdfunding, which is covered by the overall crowdfunding definition, leaves room for a perception of initial coin offering as a sub type of crowdfunding, but equity crowdfunding and initial coin offerings do not share all the same characteristics.

6.2 What are the background and motives for engaging in an initial coin offering?

First to get an understanding of the consumers and the foundation of their experience with making decisions in the initial coin offering processes, is it interesting to know if they have made decisions in situations that are comparable with this phenomenon, stretching from gambling to traditional financing.

One could argue that an initial coin offering is to some extent comparable with phenomena such as crowdfunding which have been compared to traditional investment in literature. Therefore, in this context these areas are interesting and relevant to study. If these are areas the informants have experience with because then it can help to get an understanding of the informants' behaviour when interacting with initial coin offerings on the basis of knowledge of the other. It is

also interesting because it can give an indication of how the informants relation is towards uncertainties and risk, when they are making a purchase-decision related to initial coin offerings and what motivates them to get money out of the pocket.

Most of the interviewed persons have experience with gambling and there is an understanding of the high risk and how to avoid any uncertainties of gambling. One of the informants describe gambling as something you do with money you easily can spare. There is no expectation of generating any profit because of the risk and the uncertainty for the further impact is without importance (Interview #1; Interview #3). This indicates that in the group of individuals who engage and participate in an initial coin offering have experiences with risk and uncertainties and have reflected on this. In relation to traditional investments all the informants have experience with that. There was a common understanding of the traditional investment markets as being heavily regulated for the safety of individual investors (Interview #3; Interview #2; Interview #3). This was precisely the same perception of the informant of interview #3, however, he experienced the regulation as barrier for traditional investment because of all the documentation a consumer must have. It should be noted that this was an experience from Venezuela, which is an indication of the openness to a wide target audience, a characteristic also known from crowdfunding. But the regulated markets also uses other types of ways to signals (Thies et al., 2016). It seems that between the informants there is a tendency to be willing to take relative high risks and that they are aware of the uncertainties present when participating in an initial coin offering.

When a consumer chooses to consider participating in an initial coin offering there can be several motives behind, motives which also are known from crowdfunding. In the interviews there especially seems to be two types of motivation expressed; the nature and quality of the product or service, and the expectation of future positive returns.

It is interesting to know why the informants want to participate in initial coin offerings and what needs they are motivated to satisfy. There must be a difference in the recognised need, as there is a search for balance between the present state and the desired state, regardless of what the base of the motives.

In terms of motivation, there can be a utilitarian and a hedonistic motive behind the drive of motivation. The utilitarian motive refers to the desire of getting a benefit, where the hedonistic motive refers to a more emotional response or even a kind of fantasy that is desired (Solomon, Bamossy, Askegaard, & Hogg, 2016, p. 199). Through the interviews it is revealed that both categories are present among all the informants and in some cases, it could also be overlapping. This is observed when a bit of profit is reached as was the goal but the emotional benefit of making a good bargain is also present as a hedonistic negotiation or a choice optimisation motive. These motives are also known from the four crowdfunding types.

In terms of the hedonistic motives there is the idea or concept in the universe of initial coin offering and cryptocurrencies of decentralised systems without the need of trust or interference from a third party, transparency, or privacy (Arnold et al., 2018; Fisch, 2019).

There is an indication between the individuals who were interviewed that the intention and the quality of the initial coin offering have an influence on the drive of motivation. There is common ground between all the informants that the technology and ideas and concepts of cryptocurrencies have no need for a third party, transparency, or privacy and that this is what makes initial coin offering interesting to them.

In some cases it was the technology that was a big part of the initial motives for going into initial coin offerings and motive for starting to buy into initial coin offerings and the cryptocurrencies universe.

" In the beginning when I moved into this whole crypto universe, I was totally keen on the technology, that was what got me into the first place" (interview 2, p3)ⁱⁱ

There is also the excitement that the informants experience when they find a new interesting initial coin offering with a huge potential not only for the world but also in terms of profit. This is an indication of both the anticipated utility motive but also with a sting of hedonistic stimulation motive. Not only is this a known motive from crowdfunding campaigns where a hedonistic motive can have a big impact as they often relate to an emotional participation, it is also relevant in initial coin offerings where the attractiveness of the idea behind the initial coin offering has an impact.

"So I like to stick to ICOs that also do it for the sake of technology and the problem they can now solve with that technology" (Interview #2, p.4)ⁱⁱⁱ

And in general, there is a belief that someday there will be initial coin offerings that can bring a solution to the world that is really needed. But there is also an expressed desire to a product that has a positive use case and is relevant not only as a way to generate profit, but also relevant in terms of bringing a solution that is needed into the world.

