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### **From Physical Coins to Digital Coins** A Case of Cryptocurrency

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# From Physical Coins to Digital Coins

## A Case of Cryptocurrency

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### Abstract

Cryptocurrency is a digital currency that is argued to potentially revolutionize the existing financial system based on fiat money. Previous research within the field of cryptocurrency has largely focused on individual consumers, while ignoring organizations. Thus, a qualitative case study was conducted in order to understand how organizational actors were introduced to cryptocurrency and how companies use cryptocurrency in practice. Data from twelve different organizations was gathered in the form of interviews and physical observations. The findings indicate that the idea of cryptocurrency is translated by human and non-human actors which results in heterogeneous companies and practices. Cryptocurrency exchanges convert cryptocurrency to fiat money and vice versa, fintech companies offer innovative payment solutions, and e-merchants provide goods and services to the market. Cryptonative companies therefore act as carriers of ideas and may be understood as norm promoters. Hence, cryptocurrency encompasses a polysemic character as it is interpreted and used differently in various contexts. Our study further showcases that transacting with cryptocurrency is becoming a fashionable trend as the demand for using cryptocurrency is rising among numerous stakeholders. An ongoing process of normalization is therefore unfolding where transacting with cryptocurrency is claimed to have developed into a taken-for-granted norm in distinct cryptocurrency communities. Instead of replacing fiat money altogether, cryptocurrency can therefore act as an alternative currency in contexts where it is more suitable. A parallel financial system is thus present where cryptocurrency and fiat money complement each other and co-exists. The implications of this paper is that managers and research scholars can utilize our findings to better understand why stakeholders chose to adopt cryptocurrencies, and how companies use it in practice.

**Keywords:** Cryptocurrency, Bitcoin, Scandinavian Institutionalism, Travel of Ideas, Translation Process, Norm Entrepreneurs

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## INTRODUCTION

Retrospectively, technologies come and go and up until recently, the public perception regarding cryptocurrency has long been affiliated with a skeptical tone (Alcorn et al., 2013), but is now seeing a potential transformation where individuals start to accept cryptocurrency as a legitimate phenomenon (Gross, 2021). Only recently, Tesla decided to invest \$1.5 billion into Bitcoin and several other large organizations such as PayPal and Square have also decided to operate with cryptocurrencies, arguing that “crypto” is now entering a new era of normalization where the mainstream public is realizing its benefits (Dans, 2021; Gross, 2021). In addition, countries, such as El Salvador and The Central African Republic have recently adopted Bitcoin as their official currency (Browne, 2022). The total market capitalization of cryptocurrency has gone from roughly \$10 billion in 2016 to nearly \$3 trillion in 2021 (CoinMarketCap, 2021), where institutions invest more and more resources into crypto (Gross, 2021). Therefore, this topic is interesting for multiple stakeholders; including research scholars, governments, and banks since cryptocurrency is arguably competing against national currencies. Banks have historically tried to kill cryptocurrency as a legitimate commodity, but are now taking preliminary steps towards crypto adoption themselves (Flitter, 2021). Ergo, examining companies that work with cryptocurrency on a daily basis, i.e. *cryptonative* companies can provide fruitful information to numerous practitioners.

According to Nadeem et al. (2021), there are still gaps in research targeting Bitcoin from a social standpoint which is supported by Redhwan et al. (2019) who also claims that much of the previous research within cryptocurrency has focused on the consumer side of crypto based on a positivism perspective. This implies a study focused on finding out an objective reality, which is contrasted with a constructivist perspective where the researchers interact more dynamically with the research subjects and form their own opinions (Redhwan et al., 2019; Silverman, 2015). In addition, recognized management journals such as the *Cambridge Journal of Management & Organization* and the *Journal of Management* published by SAGE have little to none articles written about cryptocurrency. Much of the existing research has acknowledged important adoption factors and looked at *why* people adopt crypto, but neglected *how* cryptocurrency is adopted and used; especially by organizations (Bruijl, 2017; Greene, 2016; Nadeem et al., 2021; Redhwan et al., 2019). The aim of this paper is therefore to fill this gap by investigating cryptonative companies from a constructivist perspective.

Inspired by Scandinavian institutionalism (Czarniawska & Joerges, 1996; Czarniawska & Sevón, 1996, 2005) and norm research (Finnemore & Sikkink, 1998; Sunstein, 1996; Sjöström, 2010), our paper also contributes to the academic field, particularly within organizational studies by attending to the concept of “travel of ideas” and “norm entrepreneurs”. These theoretical concepts were utilized to be able to explain how ideas come about, change, and become institutionalized as they travel from one place to another. Thus, our research aims to provide insight into the usage of cryptocurrency within organizations and strive towards answering the following research question:

- *How is cryptocurrency introduced and used by organizational actors?*

The remainder of this paper is organized in the following way. First, an overview of the previous research is presented to familiarize the reader with existing findings and common terminologies used in the cryptocurrency-sphere. Subsequently, the theoretical perspectives that have been applied in order to help us explain our data are described. This is followed by a methodology section that presents the setting, our research design, how we have collected and analyzed the data, limitations and ethical reflections. Afterwards, our findings are presented through the lens of Scandinavian institutionalism. The last part of the paper encompasses a discussion regarding cryptocurrency and norms, followed by a conclusion to summarize the implications of our findings, and highlight potential areas for future research.

## **Previous research**

### **Introducing cryptocurrency**

Long ago, in the prehistory of humankind in the upper paleolithic revolution around 30-40,000 years ago, hunters bartered with each other to exchange tools and weapons (Bar-Yosef, 2002). Bartering was then exchanged to physical coins as currency around 5,000 years ago with the introduction of *The Mesopotamian shekel* where the high society in Lydia and Ionia used it as a medium of exchange to pay armies (Kusimba, 2017). Today, almost all the currencies that are circulating in the economy are *fiat money*, meaning that they are issued and backed by a government (Chen, 2021). Consequently, currencies such as the U.S. dollar, the British pound, or the Japanese yen all run the risk of inflation as governments have the mandate to, hypothetically, print infinite amounts of money. Despite the fact that currencies can be issued without any state agencies involved, Alcorn et al. (2013) claim that government support is essential for a currency to be considered legitimate.

In 2008, a person behind the pseudonym Satoshi Nakamoto released a *whitepaper* that was called “Bitcoin: A Peer-to-Peer Electronic Cash System” that introduced a new type of currency by the name of Bitcoin and fell under the new category of “cryptocurrencies” (BCS Financial Services Specialist Group, 2021). The whitepaper written by Nakamoto (2008) starts by criticizing the current financial system which is based on a trust based model, and claim that “What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party” (p. 1). In other words, the author highlights that there is a notable flaw in the current system and suggests that Bitcoin can serve as a more superior medium of exchange.

Bitcoin is a digital cryptocurrency that operates on a decentralized blockchain (Nakamoto, 2008; Lee, 2019), meaning that no third party intermediary is needed. It is based on cryptography where the transactions are stored and validated by other participants on a public blockchain ledger (Redhwan et al., 2019; Lee, 2019). Bitcoin is limited to 21 million coins in total, which means that new coins will continuously be mined until this number has been reached (Floyd, 2021). Mining is the occurrence of people using hardware to solve complex puzzles, and if a miner solves a puzzle he is awarded with a small amount of Bitcoin

(Lee, 2019). This process has been criticized in recent times for its energy consumption, something that has been contested by Vranken (2017) who argues that Bitcoin mining is actually viable from an environmental perspective as well. Like any other currency, one can use Bitcoin to buy things and also exchange to other currencies (Floyd, 2021). Since the launch of Bitcoin in 2009, there are thousands of different cryptocurrencies on the market which cater different needs. Other big cryptocurrencies include Ethereum which deals with smart contracts and Ripple's XRP which is alike the international SWIFT system (Nadeem et al., 2021; Frankenfield, 2022). Due to its novel and decentralized character, the crypto-industry is argued to be in need of tighter regulation (Lee, 2019).

### **Adoption of cryptocurrencies**

Adoption of cryptocurrencies has been studied extensively from the lens of consumers, but rather ignored from an organizational perspective (Redhwan et al., 2019). Bruijl (2017) and Greene (2016) states that there are primarily three reasons why consumers adopt cryptocurrency: (1) Interest in technology, (2) Possible investment, and (3) Pay for something anonymously. In 2015, nearly 50% of the US adult population had heard about Bitcoin or cryptocurrency, albeit only a fraction of the same group had ever used or owned crypto themselves (Schuh & Shy, 2016). Noteworthy to point out is that their paper was published roughly six years ago, which means that the perception and the adoption of cryptocurrency has likely changed since, especially considering the increase in total market capitalization of crypto. As a matter of fact, rapid price fluctuations and the volatility of Bitcoin is something that has been a recurrent discussion among research scholars and other stakeholders, which is argued to be one of the downsides with today's cryptocurrencies (Alcorn et al., 2013; Vranken, 2017).

Davis (1989) investigated what it takes for people to adopt or not adopt information technology (IT) and looked at two determinants that are important for the adoption of IT: *perceived usefulness* and *perceived ease of use*. The former refers to the inner belief one has towards a technology and how beneficial it seems, while the latter relates to the simplicity of a technology; how easy or difficult a certain technology appears to be. Nadeem et al. (2021) used Davis' (1989) theory to investigate a person's intentions to use and adopt Bitcoin. The results showed that perceived usefulness and perceived ease of use have a positive correlation to people's intention to use and adopt Bitcoin. However, it should be pointed out that Nadeem et al.'s (2021) study was conducted in China and targeted Bitcoin, which means that other results may be generated in different settings and for different cryptocurrencies.

Another study conducted by Alharbi and Sohaib (2021) explored peoples adoption to cryptocurrency by looking at technology readiness aspects, which include optimism, innovativeness, discomfort and insecurity. Their result showed that people that were optimists and innovative scored high on adopting cryptocurrency while insecurities and discomfort was tightly coupled with complexity and uncertainty which affects the adoption of new technology negatively (Alharbi & Sohaib, 2021). Moreover, Nielsen et al. (2014) conducted a study aimed at understanding the process of implementing a new technology (mobile IT) in a new setting, i.e. within the Danish home care sector. The authors, inspired by institutional theory, tried to explain how ideas can become taken-for-granted actions within a corporate

field, while only to be modified later through a *translation process* as ideas travel. Additionally, Sunstein (1996) discusses the significance of social norms and claims that money in itself deserves more scrutiny in social research because of its pivotal role in society. This is further supported in terms of cryptocurrency as well, where previous literature has largely ignored the human aspect of Bitcoin, (Nadeem et al., 2021), implying that more research is needed within the field.