"Well, I think it is if I can see the potential of the idea itself. That it will be something that we could make life easier for all of us, somehow" (interview 1a, p2)^{iv}

"... When you are going to investigate an ICO, it will be basic to look at which technologies are there. What is the use case" (interview 2, p3)^v

" Well, would not support an ICO that was about developing weapons" (interview 1a, p3)^{vi}

But a desire to bring positive solution to the world for example not making weapons is also expressed, so there is an underlying motive of at least not to support development of destructive

technologies. This is an indication of a presence motive that relate to hedonistic emotion and motives, so it not only totally cynical consumers who are participating in an initial coin offering.

When taking the utilitarian motive in to focus, it is expressed by all the informants that they have an expectation of a future profit. It might be because of the technology and the great things such technology can bring to the world, that captured the initial interest for the phenomenon. However, as informant #2 also says in connection with the statement that it was the technology that got him into initial coin offering's, it was not the motive that kept him in the initial coin offering universe, it was the chase of profit that kept him. Over time he has learned that there was not necessarily a connection between the technology behind the product of the initial coin offering and the development of the value and chances for profit. So what he perceived as a great idea did not match or reflect the values of the initial coin offering. With that in mind he has gone towards a more cynical approach. Instead of having emotions about the technology at the product or service provided by the initial coin offering, the sole purpose for him now when making a purchase into initial coin offerings is not waiting for the product to be developed and marketed, but to see it as an investment where the rise of the price of the token is the goal, basically to get a profit and get out (Interview #2).

"So really I have moved towards becoming a little more callous and just thinking about the money that could be in it" (interview #2, p3)^{vii}

That does not mean that the technology and its product or service are not important, there has to be a general good and relevant use case of the pain the technology is helping to solve, otherwise it is hard to believe in a positive development of the value (Interview #2).

Also, when interviewing the informant #4 there is a lot of focus on the expected profit and the desire to gain a big profit in an initial coin offering. And there is also a focus on how the value of the initial coin offering develops. It is even expressed as a desire to make much more profit.

"So, yeah, I still profit for that. I would love to make much more money." (interview 4, p7)

But there was also expressed a need that was not fulfilled in the traditional way. As the informant from interview #3 is from Venezuela he had experienced difficulties and found it very expensive to invest his money in traditional markets.

"I have some experience with the stocks. But, basically, because it's really difficult to open an account and get a broker and all that process. It's like very greedy and difficult for the user. So I got more interested in crypto currency" (interview #4, p.2)

There is a distinct focus on the utilitarian motive, in terms of the among of interviewed individuals. It is not like the hedonistic motive is not present, it is, but it seems like the hedonistic motive lies in the perception of new technology, their products and services, and what great things it can bring to the world. This is an initial motivation trigger and then it turns, and the focus is narrowed down to be profit driven.

There is one motivation element from three of the four crowdfunding types, that the informants did not talk about. The element which was not represented in the interviews was the donation aspect. This does not rule out the donation motivation as being present with consumers participation in initial coin offerings. As there were only four interviews, it is very likely that not all feelings and experiences that exist in the initial coin offering universe was found in the conducted interviews. But in the theory of tokens there is the Funding token (see section 4.2.3), which is a token that are meant to be used as a donation where the token's value is the pride of ownership.

6.3 The journey and signals experienced when participating in an initial coin offering?

As we know from literature it is a common approach to divide the consumer experience into three main phases in the process of purchasing, after an initial trigger are released. The three phases consist of a pre phase, an actual purchasing phase and a post phase (Edelman & Singer, 2015; Følstad & Kvale, 2018). In each of the phases there is a discussion of the signals that are present when a consumer goes through the initial coin offering experience.

As described before there are different motives that triggers a consumer to consider participating in an initial coin offering. This triggered motive can create an interest in the topic of leading a search effort in multiply ways. It could be through the news, internet, communities, key opinion leaders, and friends and family. It was mentioned that a personal relation was the reason for getting interest initial coin offerings (Interview #3) but others did not reveal precisely where they first really got interested. But when the consumer has been triggered and is catching interest, they start to evaluate the market of various initial coin offerings, to asses which initial coin offerings may have an interest for them. This leads to the pre phase where the consumer narrows down the different initial coin offerings that they specifically find interesting, based on different channels of information. This is very similar to the seeking and browsing of prospects in crowdfunding campaigns.

As the signal is an important part of the experience of the initial coin offering in all the phases a consumer goes through, I have chosen to combine the journey and the signals known from equity crowdfunding. So as presented before the consumer moves through different phases when making a decision. When participating in an initial coin offering these phases are also present and the consumer needs different kinds of support to make the right decision for them. When a

consumer is getting influenced by signals it is to minimize the information symmetry. As there are some similarities between initial coin offering and equity crowdfunding it is interesting to get a characterisation of what signals is common for the both. As there is a need for the consumer to minimize these uncertainties and risks in initial coin offerings, and as with equity crowdfunding there can be some positive and negative signals.