## **THEORETICAL FRAMEWORK**

### **Scandinavian institutionalism**

The focal point of *Scandinavian institutionalism* encompasses a reconceptualized version of organizational change and has its roots in new institutionalism (Boxenbaum & Pedersen, 2009; Czarniawska & Sevón, 1996). In this context, *organizational change* refers to a “different pattern of practice, as noticed by the observers from the outside, a vision of a leader who wants to transform a faulty reality, or both?” (Czarniawska & Joerges, 1996, p.13). The relationship between stability and change has been a recurring topic for discussion in this field (Czarniawska & Sevón, 1996), where DiMaggio and Powell’s (1983) notion of isomorphism posits that organizations that belong to a particular field naturally become homogenized as result of coercive, normative, and mimetic pressure. However, this school of thought treats change as an anomaly from stability which is different from Scandinavian institutionalism that perceive change and stability in conjunction with each other as the organizational norm (Czarniawska & Sevón, 1996). These forces are interrelated and it is therefore suitable to employ a processual lens in order to understand how this relationship unfolds within cryptonative organizations. Ergo, a theoretical perspective based on Scandinavian institutionalism and its dynamic and paradoxical character can provide fruitful insights into how organizations become heterogeneous rather than identical (Boxenbaum & Pedersen, 2009; Czarniawska & Sevón, 1996).

Drawing on actor network theory and the work of Latour (1986), the concept of *diffusion* and the perception of *power* is reexamined to fit with Scandinavian institutionalism (Czarniawska & Sevón, 1996; Wæraas & Nielsen, 2016). In utopia, the diffusion model assumes that ideas are driven by an inner force and travel from one place to another without any resistance or changes, which is contrasted with the notion of *translation* where ideas may be eradicated, changed or propelled as they are negotiated by heterogeneous actors (Czarniawska & Sevón, 1996, 2005; Latour, 1986). The latter model of translation will be emphasized in this paper as it pays significant attention to meaning, sensemaking, material objects, and local variations (Boxenbaum & Pedersen, 2009; Czarniawska & Sevón, 1996, 2005). Accordingly, how people make sense of something can vary through time and space and it is important to recognize human *and* non-human actors. This reconceptualization also entails a change of how one perceives power in that power is not something that belongs to one individual, nor is it a cause, but is rather an effect of associations (Latour, 1986).

## How ideas travel

The concept of “travel of ideas” is pivotal in the work of Czarniawska and Joerges (1996), which is based on the ideology that organizations often implement similar ideas, technologies, or business practices during the same time period. However, in response to the traditional ways of perceiving change as either planned or contingent, Scandinavian institutionalism embrace both and adds the notion of *materialization of ideas* to further explain how things can be created, changed, and transformed over time and through space:

Ideas are images which become known in the form of pictures or sounds (words can be either one or another). They can then be materialized (turned into objects or actions) in many ways: pictures can be painted or written (like in stage-setting), sounds can be recorded or written down (like in a musical score) and so on and so forth. (Czarniawska & Joerges, 1996, p. 20)

As argued by Czarniawska and Joerges (1996), problems that evoke substantial public attention have increasing chances of staying relevant and “actions that can be represented as coupled to it have a greater chance of being legitimized” (p. 32). However, in order for people to assign meaning to a problem or an idea, it requires some familiarity as it may be difficult to understand a novel idea at first glance. As people seek out knowledge through an act of *discovery*, either intentional or at random, fuzzy ideas can turn into meaningful and revised ideas (Czarniawska & Joerges, 1996). Therefore, *sensemaking* is a pivotal concept in this process which “refers to the act of making sense of ongoing events and actions, often in a retrospective light” (Boxenbaum & Pedersen, 2009, p. 190). This explains how ideas can change throughout its journey because different people assign different meanings to things. When ideas and actions have been normalized in a particular setting, ideas are transformed into *quasi-objects* (e.g., a picture or a design) and later to objects or actions before it travels and becomes translated once again in a new setting (Czarniawska & Joerges, 1996; Czarniawska & Sevón, 2005).

But who or what determines which ideas become recognized as “promising ideas”? The logic of *fashion* is used to explain how institutionalized practices and norms are sometimes challenged, embraced, imitated and changed as the perception of what is fashionable is ever-changing (Czarniawska & Joerges, 1996; Czarniawska & Sevón, 2005; Røvik, 1996). In Sweden, paying with cash was commonplace for a long time, which was later a challenged practice as more and more actors started to pay with a debit/credit card, which is once again seeing a change as more people use mobile payment methods (Riksbanken, 2020). Fashion is a subjective term that directs attention to what is trendy, popular and in vogue (Czarniawska & Sevón, 2005). Additionally, fashion encompasses a paradoxical identity in that ideas circulate in a loop where things change as the status quo is challenged, but subsequently stabilize as organizational actors seek clarity and consistency (Czarniawska & Joerges, 1996). Through a collective process of translation, ideas are then reinvigorated by the acts of people which may result in different interpretations, practices, and ideas over translocal borders (Czarniawska & Joerges, 1996; Boxenbaum & Pedersen, 2009). Ultimately, ideas materialize in local settings “when words become deeds” (p. 41)

before they, once again, depart back into the global sphere where other ideas circulate (Czarniawska & Joerges, 1996).

### **The relationship between micro-macro actors and how they affect social norms**

At the heart of Scandinavian institutionalism is also an interest in “how organizations respond to institutional pressure” (Boxenbaum & Pedersen, 2009, p. 187). As ideas circulate on an institutional level, organizations tend to embrace some but ignore others. Micro-actors, i.e. organizations are naturally affected by the social norms established on a larger societal level, i.e. by macro-actors and vice versa (Czarniawska & Sevón, 1996). Accordingly, Røvik (1996) argues that organizations adopt socially constructed “recipes” that are considered prevalent in a given corporate environment and time frame. These recipes; ideas, business practices and methods are referred to as *institutionalized standards* because they have developed into attractive ways of structuring organizational life. However, like fashion, taken-for-granted business practices can also become *deinstitutionalized* as they lose their popularity. This reasoning underscores the importance of the social in that people perceive things differently through time and space (Røvik, 1996). A certain practice or method is therefore only in fashion as long as it is valued among its members. Organizational members imitate each other based on current trends but at the same time differentiate themselves from each other as they seek originality which leads to new creations, alterations and ultimately; new recipes for success (Røvik, 1996).

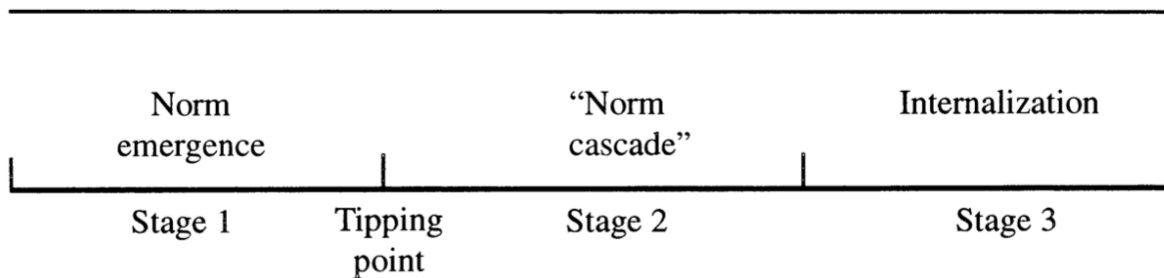
Following the conception that change occurs as a result of translated ideas on an organizational level, which in turn affects larger institutions, it is appropriate to acknowledge the global aspect in this process as well. With the recent advancement in technology, communication means have improved significantly and led to an evermore globalized world where ideas travel faster and more frequently (Spybey, 1996; Finnemore & Sikkink, 1998; Czarniawska & Sevón, 2005). In this regard, information is often free and easily accessible. Ideas are produced by individual actors in local settings which in turn become translated by macro-actors such as governmental institutions, and later spread across transnational borders (Spybey, 1996). However, this does not mean that everything is adopted in the same way at the same time; but rather point to the fact that both individuals and institutions have agency and influence over what becomes institutionalized. Therefore, universal ideas become translated in local settings and lead to different practices due to the polysemic nature of words, ideas, and actions (Czarniawska, 2012). This was highlighted by Nielsen et al. (2014) who claimed that implementing the same technology in two different settings can result in different organizational actions, which resonates well with the translation process that implies that any thing that moves through time and space will change (Czarniawska & Sevón, 2005). Additionally, Hedmo et al. (2005) argue that *carriers* of ideas are essential to recognize when trying to understand how ideas travel from one place to another. These are active agents that impact the formation of an idea and how it is being perceived. Therefore, to emphasize the role of actors, we also draw upon norm entrepreneurs (Finnemore & Sikkink, 1998; Sunstein, 1996) in order to explain how social behavior is influenced by people and companies.

## Norm entrepreneurs as the engine of change

Inspired by the seminal work of Sunstein (1996), the concept of “norm entrepreneurs” is borrowed to further explain how social norms are changed through the acts of people. What is fashionable (Czarniawska & Sevón, 2005) is highly related to social perceptions, which makes the correlation and utilization of norm theories meaningful. In this regard, norm entrepreneurs may be individuals, organizations or even states that act as agents for changing a norm; such as Martin Luther King Jr. did for justice for instance (Sunstein, 1996; Finnemore & Sikkink, 1998). They act as pioneers for a certain cause, driven by a need to reshape the current reality by convincing others to join their movement so that a new standard of behavior can be normalized (Sjöström, 2010). However, norms do not change as a result of one single actor, but require multiple people in different formations to work collectively (Sunstein, 1996). Therefore, norms such as “transacting with cryptocurrency” evolve and move through a three stage process (if successful) as depicted in Figure 1: “norm emergence”, “norm cascade”, and “internalization” (Finnemore & Sikkink, 1998). Each stage is categorized by certain actors, motives and events that influence the legitimacy of a norm.

**Figure 1**

*Norm life cycle*



*Note.* From “International Norm Dynamics and Political Change”, by Finnemore and Sikkink, 1998, *International Organization*, 52(4), p. 887-917

(1) *Norm emergence* is the initial phase where active agents such as norm entrepreneurs play a crucial role because they initiate, or frame a problem that evokes substantial public attention since they challenge the conventional norm in a local setting (Finnemore & Sikkink, 1998). Subsequently, they try to convince other actors to endorse new principles through some kind of platform and are typically motivated by altruism, empathy, and ideational commitment (Finnemore & Sikkink, 1998). In order to move beyond the “tipping point”, norms are adopted and endorsed by a larger number of actors, referred to as *norm promoters* (Sjöström, 2010) or *norm leaders* (Finnemore & Sikkink, 1998). The terms may be used interchangeably but the point is that they propel the ideas invented by the norm entrepreneurs forward.