6.3.1 Pre- initial coin offering

In the pre phase the consumers evaluate the different initial coin offerings that they find interesting. This is a phase also present in crowdfunding campaigns when a consumer is screening and selecting prospects. This step is confirmed by the informants of the interviews who explain that there are many different initial coin offerings to choose from on the market.

There are huge amounts of communities that use electronic word-of-mouth as a communication form where all kinds of initial coin offerings are being discussed. However, it is very time consuming for the consumer to go through the internet and communities in the search for social capital to obtain relevant and correct information – a process known from crowdfunding.

"... there are many, many hours where you sits and reads and seeks to find knowledge on one or the other (initial coin offering's ed.), and searches in communities." (Interview #1a, p.4)^{viii}

When the informant has chosen a specific initial coin offering there is a series of different ways to get information to assess the initial coin offerings, in order to narrow the selection possibilities to a specific initial coin offering.

One of the first thing a consumer does is to start screening information, as described by an informant. When he begins to asses an initial coin offering, he heads onto their homepage to obtain knowledge about the background of the initial coin offering and what it is, this is one of the main touchpoints owned by the initial coin offering.

"... First and foremost I went to their own website..." (Interview #1a. P.4)^{ix}

It is of course not the only interesting place to get information about the initial coin offering, but it is one of the most important signals. There is also an agreement between some of the informants that the initial coin offerings homepage has an effect on the perception of the quality of the initial coin offering and how there is a ubiquitous contextual impact in crowdfunding, referring to the technology and design.

"... When you first come in and just look at the design of a website, you already have a feeling like when you meet someone. The first hand impression already does a lot at least. Is it clear, it is set up properly..." (Interview #1a. P3)^x

When interviewing the informants there was a very specific piece of information that seemed to have a high importance in the decision process of all the informants, which is the white paper.

"I try to get acquainted with the different things, read the white papers available before you start throwing money into something. Everything else would also be too risky, perhaps, one might say."

(Interview #1a, p. 2)^{xi}

The white paper describes the initial coin offering project as mentioned before in the second step of creating an initial coin offering. When the informants were talking about the white paper, it almost seems as the most important single source of information and a very important touchpoint as this document is containing many signals for the consumer to interpret.

"The first thing I would do, I'd go to the landing page of the project and look for the white paper"

(Interview #4, p.4).

One part of the white paper that was of special interest for the informants was the disclosure of the team behind the initial coin offering. There must be clear details about the team, so it is possibly to find out more about the people behind.

If addressing the uncertainty and risk aspect of initial coin offering there is, like in equity crowdfunding where the consumers do not fully understand the campaigns risk, an understanding that it involves high risk as is known from American Security and Exchange Committee (SEC, 2017) and confirmed as a risk that is also perceived and experienced by the informants (Interview #2; Interview #4). It is a reminder of the element of not fully understanding the campaign risk from equity crowdfunding. This uncertainty can lie in the knowledge of the team or the lack of it, as with equity crowdfunding. This is also the reason why a transparent and qualified team is an important signal to send in an initial coin offering.

As the competences of the creators is unknown, it leaves a need for some information as a substitute for the lack of that information in order to rule out bad intentions (Interview #2). This is also seen in crowdfunding campaigns where the limited access to the founders, is a characteristic that is defining crowdfunding in comparison with traditional finance. This was also the case with reliable data about their venture and underlying digital technology.

In relation to initial coin offerings and the reliable data about their initial coin offering and the underlying digital technology, it seems that there is a common understanding between the all informants that in the assessment and evaluation of initial coin offerings, the importance of the white paper and the team behind initial coin offering was very high. This kind of consumer approach of assessment and evaluation is also seen with crowdfunding.

The details about the team has to be convincing before the consumer is willing to participate in a specific initial coin offering (Interview #4). The team has an especially important part in the

assessment of the initial coin offering, as they are sending some of the reputation signals. But it is also important how the team's behaviour and the opinions they share is in the community present some professionalism and intelligence and, for example, does not behave in an arrogant manner towards community members (Interview #2).

" So I'll always be most interested in actually seeing the behavior of the team behind the ICO. What kinds of messages they throw out? Are they professionals? It is extremely important to be professional." (Interview #2, p.7)^{xii}

Also in the communities is it possible to assess the teams professionalism and intelligence by looking at the team's behaviour and how they communicate with the community and how they are replying to the members; the team has to appear relevant and honest in the community. The signal they are sending is observable but also reflects a cost to manage the community and it can help signalling that is not a scam intention (Interview #2). And there seem to be an awareness of the fear of getting scammed, not just by the team but also by the community, as it was motioned in relation to finding individuals to interview, where a community member expressed his fear for getting scammed by the author.