(2) *Norm cascade* is the second stage in the process by which change in attitudes towards a specific norm intensifies drastically, regardless of domestic pressure. (Finnemore & Sikkink, 1998). Through an act of socialization, norm promoters seek to convince other actors to endorse new principles of appropriateness (Sjöström, 2010). The discussion often moves from being primarily local to global where macro-actors such as governments start to

embrace new principles since they long for legitimacy, conformity and esteem. (Finnemore & Sikkink, 1998).

(3) *Internalization* refers to the last step in the process which is achieved when norms are so ingrained in people's mind that it has received a taken-for-granted status (Finnemore & Sikkink, 1998). Consequently, discussions concerning internalized norms are typically neglected by political leaders and other stakeholders because they are more or less uncontested (Finnemore & Sikkink, 1998). As noted by Sjöström (2010), this may differ from place to place which means that norms can be entirely accepted in one country, but disputed in another.

## **METHODOLOGY**

### **The setting**

Due to the fact that we investigated the organizational process of using cryptocurrency, data from human actors were needed as we sought to understand the social interaction between organizations and cryptocurrency. Therefore, our setting included organizations that were affiliated with cryptocurrency in various ways and have been categorized based on their company function. A complete list of the organizations and its central function can be found in Table 1, but one could also generalize these actors into four broad clusters: exchanges, fintech, e-merchants, and lastly, one governmental entity. The exchanges provide customers the ability to buy, sell, and trade cryptocurrencies online. The fintech companies offer novel technological solutions for cryptocurrency stakeholders. The e-merchants sell products and services online and accordingly, accept crypto as a form of payment method. The governmental entity facilitates the transition towards a digitalized society in Sweden. Nine out of twelve organizations are Swedish, while three are international.

### **Research design**

In order to answer our research question: "How is cryptocurrency introduced and used by organizational actors?" - a qualitative case study analysis was chosen for the purpose of developing a rich understanding of cryptocurrency. Silverman (2015) argues that a qualitative approach is particularly suitable when examining social processes and *how* something is experienced; which we have taken into account in our study. Even though criticized for its narrow focus, a single case study analysis was chosen because it can provide rigorous explanations, and can as a matter of fact be generalized (Flyvbjerg, 2006). Thus, examining cryptocurrency in detail can provide fruitful insights to a wide range of stakeholders, including researchers. However, most studies conducted with a Scandinavian institutionalism lens have analyzed one singular company (Magnusson & Oskarsson, 2008), which is different from our approach given the fact that we have examined multiple organizations simultaneously. In this study, cryptocurrency is thus treated as the case while the companies are used as data sources. In order to capture the polysemic meaning of cryptocurrency, looking at multiple corporations can provide a more comprehensive view of how crypto is used in organizational contexts. In terms of validity, this will be achieved through a *constant*

*comparative method* where data from different companies, interviews and observations will continuously be contrasted and analyzed (Silverman, 2015).

In the matter of research subjects, the companies were chosen based on convenience (Silverman, 2015) and their association with crypto; where 19 interviews were conducted and took between 30 to 50 minutes to complete. Each and every interview was recorded and conducted digitally due to the Covid-19 pandemic, either through Zoom or Google Meet. Additionally, one observation was conducted at a private event hosted by Coin Gifts. The material was continuously transcribed and analyzed based on grounded theory which is argued to be an appropriate method in qualitative research (Silverman, 2015; Charmaz, 1996; Martin & Turner, 1986). This procedure transpired over the course of five months and allowed us to inductively examine our data and develop a theory that was appropriate in relation to our findings.

### **Data collection strategy**

With the help of contacts, email, social media, and company websites we were able to find appropriate individuals who work for cryptonative organizations to interview and based on a *snowball sample*, these respondents were able to provide us with additional research subjects to interview (Silverman, 2015). We collected primary data through semi-structured interviews that followed an *interview guide* based on certain themes (Silverman, 2015; Bryman & Bell, 2017). This allowed us to ask specific questions in relation to our themes, while at the same time providing sufficient flexibility for the interviewee to guide us in new directions if the person in question addressed topics that were previously unknown to us (Bryman & Bell, 2017). For instance, one of the themes in our interview guide involved “the role of cryptocurrency among organizations” and we therefore addressed questions that could help us understand how companies talk, behave and work with cryptocurrency in practice. Even though the authenticity of the interviewees’ statements can be questioned, we were not particularly interested in “truths” or “facts”, but merely accounts of the participants’ lives which were locally constructed together with us as researchers (Silverman, 2015). In that way, we constructed meaning to the narratives together with the interviewees.

In line with grounded theory, novel concepts and themes emerged during our study as we continuously gathered new data while we simultaneously analyzed the material we had collected (Charmaz, 1996). As a consequence of this iterative process, we approached some of the interviewees twice as the data required further exploration. A list of the participants may be found in Table 1 below, where fictional names such as “Logan” have been used for the interviewee and “Zello Trade” as a pseudonym for the company that he worked for.

**Table 1***Research Subjects: Participants*

| <b>Respondent</b> | <b>Working Title</b> | <b>Company</b> | <b>Company Function</b> | <b># of interviews</b> |
|-------------------|----------------------|----------------|-------------------------|------------------------|
| Dave              | Founder              | CryptoEx       | Exchange                | 2                      |
| Mark              | CFO                  | BitEx          | Exchange                | 2                      |
| Brian             | Employee             | DigitalEx      | Exchange                | 1                      |
| Lara              | Employee             | DigitalEx      | Exchange                | 1                      |
| Logan             | Co-Founder           | Zello Trade    | Exchange                | 1                      |
| Grant             | Employee             | Welloq         | Fintech                 | 1                      |
| James             | Employee             | Welloq         | Fintech                 | 1                      |
| Mary              | Manager              | ZCoin          | Fintech                 | 2                      |
| Mason             | Co-Founder           | Crypto Zite    | Comparison Site         | 1                      |
| John              | Co-Founder           | Novel Art      | NFT                     | 1                      |
| Max               | Co-Founder           | Coin Gifts     | E-Commerce              | 1                      |
| Henry             | Manager              | Coin Gifts     | E-Commerce              | 1                      |
| Jake              | Employee             | Coin Gifts     | E-Commerce              | 1                      |
| Joe               | CEO                  | CyberCo        | Payment Provider        | 1                      |
| Kevin             | CEO                  | Edomain        | Web Host Provider       | 1                      |
| Michael           | Senior Manager       | Government     | Digital Agency          | 1                      |

In addition to interviews, one observation was conducted at a private event in correlation with the Miami Bitcoin 2022 Conference. The event was hosted by Coin Gifts who invited us to interact with their employees and their collaboration partners. Several international stakeholders within the crypto community were present, including employees from Sweden, El Salvador, and Cuba but also other companies working with crypto. The meeting was held physically and took place at a private venue where informal interviews were carried out with multiple participants. Notes were also taken continuously. While combining interviews with observations as a form of data collection method does not necessarily result in a more accurate image of cryptocurrency, triangulation can generate a more nuanced view of the phenomenon in question (Silverman, 2015). This allowed us to observe what people do, how people talk, and how people behave (Silverman, 2015) in relation to cryptocurrency. In terms of secondary data, Google Scholar and the Gothenburg University library were predominantly used as search engines for gathering information within the field of cryptocurrency. Previous research as well as articles from recognized news magazines such as The New York Times and Forbes that addressed cryptocurrency were utilized to form the beginning of our paper. Given the importance of Nakamoto's (2008) original whitepaper, this document was also analyzed in detail.

## **Data analysis**

In line with the constructionist perspective, we examined how people actively made sense of their realities while presenting unique *accounts* of their lives and viewpoints (Silverman, 2015). We used an inductive approach based on grounded theory where we transcribed our data and analyzed the material continuously and iteratively (Charmaz, 1996). Emphasis was

on generating thick, contextual descriptions and paying attention to mundane occurrences at the site and during the interviews (Silverman, 2015; Martin & Turner, 1986). Thus, notes were taken shortly after the data collection where the material was coded and analyzed in different rounds with the objective of developing categories, memos, overarching themes and eventually, generating theory (Charmaz, 1996; Martin & Turner, 1986). For instance, if Mason said: “I heard about crypto in 2012 when a colleague told us he had invested in bitcoin, but we thought he was crazy and did not take it seriously back then” - that was coded as “Crypto initially perceived as a joke” and categorized as “Introduced to crypto” and ultimately, classified under an aggregated theme of “Making sense of new technology”.

By using the constant comparative method (Charmaz, 1996; Silverman, 2015), the material was continuously contrasted and compared in terms of statements, practices or opinions to ensure validity and reliability in our data. If deviant cases were discovered, that required us to conduct further research (Silverman, 2015). This procedure allowed us to move from notes to appropriate theories (Martin & Turner, 1986). For instance, material objects proved to be an important element for discussion, which incentivized us to utilize a theory that acknowledged the non-human aspect in research. In the findings section, we present much of the data through quotes of the interviews to preserve the human narrative of their accounts (Charmaz, 1996), as well as excerpts from the notes taken during the observation. In addition, the findings are presented through the lens of Scandinavian institutionalism to account for the introduction of cryptocurrency, how the idea of crypto has traveled, and how it is being used by cryptonative companies.

## **Limitations and ethical reflections**

This paper addresses cryptonative companies that use cryptocurrency in practice, which consequently means that companies that do not use crypto have been left out. The ramification of such a limited and selective sample size may be that only one side of the story is told. However, as Silverman (2015) highlights - this is commonplace in qualitative research and not necessarily a problem, the results of such a research design can still be generalizable to a wider scene. Additionally, consumers are not directly targeted in this study but may be argued to be indirectly included in the research as several of the respondents use crypto within the company, but also on a personal level. Another limitation of our study is that we have focused on the cryptocurrencies that were repeatedly brought up in the data collection, i.e., primarily Bitcoin and Ethereum. This means that numerous cryptocurrencies have been left out of the study, albeit this is not necessarily a problem since we still address the two largest coins and are first and foremost interested in cryptocurrency as a phenomenon.

Meticulous ethical considerations were also taken into account throughout the study; especially regarding anonymity, privacy, optional participation, and respect (Silverman, 2015). Prior to the interviews, a short description of our topic of choice was sent out to the participants with background information on ourselves and information containing the purpose of the study. We acknowledged the fact that interviews are typically characterized by a power imbalance, and tried to promote an environment where the respondents felt comfortable enough to object questions and raise personal concerns if so desired (Kvale, 2006). Each and every interview was recorded, where consent was asked for before starting

each session. The gathered data has been stored on a computer, which in due course will be deleted once the paper is completed (and passed). The respondents and the organizations that participated have been kept anonymous to ensure confidentiality. To avoid confusion, we have tried to keep a transparent dialogue with the participants throughout the whole research period. On some occasions, the interviewees have requested to review their quotes, which were provided for them.