The team of the initial coin offering is also sending signal through the white paper, where the professionalism can be signalled. This document is also disclosed as an important document in the signalling in initial coin offering's, as it is the document that explains the whole project. So, it is important that the team makes the right impact on the consumers. They cannot make it too complex nor can they make it too simple.

" I also have the feeling that the more technical they do in a white paper, the more it confuses and becomes complex, and there is someone who falls for it. But if I can't figure them out, it's also a little difficult." (Interview #2, p.3)^{xiii}

There are communities where the members are more interested in affecting the price of the specific token instead of showing interest in the product or service. This is an experience among the informants of the quality of the various communities connected to the initial coin offering. And it was seen as useless to build decisions on the community, as there were shady motives behind hyped initial coin offering's (Interview #2).

" When I look into an ICO and look into the community, I will never listen to what other communities are saying, because there is only one thing they want, and that is to be hyped, it has to be big and it has to make lots of money" (Interview #2, p. 7)^{xiv}

But that does not mean that communities are useless or without importance. One of the qualities of the communities is how and what is written. A constant focus on the price and which exchanges

the token will be listed on, can be perceived as a negative approach, which indicates that the focus is not the technology behind the initial coin offering but the value.

This does not mean that the community is without significance. But there can be differences in the quality of the specific community. There may be a tendency in some communities that it is a lot of spam which also can make it difficult to navigate the information and the quality of it (Interview #1a). However, as it has been shown in crowdfunding there is a need for “wisdom from the crowd” as a substitute for the lack of information also in the environment surrounding initial coin offerings. But in terms of crowd due diligence, as seen in equity crowdfunding, there are paid communities where there is electronic word-of-mouth between the members who represent a more professional crowd, but also where there are some administrators who help with a professional approach to the assessment of the initial coin offering, as we know from financial analysis. These communities are often more general communities where it is not necessarily is a specific initial coin offering but all sorts of initial coin offering’s that are on the market, which are being discussed (Interview #2).

The community also have another interesting aspect than the opinion and attitude exchange and that is the behaviour and action by other members of the communities. It can have an interest for the assessment of the initial coin offering, to know how many members of the different communities there are connected to the specific initial coin offering, this means that the number of members who have signed-up for membership of the community have an effect on the assessment of the initial coin offering.

“... how big is the ICO community, I go in and look at how many users are members of their telegram channel” (Interview #2, p. 4)^{xv}

This could be perceived as one of the few popularity information’s that was indicated by the informants of the interview.

However even though the characterisation of the aspect influencing a consumer participation an initial coin offering, there are two elements that were mentioned throughout the interviews, the white paper and the team. It was even expressed that these two aspects of the assessment of the initial coin offering is the base of information that is needed when one is to decide whether to participate in an initial coin offering.

“Well, basically, you seeing the white paper and the team behind it, I think it would be more than enough for you to know if you would invest.” (Interview #4, p.5)

So, there is an expressed importance of the team and the white paper, it seems like these are the two main parameters in the assessment of the initial coin offering. These two elements also send

a reputation signal which have a positive on the attractiveness. But also, the community have its eligibility as it can indicate the need of substitution of information found in the community and the members. The communities as social capital helps the consumers who are considering participating in an initial coin offering, by lessening the information asymmetry. Also, the design of the initial coin offering webpage seems to have some effect on the decision of participation.

6.3.2 Actual purchasing phase in an initial coin offering

This phase is different in initial coin offering from how we know this it is in crowdfunding, maybe with the exceptions of the ubiquitous context which is an underlying influence factor of the blockchain technology. After the informants have decided to purchase into an initial coin offering, they need to purchase the token that is sold. The initial coin offering period can differ but there is an understanding that an initial coin offering usually runs for one month where it's possible to purchase the token sold in the initial coin offering (interview #3).

But the process of the actual purchase of the token in the initial coin offering is a difficult process which includes multiple steps before actually being able to pay for the token, this is something all of the informants agree on.

"If you were to get money into the system, where you would then buy Bitcoin on some stock exchange, right, and be sure it was up and all the risks there, and so on." (Interview #3, p.4)^{xvi}

It is explained by all the informants that the new tokens can usually only be bought with cryptocurrencies like Bitcoins and/or Ethereum, which is a blockchain technology like Bitcoin. This means that the informants had to acquire some cryptocurrencies in order to make the purchase which they receive in digital wallet (Interview #3; Interview #2). The way it is explained by the informants is, that the informant would have to buy the cryptocurrencies from a person, where the informant would need a digital wallet for receiving the cryptocurrency. Or it could be acquired from an exchange where it is possible to buy cryptocurrencies with a credit card or such (Interview #3; Interview #2).

Then after having acquired the right cryptocurrencies the informant is able to purchase the token sold in the initial coin offering. It is said that the token is usually sold on the initial coin offering's homepage, an address is displayed where the informants send their cryptocurrencies to. When the initial coin offering receives the order and payment it triggers a smart contract that will initiate a transfer of the new token to the same wallet from where it was purchased, or to a wallet of the purchaser's wish. This is a save way to make the exchanges because of the blockchain technology and its ability to keep track of the ledger. But an uncertainty is mentioned when the transaction has been made; for a period after sending the cryptocurrencies to the initial coin offering, it is difficult to know where the payment is and what is going on, where the tokens are and whether everything went as it should. This step can be unpleasant as there is nobody to help you, you are all alone (Interview #2; Interview #3).

When purchasing and receiving the token you do not have ownership in project behind the initial coin offering. This is different from the stock market, initial public offering and even crowdfunding (Interview #2)

6.3.3 Post initial coin offering

When the informants have purchased the token and they have received them in their wallet they have different options to pursue. They can sell the token just after the initial coin offering or wait and see how the market react and how that affects the value of the token. It is possibly to sell or buy, as the usual scenario for initial coin offering's is that when the initial coin offering is finished, the tokens are listed on an exchange for trading of tokens and cryptocurrencies (Interview #2). It seems to be a common approach between all the informant to follow the trend of the token price on exchanges in the secondary market which is not described as an issue in the general crowdfunding literature. But it is a phase where positive signal can have an influence, not only on the consumers already holding the token but also in term of new potential buyers of the token, as known from herd mentality in equity crowdfunding. This is also the case with the support of ubiquitous contexts as the underlying design and technology.

The informant can keep the token and wait for the product or service to become a reality. This is interesting for the informant if the token enables a service that depends on whether the informants have the token (Interview #1b).

But there is also a possibility for the initial coin offering project is failing. This could be because the team behind the initial coin offering is not able to deliver on the promise of a product of service. Or it could be because of a scam where the purpose of the initial coin offering was to steal from the participants.

6.4 What are the drivers and barriers for the participating in an initial coin offering?

Barriers:

Between the informants there is a fear of losing the ownership of the acquired tokens in various ways. There is the fear of losing the control of the digital wallet's password this is because the consequences of losing a password, is losing control of the digital wallet and the assets located in it. If that happens, there is nothing to do. The control of passwords is crucial as there are no third party that have access to the digital wallet and there are no one who can help. Only if it is through a central exchange one might have a chance if a password is lost (Interview #2).

Then there is the fear of getting scammed. This fear or paranoia is also illustrated earlier in this master thesis regarding the process of finding individuals to interview.

" Here I have just made a offer, into a place where I know that there is no guarantee for my money. If they are gone, they are gone" (Interview #1b, p. 4)^{xvii}

But the informants also have a tendency to express this fear as something that they are aware and think of.

“crypto currency in general is like the wild west without any law, any regulation, so that’s why there are so many scams.” (Interview #4, p. 2-3)

The process of the actual purchase is not user friendly. There is a lot of technical steps from having cash to purchasing of a new token from an initial coin offering. This requires technical knowledge about sending cryptocurrencies from digital wallets both own digital wallets and the wallets on exchanges (Interview #2). But these processes also put the purchaser in a situation where sometimes it is difficult to know what had happened and a fear for having sent the cryptocurrencies to a wrong address can occur. (Interview #1b; Interview #2)

Then there are some barriers for participating in initial coin offering’s in the form of the regulation issue that brings uncertainties as to whether it is even legal to purchase tokens in an initial coin offering in certain countries (Fisch, 2019; Interview #4). Then an effect of regulation is how the taxation will work, which are all aspects that the informants are aware of. But regulation may have a positive effect on the market as whole.

“I think a little bit of regulation will be good” (Interview #4, p. 3)

Drivers

So, hypnotically in continuation of the above, regulation could maybe be a driver for initial coin offering’s in the future. This is an aspect that the informant in interview #4 presented. He was experiencing that the process as it is now when purchasing a token in an initial coin offering, is technical and complex. But in the future, it will be made better as he thinks that there is a chance that tokens will take over the stock market:

“I think, and I believe, in the future instead of stocks we will have tokens because it will make the whole process much easier ... to raise money and to interact with it is much easier to tokens than the stocks. So you’ve cut the middle man, the brokers...” (Interview #4, p 8)

This statement also takes the up an angle where a middle man is cut out of the supply chain, as it is possible to buy the tokens directly on the homepage of an initial coin offering. There is no need for a broker, bank or other third-party to handle the purchase and make a safe transaction, because the trust is kept by the blockchain at its efficiency with the connected smart contracts to execute the exchange.

But it may also be a driver when looking at the idea and concept behind the technology and the abilities it makes possible. Because of the decentralized construction of the blockchain that enables an infrastructure that can secure privacy and transparency, which also has been seen in the motives expressed by the informants.