## **FINDINGS**

The empirical data is presented in the following section through the lens of Scandinavian institutionalism and its core concepts: travel of ideas, the translation process, and the logic of fashion (Czarniawska & Sevón, 1996, 2005). This allows the reader to follow the journey of how the idea of cryptocurrency was introduced and traveled. In addition, this provides insight into how cryptocurrency is being used in practice as a result of the translation process, and why it is becoming adopted more widely.

### **The genesis of cryptocurrency**

Even though it is clear that Bitcoin emerged in 2008 when Satoshi Nakamoto released the whitepaper, it is rather impossible to trace the genesis of the idea of Bitcoin, or any idea for that matter. However, based on the whitepaper, it is apparent that Bitcoin was partly created in response to corrupt and mismanaged third parties (Nakamoto, 2008). Jake from Coin Gifts claimed that the correlation between the financial crisis and the creation of Bitcoin is undeniable: “It’s too much to be a coincidence - with the 2008 financial crisis and then Bitcoin (...) Bitcoin was created on purpose to avoid someone taking control of your money”. Among the respondents, there was an overall consensus that cryptocurrency was initially perceived as something sketchy and dubious, subject to a lot of question marks. What is it? How can I buy it? And how can it be used? Several respondents shared their stories on how they were introduced to cryptocurrency and it is evident that there was a lot of ambiguity around crypto, especially in the beginning and how to make sense of it. One contributing factor to this ambiguity as expressed by the respondents was the lack of information available.

2013 was the first time I heard the word *bitcoin* [emphasis added], and it was because it had increased significantly in price (...) I did not pay too much attention to it back then, but simply thought it was some kind of joke, a currency created without any serious intentions. There was barely any information about it back then either. (Mark, CFO BitEx)

The very idea of cryptocurrency was often proposed to the respondents by a colleague or a friend in the early days of crypto development. Joe even claimed that the functionality of crypto was actually better back in the early days when crypto was primarily used as a way to make payments, instead of it acting as an investment option. This, he argues, was the result of a period of commercialization done by the banks on Wall Street.

In the early days of crypto, the people who used crypto were actually the ones who believed in it and had knowledge about it (...). When Goldman Sachs and others came in, they destroyed some of the culture behind crypto. Instead of it being used as a payment, it serves more like gold, an investment. (Joe, CEO CyberCo)

However, this was an abnormal finding in our data collection as the vast majority of the respondents claimed that more attention from large corporations, governmental agencies, and institutional investors have led to faster adoption and better functionality.

### The “why” in cryptocurrency

Most of the respondents had a tentative experience with crypto at first glance. Dave explained that he and some friends attempted to invest in Bitcoin back in 2012 even though they did not fully understand it: “it was a scam, we never bought bitcoin, but it was on that occasion the seed was planted which led to further investigations.” The initial interaction with cryptocurrency therefore sparked some interest for the interviewee. Through an act of discovery where the respondent searched for more knowledge about cryptocurrency, he could eventually assign meaning to cryptocurrency as he started to become more familiar with the concept. As a matter of fact, it seems like enhanced understanding of cryptocurrency was the most critical factor that led each and every respondent to invest in crypto, work with crypto, and establish cryptonative companies.

The learning curve of understanding cryptocurrency varied between actors, but “once you understand what crypto is, you become totally hooked” as Mark said. This was further addressed by other respondents; that crypto has an addictive impact on the individual once you understand the technology behind it and what it can do. Therefore, sensemaking is a critical aspect in this process where crypto is argued to include numerous advantages over fiat money where some of the main ones include (1) decentralization, (2) cross-border payments, and (3) instant settlement times.

*Decentralization* means that cryptocurrency operates on an open network, i.e. blockchain where third parties have limited abilities to intervene.

Well, why is crypto such a good thing? Decentralized finance, there is no government that owns the currency. There is a free market where the price is controlled by the demand and the supply. Smart contracts and transparency are also positive aspects. (Dave, Founder CryptoEx)

Crypto is not issued by any state agency and is not backed by any commodity, but is rather controlled by the people as the value is stemming from increased demand and a finite number of coins. In contrast, fiat money is issued and controlled by the governments. State agencies also have the mandate to issue sanctions towards specific countries. These factors have made a strong case for a decentralized currency, especially in developing countries.

There are many many regions around the world, for example Africa or some Asian countries with high government control of the currency, those regions I think have much to gain from adopting Bitcoin (...). The U.S. has an embargo on Cuba which means that we can't use U.S.

dollars or have an online banking account (Jake, Employee Coin Gifts)

It is thus rational to believe that the demand for crypto is likely greater in countries that are imposed to sanctions and in countries where the domestic currency has devalued significantly. Ergo, crypto can serve as a well grounded alternative to fiat money as “crypto is a currency of the people” (Kevin, CEO Edomain). Moreover, traditional financial services are also pressurized as a result of the decentralized nature of crypto, including its anonymous capabilities.

You have all of these payment solutions: PayPal, Stripe, invoices etc. Bitcoin is borderless and difficult to stop. A VISA card does not work in all countries and PayPal does not work in all countries but bitcoin, as I said, you change your local currency to bitcoin and then pay us - it is not possible to stop the transaction (...) and it's anonymous to some extent. (Joe, CEO CyberCo)

*Cross-border payments* means that cryptocurrency can be used as a global currency without any banks, governments, or other regulatory oversight interfering with transactions. This may seem like a minor issue in the Western World where “trustworthy” banks are in place, but a severe problem in regions where they lack a solid financial system. Thus, as highlighted by one of the respondents, people can utilize crypto as long as they have access to the Internet.

So with bitcoin, you have the possibility to access it everywhere in the world, and you only need to have an internet connection. In the EU region, it is normal to have a bank account, but if you look throughout the world, there are so many people that don't have access to a bank account, and bitcoin is an amazing way to help those people to access financial services. (Lara, Employee DigitalEx)

This was exemplified by a respondent living in Cuba, who mentioned that the U.S. embargo on Cuba has made it impossible for him to transact over the Internet with traditional banking services, or even use a U.S. bank card for that matter.

Pretty much anything that will be described as online banking is banned; no credit card, debit card, or PayPal in Cuba. So pretty much, the only option is Bitcoin and cryptocurrencies. For some people, like me, that has been real life-changing. (Jake, Employee Coin Gifts)

Additionally, as one respondent argues, in situations such as the current crisis in Ukraine, people from other geographical regions might want to send money worldwide without paying a substantial fee to a third party.

How we solve another problem that I didn't mention before, it's cross border payment. Uhm, you can just send, if you want to donate now to someone right? You want to help, for example the people from Ukraine. Uh, you don't have to pay for going to Western Union, converting a Swedish krona to maybe a Russian ruble? (...) so all in all, you will lose about 4-5% just for wanting to donate something. But if you donate with crypto, you just get your wallet address,

you send it to another wallet address (...) it's easy, the cost is much much lower than when you pay with a VISA or MasterCard. (Mary, Manager ZCoin)

*Instant settlement times* is argued to be a monumental advantage of cryptocurrency in comparison to fiat money, highlighted by the respondents who work within the fintech sector.

With our affiliate solution, we help e-merchants with direct payment settlements because when it comes to e-merchants, one of the most major problems is chargebacks (...) This [chargebacks] means that the transaction can take up to three days and during this time, the customer can dispute the item and actually reverse the payment even if the customer already received the product. (Grant, Employee Welloq)

Chargebacks cause several issues for e-merchants and is therefore mitigated by instant settlement times which cryptocurrency enables. Furthermore, traditional international money transfers can take days to complete, including a substantial fee from the banks, which is also reduced by using cryptocurrency.

If you go now and buy a jacket and pay \$8,000, you scan the QR code and within a few seconds you'll see on [*sic*] your screen that the payment is completed. So it's super fast and cheap. Uhm, and it's available to everyone, right? You can send it from Sweden to Morocco in a few seconds. (Mary, Manager ZCoin)

### **How ideas materialize in relation to cryptocurrency and go places**

The underlying technology that enables cryptocurrency to function is blockchain. This has been praised by all the respondents for its fantastic features and possibilities. The founding father of Bitcoin, Satoshi Nakamoto had written an exceptional code according to one of the respondents, and claimed that it incentivized him to dig deeper into blockchain and crypto.

Once I read the whitepaper, I was totally dragged into the crypto-sphere and realized that this could really be the future (...) If you buy a banana or a computer mouse, we can actually see how this product has traveled through space and time. (Dave, Founder CryptoEx)

The whitepaper can be described as a quasi-object because it contained a design of how Bitcoin can work in theory, which incentivized actors to act on that idea. Due to sensemaking, actors have assigned different meanings to crypto and what it can do. The advantages of crypto are promoted by several cryptonative companies who actively try to increase the knowledge curve of cryptocurrency. As addressed by Max from Coin Gifts, they spread information “through weekly podcasts held by our marketing department, interviews, and speaking at public events”. This was further noticed during the observation, where oral communication was used as a means to spread knowledge and information about cryptocurrency.

Human and non-human actors have thus modified the idea of Bitcoin as it travels and become translated, which has resulted in various objects and actions. An example that demonstrates this can be found among the company's cyber security practices. If companies keep cryptocurrency in their inventory, they typically store the money on a physical

hardware, also referred to as a *cold storage*. If they actively use crypto in their daily operations, they keep the crypto in a *warm wallet* that is connected to the internet.

When it comes to security, we obviously have both a hot wallet and a cold storage to store the crypto to make sure that the security is neat (...) but to have everything in the cold storage takes too much time - so those cryptos that are in circulation are kept on an online hot wallet. (Grant, Employee Welloq)

The objectification of cryptocurrency thus occurs through physical crypto wallets. The access to these wallets has been a recurring talking point among the respondents, where one of the main issues with keeping crypto on a physical ledger is: “who has the ultimate responsibility of this ledger?” as one person said. If the wallet is lost, the money is gone. However, several of the companies have claimed that they use *multi signatures* to deal with this problem, which means that several people can and must sign in to be able to move money. This illustrates that power is not reserved to one person but is rather an effect of different associations; including non-human actors. Only when human and non-human actors work together, can cryptocurrency be stored and used in the network.

## **The translation process: Cryptocurrency’s role in organizations**

Despite the fact that cryptocurrency has been argued to serve a monumental role in the future, in some way, understanding crypto’s role in *current* organizations is of utmost importance as it brings more nuance to the field. This further highlights how ideas materialize in local settings when ideas and words are transformed into actions and deeds. Our findings showcase that cryptocurrency is not exclusively tied to one function for all companies, but rather serves multiple roles simultaneously depending on the organization’s core business model. This can be explained by the translation process where different types of actors perceive cryptocurrency differently; and thus enforce different working methods. The following section provides insight into how crypto is used in practice and what role crypto has among the organizations investigated.

### **Exchanges**

Crypto exchanges are essentially online platforms where individuals can buy, sell, and trade cryptocurrencies. They are highly dependent on cryptocurrency since their core business models are based on crypto, which Dave demonstrated by his quote: “we are synonymous with crypto”. If the adoption of Bitcoin and cryptocurrency would expand significantly, that would have a radical impact on these organizations as more consumers would likely use their platforms. Exchanges work as online websites where individuals can convert fiat into crypto and vice versa.

Zello Trade converts cryptocurrencies to Swedish Kronas and other currencies with each other. One could compare it to a digital Forex office but with cryptocurrency (...) you take a percentage share of every conversion between fiat and crypto and that is how you make money. (Logan, Co-Founder Zello Trade)

In practice, the actual conversion differs to some extent since some exchanges match buyers and sellers through their platform, like BitEx who has an order book - while others keep their own crypto inventory, like Zello Trade who acts more like a traditional stockbroker.

They [Zello Trade] buy crypto and store it as inventory and then sell it to customers who wish to purchase crypto, while we don't own any crypto. At BitEx, the customers place their money on our platform and then trade with each other. (Mark, CFO BitEx)

A third option is also feasible, where consumers can invest in exchange-traded products (ETPs) backed by the underlying coin. This is another financial instrument that DigitalEx offers to provide a simple way for actors to invest in the crypto market.

What we are really trying to do is build a bridge for traditional investors to invest into the modern, or innovative crypto world (...) so when you buy Bitcoin or Ethereum ETP on NASDAQ Nordics for instance (...) it's always backed 100% physically by the underlying cryptocurrency. (Brian, Employee DigitalEx)

On top of offering a simple way of investing in cryptocurrencies, DigitalEx perceive themselves as a knowledge transfer agent where their goal is to educate stakeholders who wish to learn more about crypto, and as a disrupter in the field.

And equally important, take on a role as a kind of, I would say knowledge transfer agent (...) it [crypto] has affected us in a very positive way of being perceived as an innovator, as a young company, as a modern company, and as a disruptor as well in the market. (Brian, Employee DigitalEx)

Additionally, exchanges also have internal company practices in place that involve crypto. As highlighted by one of the respondents, they keep some Bitcoin on the balance sheet to hedge against inflation. This has been pointed out by several respondents as a hypothetical way for companies to use Bitcoin in practice, but was demonstrated by BitEx.

There is currently a lot of discussion about bitcoin and how it can act as a hedge against inflation. And in my point of view, we are not there yet but it will eventually become a common business practice. That is why we have a small strategic portion of bitcoin on the balance sheet (...) just because I have to "walk the talk". (Mark, CFO BitEx)

The logic behind this is that companies with excess cash must invest their money because if they store all the money at a bank, and the bank goes bankrupt, companies obviously lose their money. Ergo, companies typically invest in securities to receive a small return on their investment, but in recent years the interest rates have been either extremely low or even negative which makes that investment option rather useless.

The problem is that in recent years, these securities have actually had a negative, or in other words, a real interest rate which means that even if you invest in these, you still lose money.

Therefore, a lot of people argue that bitcoin can serve a role there, because bitcoin has historically at least kept its purchasing power over a 2-4 year period, and its incredible liquid. (Mark, CFO BitEx)

## **Fintech**

Welloq is a fintech company that acts as an innovator in the crypto ecosystem where novel crypto solutions are always on the agenda. Cryptocurrency is essential for them as their product portfolio is entirely dependent on crypto. They have three main services in place on their website: an affiliate solution, a merchant option, and a mobile application.

With the affiliate solution, we help e-merchants with what I said earlier, to receive payment settlements instantly (...) in terms of the merchant, one could compare it to Klarna where you will see Welloq-Pay as a payment option at the checkout (...) and then we have recently launched an application that is supposed to work more as an exchange service function where you can buy, send, swap, and sell. (Grant, Employee Welloq)

Welloq's prime focus is on mass adoption of cryptocurrency, and their solutions are supposed to remove barriers in the market to improve the simplicity of crypto practices. Internally, they have informal development programs in place where employees within the company share information with each other to enhance the knowledge curve of crypto, but they are currently trying to employ more formal programs where experts such as Grant can host information meetings. On top of that, they are working on a "learning section" within the mobile application to offer customers more access to reliable knowledge. In terms of their own crypto inventory, it is more or less always in circulation and that is also argued to mitigate the risk of volatility, so they do not hold large amounts of crypto themselves.

*ZCoin* is another fintech company that specializes in crypto trading and payments. Their trading business works similar to the previous exchanges mentioned above, while their payment solution enables companies to accept crypto as a form of payment.

We could be a crypto broker for the trade part (...) on the other side, where I'm actually more specialized, it's payments. So let's say that you want to go to X and buy a jacket and then you want to buy it with crypto instead of buying it with your credit card or bank transfer, then you could do that through us, so in this case we are a payment processor. (Mary, Manager ZCoin)

Additionally, the respondent claims that companies like *ZCoin* are essential because they provide the tools needed for crypto to be used on a more practical level among individuals.

But what is the idea of just having them [cryptos] in your wallet? You have to be able to spend them as well, so that's where we come in, and we give you the possibility to use your cryptos and buy real products, buy a house, buy a car, buy some clothes. (Mary, Manager ZCoin)

## **E-merchants**

The e-merchants in our data collection work similar to each other in that they accept cryptocurrency as payment, albeit they sell different goods and services. *Coin Gifts* consider themselves as the largest company in the world in terms of products sold via crypto, as Max thinks that “1/3 of all Bitcoin payment transactions for goods” are going through their website. They offer an array of different products, but their main ones include SIM cards and gift cards. Their internal processes are centered around crypto, and they even pay out salaries in crypto.

Several employees receive their salaries in crypto because a lot of them are working remote, and travel and essentially live on crypto, which means that they receive bitcoin regardless of which country they are in, and then convert it to the local currency if needed, which is rarely the case anymore because you can buy stuff through us or other solutions. (Max, Co-Founder Coin Gifts)

*CyberCo* is a company specialized in VPN solutions, and focuses primarily on anonymity. Therefore, all the research and development happens in-house, including the blockchain because they want to control the information. When they receive a Bitcoin payment, they keep it for roughly 30 days and then convert it to fiat money through a third party platform.

We are a VPN provider aimed at privacy (...) and it [crypto] is simply an additional payment option and represents roughly 9-10% of our yearly revenue, which has been a constant number over the years and it's not only bitcoin but also bitcoin cash. (Joe, CEO CyberCo)

*Edomain* is an international company aimed at web hosting. The CEO of Edomain, Kevin, started to accept crypto back in 2010 in his previous company and thought it was an obvious choice to accept Bitcoin for Edomain because the global demand is increasing.

I don't really remember what the price was at this time, but it was the beginning and when that happened there were only a few orders we used to receive compared to nowadays; 60% of our revenue is actually from cryptocurrency, bitcoin. But at that time it was, I would say probably 10%. (Kevin, CEO Edomain)

As seen, the above mentioned companies work with different solutions to propel the idea of cryptocurrency forward. However, the idea itself and what one could do with crypto is continuously transformed as heterogeneous actors perceive crypto differently which results in various practices. Cryptocurrency exchanges convert fiat to crypto, fintech companies facilitate crypto payments for other actors, and e-merchants accept crypto as payment. These business practices are thus arguably institutionalized because they have developed into taken-for-granted ways of conducting businesses in these local organizational settings.

## **Resistance in the translation process**

Not all actors work for the support of cryptocurrency. There is an ongoing political debate that spans over several topics regarding cryptocurrency which is grounded on the idea that it

is difficult to regulate cryptocurrencies. Dave pointed out that this includes politicians arguing that cryptocurrency is being used as part of illegal activities such as drug use, money laundering, and tax avoidance. Elements of resistance are thus in place, but each type of action impacts the notion of cryptocurrency in various ways. Countries have enforced domestic rules that influence the adoption of cryptocurrency which highlights the contextual factor in the translation process. For instance, El Salvador has recently decided to adopt crypto as its official currency while the Chinese government has banned crypto-related transactions.

So if more countries will go legal tender as El Salvador, this will have such a good impact on the crypto space (...) there are so many countries like in Asia for example where crypto is still unregulated and you cannot do business for example, in China. (Mary, Manager ZCoin)

The unregulated nature of cryptocurrency in some settings has thus been argued to be a major downside. Additionally, the perception of cryptocurrency among banks has largely been pessimistic. Banks have actively tried to stop crypto related transactions and even banned certain bank accounts because of their affiliation with cryptocurrency.

Banks, especially in Sweden, don't like cryptocurrencies. We have had really excited clients who has started a business account at a bank and said: "I want to put some bitcoin on the company's balance sheet" and as soon as they should send the money to us, the banks say: "if you send money to that company, we will close your business account". (Mark, CFO BitEx)

For cryptonative companies, this is a major problem since not all companies are willing to take the risk of dealing with cryptocurrencies because of this. Several respondents have also pointed out that they do not even have a Swedish bank account and therefore use international banks instead - which showcase a fundamental issue for companies that wish to conduct crypto related businesses in Sweden. Moreover, the Swedish tax authorities as well as auditors have historically been unable to provide much help for the cryptonative companies since they lack knowledge.

The first time that we called the tax authority and asked them how we would declare tax on cryptocurrency, they asked us what bitcoin and cryptocurrency was, which was pretty blithering (...) and the first time that we tried to find an auditor it came to a complete halt. (Joe, CEO CyberCo)

Furthermore, there is an ongoing debate with regards to the environmental impact that cryptocurrency has because of the energy consumption required to mine crypto and validate transactions on the blockchain.

There is a huge focus on Environmental, Social, and Governance questions (...) which if you ask me is a total scam. I think that time will show that critics are wrong with regards to the negative aspects of crypto connected with climate impact. We see that in several locations where bitcoin is being mined, that it is actually CO<sub>2</sub>-negative. Meaning that it reduces the amount of CO<sub>2</sub> in the atmosphere. (Mark, CFO BitEx)

Even though the sustainability discussion regarding cryptocurrency is popular in mass media, the vast majority of the respondents claimed that the environmental debate is over exaggerated and pointed out that Bitcoin has a lower impact on the environment than traditional payment solutions.

As highlighted above, heterogeneous actors negotiate about the legitimacy of cryptocurrency and it is evident that banks are causing some problems for the adoption of crypto. Governments who support a crypto infrastructure by providing clear rules and standards are argued to help the adoption of cryptocurrency. If the judicial system is not in place, it is difficult for companies to conduct crypto businesses there. This has the implication that cryptonative organizations are often established in countries where the rules and regulations around crypto are progressive. An example of this was illustrated by Mary from ZCoin, who claims that Europe is a leading market in this regard because regulators have gradually enforced distinct rules about cryptocurrency usage: “one of our co-founders was one of the first persons who went to Luxembourg and he actually wrote some actual laws towards crypto and how to make it more regulated”. Additionally, as seen, the respondents have highlighted that the disapproval of cryptocurrency based on environmental claims is ungrounded.