6.5 Analytic Summary

So, when taking a look at initial coin offering and crowdfunding it seems like the boundaries of the definition leaves room for a funding method like initial coin offering. Especially equity crowdfunding has similarities with initial coin offering. But there is one thing that are fundamental different in the funding process which is the use of blockchain technology and the issuing of tokens as product representation, this can be secure for the consumer but the absent third-party can be missed in negative situations.

The background of the informants in this study, shows that there is a knowledge of stocks and gambling, but also about the risk and uncertainties that are related, this is experience the informants have and use when assessing initial coin offerings.

There are some triggers realtered with the exchanged opinions of relations and communities, there can activate the motives within the consumers. The motive that are present are in initial coin offering reminds of the motives seen in crowdfunding, where both hedonic and utilitarian motives are present. But the hedonic motives are a characteristic that have tendency to be most dominating in crowdfunding in general. However, in equity crowdfunding there is a more utilitarian dominated motive, this seems like a common characteristic which the informants also have experience in initial coin offerings.

In the journey of an initial coin offering, the consumer experience the need of support like it is seen in crowdfunding. There are the same characteristics of the decision in a crowdfunding campaign as it is found in initial coin offerings, this is seen in the need of supporters as: social capital substitutes and ubiquitous contextual impact, but in different phases of the process, in example the post phase's need for a ubiquitous contextual impact. And as seen in equity crowdfunding there are negative and positive signals. Of positive is reputation signalling, crowd due diligence and rules and regulation, which are important signal though the phases, however, the crowd due diligence should be on the base of more professionals' communities. Of negative impact on the consumer, is the fact that the consumers do not fully understand the campaigns risk, what the teams and creators' competences are, and fraudulence. This is a signal that may lose importance overtime, as an example the intentions of the team. These signals can in some cases be represented as a touchpoint the consumer interact with like a homepage and white paper. But there is a difference in the secondary market as this is very active in initial coin offering. These findings can be illustrated by figure 14.

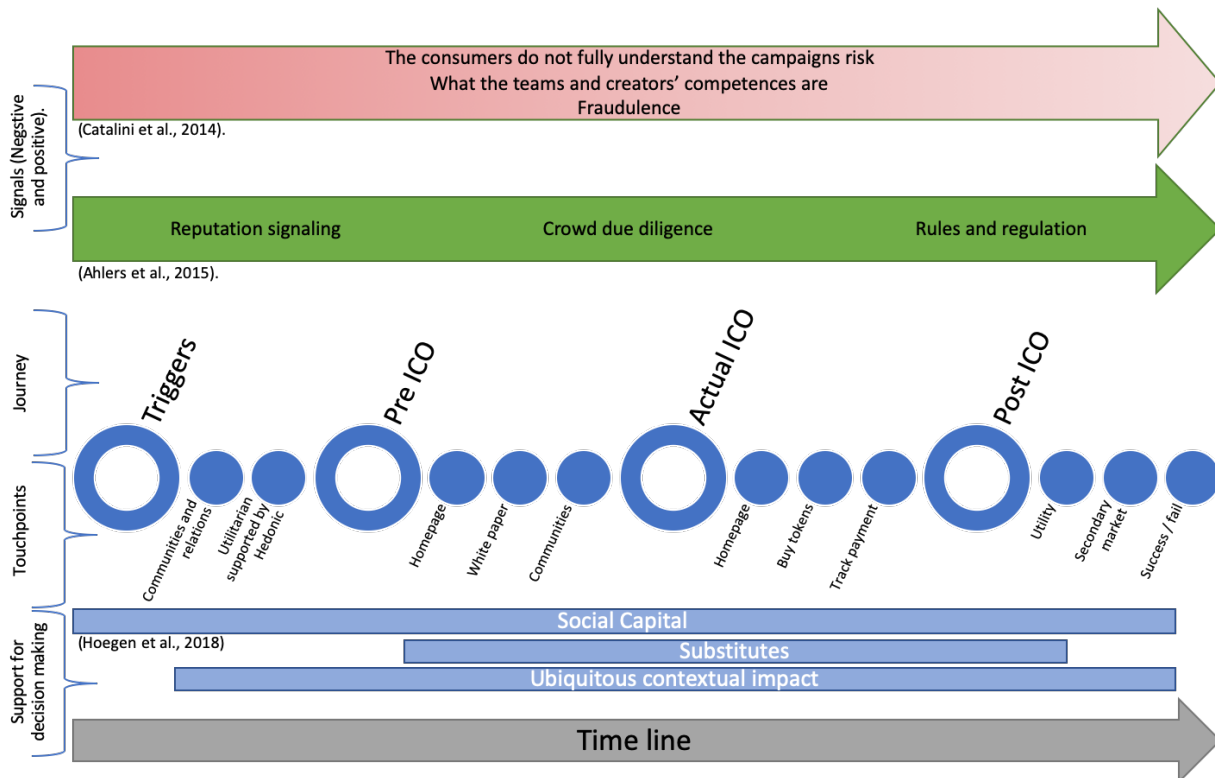


Figure 14 Initial coin offering process

The barrier experienced with initial coin offering is related to the complexity of the participation process in terms of purchase, handling and controlling tokens. And of course, the regulation, which can be seen as a driver for the future consumer participation in initial coin offering. But also the ability to bypass a third party and the associated cost, and secure decentralized blockchain technology, can be a driver.