### **The logic of fashion and cryptocurrency**

What then, explains why Bitcoin and the idea of cryptocurrency is translated in the first place? Objects and ideas are typically adopted and imitated when they become recognized as modern and in style. As the idea of Bitcoin gained ground in various contexts, this resulted in the creation of numerous “alternative coins”. Creators recognized Bitcoin as a promising idea which in turn produced new cryptocurrencies, things and practices due to the translation process. The public perception of cryptocurrency is arguably going through a period of transformation as more organizations, individuals, and institutions (e.g. El Salvador) utilize crypto. One of the respondents at the Coin Gifts’ event in Miami is an El Salvador resistant and said that: “yes, I use it [crypto] more or less every day. Yesterday, I paid the gas for my car in Bitcoin”. The demand is increasing worldwide and it seems like using cryptocurrency is becoming a fashionable practice. This has stimulated a massive global debate, leading to more and more actors showing attentiveness towards cryptocurrency.

Globally speaking, you can see that more and more people want to have the ability to pay with crypto, more people are increasingly exposed to crypto. Nigeria has 32% adoption for example, and in Ukraine you have 13% and then in Russia, I believe they have 12%. So there is actually a quite large degree of the global population who uses crypto. (Grant, Employee Welloq)

Following the significant increased public attention that crypto has received, along with the substantial value increase over the last ten years, more actors have utilized crypto’s function which in itself speaks for its legitimacy. Moreover, as previously mentioned, DigitalEx argues that using cryptocurrency has had a positive impact on their brand image because they are being perceived as modern and innovative. Thus, companies seem to utilize crypto because

they believe that crypto is the next big thing. Kevin referred to a cashless society in the near future and claimed that “the development of crypto is inevitable, and will eventually come to the point where every single person on the planet will be using crypto in one way or another”.

The institutional pressure established by financial institutions and other macro actors has led cryptonative organizations to respond in their own ways. If domestic banks do not allow companies to set up bank accounts in their country, they work around it and find international banks who are willing to support crypto transactions. Subsequently, micro-actors such as cryptonative organizations also facilitate the development of the crypto ecosystem which in turn influences larger institutions.

It is of course that the companies enable the development that takes place, had it not been for a company that developed the infrastructure, software and the like, cryptocurrencies would not be where they are today. (Logan, Co-Founder Zello Trade)

### **Institutional standards among cryptonative organizations**

In terms of cybersecurity, protocols for dealing with cryptocurrency have also been established, such as using physical wallets for storing cryptocurrency: “I mean if you deal with crypto, you have to have a wallet” (Mary, Manager ZCoin). It was also apparent that storing crypto in a hot and a cold wallet was an institutional standard. With the hot wallet being used for daily operations while the cold one was used to store crypto. In addition, using multi-signatures to move money have also developed into a common practice among cryptonative organizations.

There is something called “multi-signature” and that is a standardized practice in the crypto industry. The number of people required to sign can vary depending on your preferences. For instance, if you want to move less than 100,000 SEK 2 people might be needed, but if you want to move more than 1,000,000 SEK 5 people might be needed. (Mark, CFO BitEx)

In terms of cryptocurrency’s role in today's society, the most negative aspect of crypto is arguably the volatile nature of cryptocurrency. As a result of the vast fluctuations in value, companies and consumers are scared of investing in crypto because it imposes certain risks and uncertainties. Ironically, though, as highlighted by James: “when crypto prices fluctuate significantly, it often means that our clients buy and sell more via our service which is good for us”. However, he also agreed that the most pressing issue with cryptocurrency is the volatility around it, but simply pointed out that it is a profitable aspect for *Welloq*. One way to counter this problem has been to convert cryptocurrency to fiat money as quickly as possible.

We usually try to convert the money on the exchanges right away to make sure that we kind of maintain that because as a company we cannot be part of the uncertainty of volatility, that going up and down is mostly for traders to work on, but as a company we need the cash flow. If you receive \$5000 from someone, you need to make sure you receive that, because if it goes down you basically lost some of what you received, so that's usually a tricky situation, but I try to as much as I can with the team to quickly exchange what we need to use it for the expenses the company has. (Kevin, CEO at Edomain)

The act of converting cryptocurrency to fiat money was commonplace among all the companies who were reluctant to keep crypto as a store of value, and preferred to pay out salaries in fiat cash. This indicates that even cryptonative companies adjust to the external environment. Evidentially, though, there are no universal principles that work for all situations; but one can clearly see a pattern in how cryptonative organizations deal with cybersecurity and volatility. These recipes for success have spread through translocal borders and developed into fashionable ways of organizing corpore life among cryptonative organizations. Thus, institutionalized standards currently exist in this regard, but it does not mean it will always stay this way. If people do not perceive crypto wallets as valuable anymore, or if cryptocurrency becomes less volatile, things will likely change.

## **Summary of findings**

Cryptocurrency was initially perceived as something dubious among the respondents. As information was scarce in the early days of crypto, there was a lot of ambiguousness in how to use crypto as it was difficult to find trustworthy information. Through an act of discovery when the respondents searched for more knowledge in the field, they became convinced that cryptocurrency is here to stay as soon as they understood what crypto is and how it can be used. More specifically, (1) decentralization, (2) cross-border payments, and (3) instant settlement times were argued to be three main advantages that cryptocurrency includes compared to fiat money. Based on the findings, decentralization is arguably the most controversial as the respondents praise the unregulated qualities of cryptocurrency, while at the same time advocating for more regulation. Should cryptocurrency users risk their current autonomy in the market only to let governments and financial institutions decide the rules of the game? In regions where they lack regulation, it is extremely difficult for companies to conduct businesses there, which is argued to be a motive for enforcing more distinct laws. In addition, crypto is commended for its anonymous features but at the same time glorified for its transparent abilities in that transactions and goods may be traced via the blockchain. Therefore, cryptocurrency comprehends a paradoxical identity which resembles the nature of Scandinavian institutionalism.

In terms of how ideas materialize in relation to cryptocurrency, the whitepaper designed by Nakamoto (2008) can be described as a quasi-object. Accordingly, the whitepaper has incentivized multiple different actors to act on that idea which has led to various different practices as well as objects. Based on the findings, the most pivotal non-human actor is the crypto wallet; indicating that physical objects currently have an important role to play in the crypto network.

Through a process of translation, ideas of crypto have developed into heterogeneous companies and actions. The crypto exchanges work with converting fiat cash to cryptocurrency and are motivated by creating a bridge between the traditional financial system and the new crypto system. The fintech companies primarily work towards mass-adoption by making it easier for companies and individuals to use crypto in practice. The e-merchants accept crypto as payment and therefore allow more people to use crypto as a medium of exchange. By accepting crypto, they add an additional revenue stream that does not cannibalize their existing operations since adding crypto as a payment method only opens

up for a wider audience. These actors have developed different practices and actions based on various interpretations of what crypto is and what it can do. As seen, domestic banks have actively worked against some of the cryptonative companies which has led to international collaborations.

The global demand of using crypto has increased significantly over the last few years and it is evident that using crypto is becoming a more popularized standard among consumers, companies, and governments. By using crypto, the cryptonative organizations perceive themselves as modern and innovative which indicates that using cryptocurrency is a fashionable trend. Temporal institutionalized standards have developed among the cryptonative organizations vis-à-vis security protocols; like using physical hardware wallets to store crypto and multi-signatures to access the money on the wallets.

## DISCUSSION

Drawing on the findings, the following section is analyzed based on the “Norm life cycle” (Finnemore & Sikkink, 1998) shown in Figure 1 to explain how cryptocurrency is understood in terms of norm evolution and as a societal phenomenon. A thorough discussion vis-à-vis Satoshi Nakamoto as a norm entrepreneur is presented, followed by a critical analysis of cryptonative organizations acting as norm promoters.

### Stage 1: Norm emergence

The founding father of Bitcoin, Satoshi Nakamoto, may in analytical terms be considered the original norm entrepreneur (Sunstein, 1996; Finnemore & Sikkink, 1998; Sjöström, 2010) of cryptocurrency usage. Nakamoto (2008) released the whitepaper on the Internet in 2008 which problematized the issue with the current financial system and the trust based model. The author articulated a solution (i.e. Bitcoin) that is based upon radically different premises than fiat money. This comprises a digital currency that is decentralized and does not require any third parties. Nor is cryptocurrency issued by any government but is rather a currency created by ordinary people. Therefore, Nakamoto can be said to have challenged the very foundation of the monetary system that has dominated the global economy over the last centuries. This means that the pre-existing norms regarding the traditional centralized currency, controlled by established financial institutions and governmental agencies were scrutinized and threatened. A new ‘standard of appropriateness’ (Finnemore & Sikkink, 1998) of transacting with cryptocurrencies instead of fiat money was suggested.

In order to persuade other actors to acknowledge and embrace a new norm, *organizational platforms* are argued to be pivotal (Finnemore & Sikkink, 1998). In 2008, Nakamoto proclaimed the functionality of Bitcoin and its potential on “metzdowd.com”, which is a forum focused on cryptography (Frankenfield, 2021). This may in theoretical terms be considered the organizational platform where information concerning Bitcoin was initially communicated. However, in contrast to previous literature that argues that norm entrepreneurs need to play an *active* role in the emergence phase (Finnemore & Sikkink, 1998; Sjöström, 2010), we argue that norm entrepreneurs can hold a rather *passive* role and still be labeled as ‘norm entrepreneurs’. This is strengthened by examining the inherent

meaning of “norms” and “entrepreneur” individually. Norms entail an idea of what is considered normal and correct, and typically guide a certain behavior (Sunstein, 1996; Finnemore & Sikkink, 1998), and Bitcoin stimulated an array of different actors to pursue a new behavior. An entrepreneur, on the other hand, is ultimately concerned with *newness* (Sjöström, 2010) and Bitcoin was certainly new, groundbreaking, and potentially revolutionary. In this sense, norm entrepreneurs are primarily judged by their actions and work; not their personality, gender, or public appearance.

Our findings indicate that it was the whitepaper that incentivised other actors to consider crypto as a legitimate phenomenon, not Nakamoto himself. Nakamoto can instead be regarded as a silent, even mythical character that is cherished for his, her, or their work which was released under an anonymous identity. The whitepaper is understood as a quasi-object (Czarniawska & Joerges, 1996) that persuaded early adopters of Bitcoin to pursue a new behavior based on digital currencies. Consequently, the whitepaper is translated by various actors and in different ways, but altogether contributes to the norm established of cryptocurrency usage.

Typically, norm entrepreneurs are motivated by empathy, altruism, and ideational commitment (Finnemore & Sikkink, 1998) but may very well be driven by pragmatic reasons as well (Sjöström, 2010). Based on the whitepaper, it appears that Nakamoto (2008) was particularly motivated by the ideals embedded in Bitcoin and what a decentralized currency can achieve; namely emancipation for people. The effect of this was exemplified by Jake from Coin Gifts who implied that cryptocurrency has been life-changing for someone like him who lives in Cuba under strict financial restrictions. Without crypto, he would not be able to transact internationally. The advantageous functionality of Bitcoin is also proclaimed on the whitepaper, which indicates that Nakamoto had a pragmatic agenda as well by adhering to its superior capabilities over fiat money. Even though the vast majority of the respondents had a skeptical attitude towards crypto initially, this changed as they read the whitepaper which once again, shows the importance of non-human actors (Latour, 1986) as the whitepaper persuaded individuals to use Bitcoin.

Norm entrepreneurs are argued to be more influential during times of uncertainty, and in fragile environments (Sunstein, 1996; Sjöström, 2010). Interestingly enough, Bitcoin emerged during the same time period as the financial crisis in 2008 which affected millions of people negatively. Based on the findings, it is apparent that cryptocurrency was developed as a result of mistrusted third parties and governments. A certain domestic pressure (Finnemore & Sikkink, 1998) started to form as various actors started to pressurize governments by asking questions about tax and regulation rules for crypto. In more fragile environments where they lack a trustworthy financial system, it appears that crypto is set to serve a more functional role. Hypothetically, this means that developing countries that rely heavily on cash as a medium of exchange, rather than debit/credit cards, can potentially skip an innovation step by moving straight from physical bills to digital currencies. Even in modern societies where fiat money has long been considered a taken-for-granted practice, norms about how one best should deal with money started to transpire as cryptocurrency entered the scene as an alternative payment option. A radical transformation was suggested by Nakamoto which stimulated various actors to seriously consider cryptocurrency as a new, acceptable currency.

The following period was characterized by a highly contested environment (Finnemore & Sikkink, 1998) where norms about fiat money versus cryptocurrency were debated.

Unsurprisingly, the idea of crypto was often rejected initially by multiple stakeholders. Among traditional institutions such as banks, tax authorities, and audit firms; skepticism around the feasibility of cryptocurrency emerged, including its legitimacy. Environmental concerns were raised in mass-media and the complicated nature of investing in Bitcoin in the early days of crypto also led people to form doubtful opinions about it. Theoretically, this implies that there are elements of resistance in the translation process (Czarniawska & Sevón, 1996; Latour, 1986). However, as the market capitalization of cryptocurrency started to increase, combined with more widespread information, this incentivized people to reconsider crypto as legitimate phenomena. Henceforth, the idea of crypto was not dropped, but rather modified by different actors (Latour, 1986). Once the respondents in our findings understood how cryptocurrencies could be used, they were totally absorbed by the technology. Cryptonative organizations were established and the idea of transacting with cryptocurrency started to spread. Norms about a currency that is accessible anywhere in the world, as long as one is connected to the internet, started to shape the cognitive mindset among people and ultimately the formation of distinct communities.

Through a collective process of translation (Czarniawska & Joerges, 1996; Boxenbaum & Pedersen, 2009), the idea of crypto has changed throughout its course. The ongoing debate about the decentralized nature of cryptocurrency may be understood as a paradox; where crypto is praised for its borderless and liberating abilities, while at the same time calling for more regulation among corporations. It is suggested that providing clear rules and regulations for cryptocurrency transactions work in favor of crypto adoption, but it is reasonable to believe that this also means more governmental control. Somewhat of a dilemma is thereby in place, where crypto advocates want regulators to act, while not causing crypto to become another centralized currency. In theory, Bitcoin allows people to transact without any middlemen but the data showcase that companies, i.e. third parties have an important role to play even in the crypto economy. Cryptonative organizations, and especially fintech companies, work towards mass-adoption of cryptocurrency by removing barriers in the market. They provide the infrastructure required to use cryptocurrencies on a daily basis more efficiently. Clearly, switching from using fiat money to cryptocurrency does not happen overnight, and little normative change happens due to one singular person - but requires multiple actors to take initiative (Sunstein, 1996). This is being seen by the cryptonative companies that can be argued to act as norm promoters because they adhere to the principles proposed by Nakamoto, and actively work towards mass-adoption of cryptocurrency.

### **The tipping point**

If the tipping point is reached, an alternative behavior centered around a novel norm is adopted and endorsed by a critical mass of norm promoters (Sjöström, 2010; Finnemore & Sikkink, 1998). One might ask what is considered a “critical mass” and who are these norm promoters? Finnemore and Sikkink (1998) suggest that adoption by one-third of norm promoters in a given network are typically required. Obviously, this numerical number may vary but it provides a criterion for determining if cryptocurrency has reached the tipping point

or not. In the cryptocurrency network, it is apparent that numerous stakeholders have adopted a behavior centered around digital currencies. Cryptonative companies may be considered as norm promoters (Sjöström, 2010) because they have adopted the core principles embedded in cryptocurrency usage, and actively try to make it more widely accepted through their services and actions. A similar logic may be applied to countries such as El Salvador and The Central African Republic, where the decision to legalize Bitcoin as legal tender may be regarded as an act of norm promotion. Lastly, everyday users of cryptocurrency also play a pivotal role in the crypto network. Cryptocurrency is a decentralized currency that is being used all over the world, where the act of transacting with crypto contributes to the change process. Thus, cryptonative companies, states, and consumers act as carriers of ideas (Hedmo et al., 2005) and may be classified as norm promoters (Sjöström, 2010).

Our findings indicate that the act of transacting with cryptocurrency, has not yet reached the tipping point (Finnemore & Sikkink, 1998; Sjöström, 2010). A sufficient number of so-called norm promoters have not thus far adopted crypto as a new standardized behavior. However, this framework and this type of reasoning attempts to explain norms from a universal perspective. And as stated by Finnemore and Sikkink (1998), “Norms may be regional, for example, but not global” (p. 892). This means that norms are not identical and ubiquitous, but rather local and unique. Our data suggest that we live in a more globalized and connected world, but that norms are adopted by local communities. We call these micro-norms, where a phenomenon is present and has been adopted by a distinct group of people, companies and/or institutions. Therefore, in these contexts, cryptocurrency has as a matter of fact reached a tipping point (Finnemore & Sikkink, 1998; Sjöström, 2010). Through the internet, cryptocurrency enables these communities to use the technology for cross-border payments and everyday life. As the idea of crypto travels from one place to another, these micro-norms translate (Czarniawska & Sevón, 1996, 2005) into different actions and practices.

Therefore, norms can achieve a more or less “normal” status depending on the context (Sjöström, 2010). In the case of cryptocurrency, it is evident that norms around transacting with crypto have entered a taken-for-granted status among cryptonative companies. They use it on a daily basis without any internal debates about it being right or wrong. Henceforth, in criticism of the norm life cycle (Finnemore & Sikkink, 1998), we argue that norms evolve more dynamically than explained in the linear emergence-cascade-internalization process. Theoretically, in specific contexts, this means that it is possible to skip a stage in the process and this seems to be the case in the crypto-sphere. Transacting with crypto can be said to have developed into an internalized norm (Finnemore & Sikkink, 1998) in these communities, i.e. the third stage of the norm life cycle. They evolve locally, like subcultures in society, but altogether contribute to the process of normalization in a more widespread context. Importantly, though, this does not mean that the second stage of norm cascade is neglected completely; it is as a matter of fact taking place concurrently as well.

## **Stage 2: Norm cascades**

At the heart of the norm cascade stage is an attempt to convince more actors through an act of socialization to endorse the new principles (Finnemore & Sikkink, 1998; Sjöström, 2010)

suggested by Nakamoto. To a certain extent, this is illustrated by the cryptonative companies who openly and explicitly promote the functional benefits of using cryptocurrency, such as instant settlement times and cross-border payments. However, what is the underlying reason for using cryptocurrency? Stage 2 involves a more profound reasoning; where norm promoters may worship a certain behavior in order to allude to the very identity of potential norm followers (Finnemore & Sikkink, 1998). This is where cryptonative companies refer to the decentralized benefits of using crypto and what it actually means. It is apparent that financial restrictions and corruption are problematic and present in various regions worldwide. Here, crypto solves a monumental problem for civilians and companies that wish to have control over their own money, and the ability to transact internationally. Cryptocurrency enables these actors to live off crypto regardless of embargos or corrupt third parties, which means that there is an element of freedom in place.

Moreover, actors that change their attitude in this phase often do so because they are self-motivated to do so, or because they long for legitimacy (Finnemore & Sikkink, 1998; Sjöström, 2010). What is being witnessed in the crypto-sphere is a snowball effect where actors adopt a behavior centered around digital currencies because they believe that crypto is the future. This is further demonstrated by ZCoin, who argues that adopting crypto helps the company in question to be viewed as modern and innovative. More actors, as seen, are utilizing the features that cryptocurrency offers and if companies wish to attain a modernized reputation; adopting crypto seems like a fashionable thing to do. Micro-norms around cryptocurrency evolve within crypto-communities where norm promoters act as carriers of ideas (Hedmo et al., 2005) in micro-groups. As cryptocurrency is a broad phenomenon with numerous capabilities, these micro-groups promote the legitimacy of cryptocurrency explicitly and implicitly on a macro scale. The sum of these micro-groups across the world helps to drive pressure and changes in the norms that our outside of their “micro-norms”, this in turn moves the topic of cryptocurrency from a local discussion to a global one, where governments start to embrace it as they seek legitimacy, conformity and esteem (Finnemore & Sikkink, 1998; Sunstein, 1996).

An interesting question follows the previous discussion: do not state agencies also wish to stay modern and innovative? Our argument is that they certainly do, but the definition of what is modern and innovative varies substantially from country to country and therefore, results in different rules and norms. Governments have the mandate to either support, ignore, ban or even adopt cryptocurrency as legal tender themselves. Cryptonative organizations, on this occasion, have pressurized state actors to acknowledge the legitimacy of cryptocurrency by questioning the regulation of crypto and how it should be recorded. In response, the actions taken by governments can be viewed as an indication of their preferred self-image. If they want to stick to “the old ways”, they simply ban crypto transactions altogether. If they wish to be perceived as modern and progressive, they support cryptocurrency by providing distinct information on tax and auditing rules.