7 Conclusion

The purpose of this master thesis is to get a better knowledge of phenomenon initial coin offering from a consumer's perspective. To fulfil this purpose a question has been presented with sub questions to enlighten some aspects of initial coin offerings.

To the first sub question regarding motivation, it is found that there are comparable elements of motives within the hedonistic and the utilitarian aspects of crowdfunding and initial coin offering. The hedonistic motive is dominating in crowdfunding in general where initial coin offering seems driven more by utilitarian motives, donation crowdfunding could even be categorised as philanthropic. But in comparison with the equity crowdfunding type, there are fewer differences as they both are dominated by the utilitarian motive.

The process of crowdfunding and initial coin offering has similarities in the decision process, as there is a need for screening and evaluation of the prospects, before the actual purchase phase. The big differences are in the actual- and post purchase phase.

In the actual purchasing phase, there are different needs of support such as social capital and substitution for information, but the big difference is based on what you get and how it is paid for. First of all, in an initial coin offering the consumer purchases a token which represents a value and maybe a utility, where in a crowdfunding campaign it is a product or service the consumer purchases as a one-time relation, a transaction that does not lead to a secondary market. Second, when a consumer purchases tokens in an initial coin offering, they do it on the homepage of the initial coin offering with cryptocurrencies based on blockchain technology without a third party. In a crowdfunding campaign the consumer buys the product or service on a central homepage for the specific crowdfunding type and pay in a traditional way. But in this phase, there was especially one important touchpoint which is the whitepaper, but also the initial coin offerings homepage had an importance.

The post phase in crowdfunding is limited to an evaluation and do not take a secondary market in to account. This is a part of equity crowdfunding, but in initial coin offering it is an important part of the post purchase experience.

In the third sub question regarding the signals that influence consumers, we see some similarities with equity crowdfunding. In initial coin offering there are both positive and negative signals. There is a need for reputation and crowd due diligence, as regulation could be a positive signal. But the lack of knowledge about the risk and team behind the initial coin offering are signals that without being addressed can have a negative influence such as increased awareness of the risk of getting scammed.

In terms of barriers and drivers for the consumers in initial coin offering, the barriers are tied to the fear of getting scammed, and the complexity of the process of acquiring cryptocurrencies and tokens. The drivers are, the possibility that the technology can make it easier to trade with tokens instead of stocks combined with the ability to make an exchange without a third party. But also the security and decentralised aspect the blockchain can act as drivers.

So, when viewing crowdfunding as an umbrella for four different types, there are many general similarities with initial coin offering which overall make it seems as there is not that big a difference, especially when comparing with equity crowdfunding. Where the difference is in what the consumer gets, in equity crowdfunding the consumer receive a bond-like share, in initial coin offering the consumer gets a token. The difference lay in the blockchain technology and what it brings.

8 Discussion

Initial coin offering can be characterized and understood through crowdfunding, but an interesting perspective on this master thesis, is that it has shown that there could be argued for an expansion of the crowdfunding types. Crowdfunding is able to explain a big part of the phenomenon of initial coin offering where the equity crowdfunding type is the one that has the most characteristics in common with initial coin offering. But equity crowdfunding doesn't cover all the aspects of initial coin offering.

The master thesis argues for a need of expanding the types of crowdfunding to include a new type of crowdfunding that could include the characteristics of initial coin offering. This new crowdfunding type could be called Crypto crowdfunding, and be defined as following:

“Crypto crowdfunding is a method of financing, whereby an entrepreneur sells a specified number of tokens, distributed by smart contracts connected to a blockchain, to a group of (small) investors through an open call for funding, on the internet”

There are many unsolved questions regarding funding through initial coin offering and at present time there is a high legal risk of running initial coin offering in USA. It took several years for the JOBS act to be made and give a legal frame for equity crowdfunding. This legal risk is something that is affecting the initial coin offering ecosystem ability to grow. There has been a “hyped” market with a lot of scams, so in that regard there is a need for better regulation. An interesting argument derived from this thesis, regarding this discussion, is that initial coin offering could be seen as a part of crowdfunding and the regulation for equity crowdfunding could be applied to initial coin offering, maybe with modifications.

Time will tell if this argument can be made, but there is no doubt that initial coin offering, as a mechanism for funding, is a strong and efficient tool for raising finance, and we will very likely experience the use of it as it continues to expand to more than we have seen.