An important point needs to be further addressed here, though. By providing clear rules and regulation around crypto, governments can be argued to act in favor of cryptocurrency acceptance. Therefore, countries do not necessarily need to adopt cryptocurrency as legal tender themselves in order to support crypto adoption, but simply provide a regulatory framework for transacting with cryptocurrency. Europe was given as a

prime example of this where countries have enforced more transparent rules on how to record crypto transactions. Consequently, more companies are incentivized to operate with cryptocurrency because they have a regulatory framework to refer to. One of the Co-founders of ZCoin was as matter of fact involved in the lawmaking process in Luxembourg, which implies that regulators are influenced by the expertise among cryptonative organizations. This means that countries that enforce more transparent laws around crypto are willing to support a more progressive behavior regarding financial transactions; namely around cryptocurrency. However, this does not mean that cryptocurrency will be adopted in these countries first.

While providing transparent rules and regulations around cryptocurrency may encourage more actors to transact with crypto, it is more likely that crypto will be adopted in countries where the demand for using a decentralized currency is greater. The findings showcase that developing countries, especially those with sanctions against them such as Cuba are more incentivized to adopt cryptocurrency. The same is true for countries that lack a functional or trustworthy financial system. Here, e-merchants play a pivotal role because they provide goods and services to the market which means that people can actually live off crypto. Norm promoters such as cryptonative organizations can therefore be understood as change agents (Sjöström, 2010) who actively influence the environment and its actors. Naturally, if more stakeholders use crypto on a daily basis; this fosters a certain behavior. Altogether, this underscores that norms around cryptocurrency are more probable to change in fragile environments (Sjöström, 2010) where crypto is argued to act as a viable alternative currency. In these contexts, it is likely that countries such as El Salvador and The Central African Republic have adopted cryptocurrency as legal tender because they wish to attain a social position of being perceived as progressive and liberating (Finnemore & Sikkink, 1998; Sjöström, 2010).

The norm life cycle model emphasizes that the norm cascade moves a norm from primarily being local to global and where governments start giving legitimacy to the norm (Finnemore & Sikkink, 1998). The foundation of cryptocurrency is that it is a decentralized currency which many countries are against as our data shows that companies have a hard time establishing business due to regulation. Nevertheless, since cryptocurrency is a global phenomenon, a company can start their operations in a country that allows it and still serve other clients regardless of government support. We can therefore show that an idea can travel from country to country, business to business, consumer to consumer and still be a global phenomenon without the legitimization of governments.

### **Stage 3: Internalization**

The last step in the norm life cycle involves internalization which means that a certain behavior has reached a taken-for-granted status (Finnemore & Sikkink, 1998). This implies a behavior that is normalized to the extent that people do not even question the very foundation of a norm anymore. Based on our analysis, crypto per se as a universal norm has not yet reached this stage. Instead, micro-norms evolve among distinct groups of people and later turn into internalized norms (Finnemore & Sikkink, 1998; Sjöström, 2010) within cryptonative companies. In these settings, transacting with cryptocurrency is regarded as a common practice, rather than an exception. They use it in their daily operations and are

essentially synonymous with cryptocurrency. However, one could argue that the act of converting cryptocurrency to fiat money to pay for expenses and salaries is an indication of crypto's non-normal status even in these companies. After all, only one cryptonative company (i.e. Coin Gift) was found to pay out the majority of its salaries in cryptocurrency. Our understanding of this is that cryptocurrency does not necessarily replace fiat money altogether, but may function as an alternative currency in contexts where it is more appropriate. In other words, fiat money and cryptocurrency are not mutually exclusive; but may actually complement each other. A parallel financial system is thus in place where numerous currencies co-exists. Micro-groups are affected by macro factors outside of their local settings which means that they currently have to adapt in certain ways even if they are cryptonative users, which is true in this case as fiat money is still the conventional currency around the world.

In the crypto-sphere, cryptonative companies are argued to act as norm promoters (Sjöström, 2010) where the sum of their actions contributes to the process of crypto normalization. Collective norm promoters (i.e. micro-groups) pressurize governments and other stakeholders to acknowledge and embrace crypto norms. The recent adoption of Bitcoin as legal tender in El Salvador and The Central African Republic is an indication of successful persuasion, where crypto is gaining legitimacy among bureaucratic agencies. As Sjöström (2010) argues, norms can achieve a taken-for-granted status in various contexts and it is reasonable to believe that crypto is more likely to gain public acceptance in settings where even governments declare crypto as a valid payment option.

A transformational process is therefore unfolding where digital currencies are gaining ground on a micro, meso, and macro level. As mentioned by the respondent who paid his gas bills in Bitcoin, this indicates that transacting with cryptocurrency is to a certain extent normalized in El Salvador and may be argued to have developed into an internalized norm (Finnemore & Sikkink, 1998; Sjöström, 2010). However, rather than simply claiming that a certain behavior is *normalized* or not, it is perhaps more meaningful to explain norms as an ongoing process of *normalization*. Using cryptocurrency is more acceptable in certain environments than others, but it does not mean it will always be that way. In *potentia*, crypto can become a global currency that is used everywhere, but it can also lose its ground as what is fashionable is always changing (Czarniawska & Joerges, 1996; Czarniawska & Sevón, 2005; Røvik, 1996). We argue that norms around cryptocurrency have evolved dynamically and locally. Cryptocurrency is being utilized among distinct subgroups which has incentivized institutional agencies to consider crypto as a legitimate phenomenon. During this process, the idea of cryptocurrency is being translated by individuals, cryptonative companies, financial institutions and governments; which has turned into different objects and actions (Czarniawska & Sevón, 2005).

## CONCLUSION

Stability and change is always in the making (Czarniawska & Sevón, 1996) and it is evident that the traditional financial system based on fiat money is challenged by a new era of digital currencies. When the whitepaper was released in 2008 by Nakamoto, the author problematized the issue with third parties and presented Bitcoin as a viable solution. Norms

about a new technology and an alternative currency emerged where Nakamoto can in analytical terms be considered as a norm entrepreneur. In terms of *how cryptocurrency is introduced and used by organizational actors*, we found that people are introduced to cryptocurrency as ideas travel (and materialize) transnationally. The whitepaper, understood as a quasi-object, incentivized people to invest in crypto, work with crypto, and establish cryptonative businesses. The whitepaper, understood as a quasi-object, incentivized people to invest in crypto, work with crypto, and establish cryptonative businesses. Accordingly, cryptonative companies use crypto differently due to the polysemic meaning of cryptocurrency and the process of translation. Exchanges primarily use their websites to convert fiat money to cryptocurrencies, fintech companies offer payment solutions, and e-merchants deliver goods and services to the market. The idea of crypto is therefore perceived and enacted differently, which underscores why companies become heterogeneous rather than identical (Czarniawska & Sevón, 1996).

As people started to talk, use, and invest in Bitcoin - this triggered a massive interest among various stakeholders worldwide. This was also how the respondents in our data heard about cryptocurrencies, where the increase in market capitalization of crypto was a determining factor. Henceforth, the claims put forward by Bruijl (2017) and Greene (2016) in that users first and foremost adopt cryptocurrencies because of (1) interest in technology and (2) possible investment is supported in this study. Accordingly, a period of sensemaking (Boxenbaum & Pedersen, 2009) followed since cryptocurrency was initially difficult to understand. Therefore, perceived usefulness and perceived ease of use (Davis, 1989; Nadeem et al., 2021) are viewed as important cryptocurrency adoption factors as our findings indicate that the market is in need of simplicity and more common knowledge. To mitigate this, cryptonative organizations try to remove barriers in the market by providing innovative solutions, and widespread knowledge. They act as carriers of ideas (Hedmo et al., 2005) and may be understood as norm promoters (Sjöström, 2010) because they adhere to the principles proposed by Nakamoto (2008), but also since they encourage other actors to change their behavior. Based on our findings, an increased number of stakeholders worldwide are incentivized to adapt to cryptocurrency and it appears that transacting with crypto is becoming a fashionable practice.

Our data suggests that norms around cryptocurrencies are currently “towards the tipping point” in the norm life cycle (Finnemore & Sikkink, 1998; Sjöström, 2010), but has developed into a taken-for-granted phenomenon in specific contexts. Through words and deeds, an increased number of stakeholders; including governments, companies, institutions, and users are showing an optimistic behavior centered around a decentralized currency. Both because they are persuaded by cryptonative companies, but also because they are self-motivated to do so. Countries that are willing to support cryptocurrency transactions by providing transparent crypto regulations are argued to support crypto adoption. The demand for using crypto is shown to be higher in countries that have an untrustworthy financial system in place, and those countries that are subject to embargos. Based on our findings, it is suggestive to believe that crypto has developed into an internalized norm in El Salvador. Alcorn et al.’ (2013) claim that governmental support is critical for a currency to be recognized as legitimate is thus partially supported in our study, since progressive legislation actions taken by governments and the adoption of crypto as legal tender are argued to have a

positive effect on the crypto evolution. However, due to the decentralized nature of cryptocurrency, it is plausible that crypto will evolve into a legitimization medium of exchange regardless of government support, albeit it is hard to believe given that state agencies still have the mandate to ban crypto, like China has.

This paper contributes to the field of new institutionalism and organization studies by analyzing cryptocurrency from a Scandinavian institutionalism perspective (Czarniawska & Sevón, 1996). Our study displays how ideas about cryptocurrency travel and change by attending to the theoretical concepts of ‘travel of ideas’ and the ‘translation process’ (Czarniawska & Joerges, 1996; Czarniawska & Sevón, 1996, 2005; Latour, 1986). Additionally, by showcasing how norms about novel technologies such as cryptocurrency evolve, our study also contributes to the literature of norm research. Given the lack of studies vis-à-vis norm promoters (Sjöström, 2010), our paper brings nuance to the field by demonstrating how cryptonative companies act as norm promoters for cryptocurrency. Academically, universities and other research scholars interested in understanding Bitcoin and cryptocurrencies from a social standpoint can utilize our findings for this purpose; something that has been largely neglected in previous studies (Nadeem et al., 2021; Redhwan et al., 2019). Practically, our findings showcase that cryptocurrency is suitable for companies that wish to transact internationally fast and with negligible fees. Companies can also add cryptocurrency as an alternative payment option, which likely results in an additional revenue source that does not cannibalize the existing operations. By doing this, it is indicated that companies are perceived as modern and innovative. Given the extensive analysis of how cryptonative companies utilize crypto on a daily basis, the implication of this study is that managers have a research paper to refer to if they wish to implement cryptocurrencies in their organizations.

In terms of further research, it would be compelling to investigate the actual implementation process of adopting crypto in an organization as it unfolds. Examining one singular organization, as opposed to several ones, might also generate novel insights. In addition, it would be interesting to investigate the translation process of cryptocurrency in El Salvador, as they have adopted it as official currency. By doing this, research scholars could generate fruitful knowledge about how this process develops in a setting where organizations and state actors are obligated to accept cryptocurrency as a medium of exchange.

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