But this master thesis also raises the question about the depth of the findings, that could be interesting for academia to research. In example a hypothesis could be that the white paper is more important than the team or the technology. This could help in managerial aspects in the marketing of the initial coin offering to understand where to use resources, if it should be used on making a good the white paper or promote the team. Also, in a managerial context this master thesis can help understand some of the dynamics of in an initial coin offering by looking at equity crowdfunding and maybe access tools from equity crowdfunding and use those that fit, to help the marketing of the initial coin offering.

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11 Appendix

11.1 Initial coin offering – numbers and raised amounts

See file:

- ICO overview CoinSchedule.xlsx

11.2 Interview guide

See file:

- Questionnaire guide.docx

11.3 Interview #1a

See files:

- Interview #1a.docx
- Interview #1a.m4a

11.4 Interview #1b

See files:

- Interview #1b.docx
- Interview #1b.m4a

11.5 Interview #2

See files:

- Interview #2.docx
- Interview #2.m4a

11.6 Interview #3

See files:

- Interview #3.docx
- Interview #3.m4a

11.7 Interview #4

See files:

- Interview #4.docx
- Interview #4.m4a

11.8 Coded interviews

See file:

- Interviews coded.docx

11.9 Translations of quotes

ⁱ *"Jeg deltog faktisk i en (crowdfunding red.) for et halvt års tid siden, men det er jo for at købe et produkt, det var ikke en investering i noget"* (interview #2 p2)

ⁱⁱ *"I starten da jeg bevægede mig ind i hele det her kryptounivers, der var jeg totalt opsat på teknologien, det var det der fik mig ind i første omgang"* (interview 2, p3)

ⁱⁱⁱ *"Så derfor kan jeg godt lide at holde mig til ICOs der også gør det for teknologiens skyld og det problem de nu kan løse med den teknologi"* (Interview #2, p.4)

^{iv} *"Jamen, jeg synes det er hvis jeg kan se potentiale i selve ideen. At det vil være noget som vi kunne gøre livet lettere for os alle, på en eller anden måde."* (interview 1a, p2)

^v *"...når man skal undersøge en ICO, så vil det være grundlæggende at kigge på hvilke teknologier der er. Hvad er use casen"* (interview 2, p3)

^{vi} *"Altså jeg ville ikke støtte en ICO der gik ud på at man skulle udvikle våben"* (interview 1a, p3)

^{vii} *"Så egentlig har jeg bevæget mig hen imod at blive sådan lidt mere følelseskold og kun tænker på de penge der kunne være i det"* (interview #2, p3)

^{viii} *"...det er jo mange, mange timer hvor man sidder og læser og søger for at finde viden til det ene eller det andet (initial coin offering's red.), og søger i communities."* (Interview #1a, p.4)

^{ix} *"...først og fremmest gik jeg ind på deres egen hjemmeside..."* (Interview #1a. P.4)

^x *"...når man først kommer ind og bare ser designet på en hjemmeside, så har man allerede en fornemmelse, som når man møder en person. Førstehåndsindtrykket gør allerede en del i hvert fald. Er det overskueligt, er det sat ordentligt op..."* (Interview #1a. P3)

^{xi} *"jeg prøver på at sætte mig ind i de forskellige ting, læse de white papers der er inden man begynder at kaste penge i noget. Alt andet ville også være for risikofyldt, måske, kan man sige."* (Interview #1a, p. 2)

^{xii} *"Så jeg vil altid være mest interesseret i at se faktisk adfærden af teamet bag ICO'en. Hvad er det for nogle beskeder de smider ud? Er de professionelle? Det er enormt vigtigt at være professionelle."* (Interview #2, p.7)

^{xiii} *"Jeg har også på fornemmelsen at jo mere teknisk de gør det i et whitepaper, jo mere forvirrer det og bliver komplekst, og det er der nogen der falder for. Men hvis jeg ikke kan gennemskue dem, så er det også lidt svært."* (Interview #2, p.3)

^{xiv} *"Når jeg kigger i en ICO og kigger ind i community, så vil jeg aldrig lytte til hvad andre communities siger, for der er kun én ting de har lyst til, og det er at det skal hypes, det skal blive stort og der skal tjene masser af penge"* (Interview #2, p. 7)

^{xv} *"... hvor stor er den ICOs community er, jeg går ind og kigger på hvor mange brugere der er medlem af deres telegram-channel..."* (Interview #2, p. 4)

^{xvi} *"Hvis du skulle have penge ind i det system, hvor du så skulle købe Bitcoin på en eller anden børs, ikke, og var sikker på at den var oppe og alle de risici der ligger der, og så videre..."* (Interview #3, p.4)

^{xvii} Her har jeg ligesom budt ind på et sted hvor jeg godt ved at der ikke er garanti for mine penge. Hvis de er væk, så er de væk." (Interview #1b, p. 4)