BLOCKCHAIN, BEYOND CRYPTOCURRENCIES

A QUALITATIVE STUDY ON HOW NORMS AND CULTURE INFLUENCE THE ADOPTION OF BLOCKCHAIN TECHNOLOGY

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Abstract

Since the emergence of Bitcoin and other cryptocurrencies in recent years, the blockchain technology that underpins digital currencies has largely gone unrecognized. Labeled as a disruptive technology, blockchain technology offers a variety of use cases, and its potential applications in industry operations have sparked some public interest. However, blockchain adoption has yet to make a significant breakthrough. The reasons for this are a question that researchers are trying to figure out. Furthermore, various dimensions of blockchain adoption ultimately determine whether or not enterprises choose to explore its use cases. The specific dimension that this thesis has investigated is norms and culture. Through 9 in-depth interviews, the empirical material gathered has provided an insight into organizations and their reasoning behind questions related to knowledge, resistance to change, and cultural resistance. Using the PIMT framework lens, the data have been collected on the foundation of a theoretical framework backed up by literature. Well-known management and organizational principles are highly relevant and essential to the topic following an analysis of the data as themes suggest that blockchain adoption is a complex organizational undertaking. By contributing with in-depth insights from various industries and sectors, this thesis aims to facilitate and deepen the understanding of the influence of norms and culture on blockchain adoption.

Keywords

Blockchain Technology, Adoption, Norms, Culture

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Concepts/Abbreviations

Table 1: Definitions

Concepts	Definition
Blockchain Technology	Blockchain is a distributed, unchangeable database that facilitates the process of recording transactions and managing assets in organizational networks. (IBM, 2022)
Distributed Ledger	Refers to the technological architecture and protocols that enable simultaneous access, validation, and record updating across a network that spans numerous entities or places in an immutable form. (Frankenfield, 2021)
Cryptocurrency	A cryptocurrency is a digital or virtual currency that is protected by cryptography, making counterfeiting and double-spending practically impossible. Many cryptocurrencies use blockchain technology to create decentralized networks. (Frankenfield, 2022)
Bitcoin	The world's most well-known cryptocurrency, its notoriety has fostered the development of several other new ones. (Frankenfield, 2022)
Path dependence	Explains why a product or practice is still in use based on past preferences or usage. (Banton, 2021)

Abbreviations	Definition
SME	Small and medium-sized enterprises
BCT	Blockchain technology
PIMT	Process, institutional, markets, and technology

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1. Introduction

1.1. Background

Blockchain has been used in a wide range of different industries where public services, logistics, and manufacturing (within the food industry, among others), but the most rapid growth has happened within the financial services sector and the rise of cryptocurrencies (Hughes et al., 2019). Blockchain has been brought into the light with the rise of Bitcoin, which is the most successful blockchain application to date (Hughes et al., 2019). A few other applications of BCT are, for instance, e-voting, smart grid, smart contracts, healthcare, banking, and even vehicular and aerial networks (Uddin et al., 2021). The term Blockchain has been used for a variety of initiatives (Hughes et al., 2019). As a result, the concept of Blockchain appears vague, as it is difficult to comprehend that the same technology can power systems with vastly diverse demands and performance and security characteristics (Uddin et al., 2021).

1.2. Problem Area and Research Gap

The arrival of BCT has caused firms to realize that operations, production, and sales may all be brought closer together, redefining operations management due to increased flexibility (Di Vaioa & Varriale, 2020). While the numerous advantages show BCT as great all-around technology, researchers have identified technical and non-technical issues. Security, integration, and scalability are among the technological challenges, while privacy, professional presentation, and government regulations are non-technical issues (Al-Jaroodi & Mohammed, 2019). Moreover, previous research on digital transformation states that it can be seen as continuous change initiated and modified by episodic bursts (Hanelt et al., 2021). In the case of blockchain, research claims that there are barriers to adopting the technology (Shoiab, 2020). Researchers suggest future work to focus on the barriers and obstacles that hinder the successful adoption of BCT (Shoiab, 2020). As most studies have focused on blockchain technology use in single industries, general findings connected to non-technological factors like policies, cultural aspects, and social influence have been lacking (Alazab et al., 2021). In an attempt to map out the different factors influencing organizations and their decision to implement

the technology, a framework called the integrated process, institutional, market, technology framework for blockchain adoption, or the abbreviation PIMT, was established by researchers (Janssen et al., 2019).

Previous research on the organizational factors of blockchain technology encourages future research to focus on the relationship between top management support and new IT innovation and how the characteristics of developed countries influence this relationship (Clohessy & Acton, 2019). Moreover, as researchers have proposed future studies to focus on non-technological aspects, the institutional factor norms, and culture in the PIMT framework appear to be an interesting topic to investigate. The PIMT framework is created as an overview of BCT adoption within organizations based on published literature about how organizations work with BCT (Janssen et al., 2019). While this research serves as an excellent overview of the different adoption factors, it lacks depth. The framework creators suggest future research to explore the relationships stated and expand the framework further (Janssen et al., 2019).

Therefore, it makes sense to research norms and culture as the influencing factors: cultural resistance, resistance to change, and lack of knowledge Janssen et al. (2019) all relate to Clohessy & Acton (2019) suggestion that there is a lack of knowledge about how organizational relationships and cultural characteristics affect BCT adoption. Furthermore, this thesis aims to investigate deeper how norms and culture influence BCT adoption and their relative impact in different organizational contexts. As they are now defined with little ground and explanation, the expected research contribution of this work is to limit the research gap on the influence that norms and culture have on BCT adoption.

1.3. Purpose and Research Question

This thesis aims to analyze the norms and cultural factors of BCT adoption. Through analyzing the norms and cultural dimensions, the study aims to deepen the knowledge by investigating the scope of their influence and how organizational reasoning relates to the topic. Hence, the research question of this study is:

- How do organizational norms and culture influence the adoption of blockchain technologies?

The PIMT framework's identified challenges are, according to Janssen et al. (2019); cultural resistance, resistance to change, and lack of understanding of BCT, will serve as the foundation on which the study will focus on. By investigating the challenges, the research aims to cover the essential aspects of norms and culture and test them empirically.

1.4. Scope

This thesis explores empirically if and how the adoption of blockchain is affected by norms and cultures in Swedish organizations. By producing this thesis paper with an empirical perspective based on the theoretical PIMT framework and asking the participants for clarifications on aspects that appear interesting or contradictory, we argue that we can dig deeper into if and how cultures and norms affect the adoption of BCT. Moreover, our study is limited to the Swedish market even though some participating organizations operate globally. The BCT adoption in this thesis is studied from the perspective of norms and cultures, and the empirical research has only involved Swedish organizations.

2. Literature & Theory

2.1. Literature Review

2.1.1. Blockchain Technology

The term blockchain technology was initially applied to the design that underpins the operation of the digital currency Bitcoin (Ammous, 2019). Bitcoin, founded by Satoshi Nakamoto in 2008, was created as a peer-to-peer electronic cash system that allowed online payments to be sent directly between parties without the need for centralized financial intermediaries (Morkunas et al., 2019). The technology is built on what is called a *distributed ledger*, also known as a blockchain, which is a decentralized digital database of transactions that is maintained and updated by a network of computers that verify transactions before they are approved and added to the *distributed ledger* (Morkunas et al., 2019). At its most fundamental level, a blockchain is a decentralized database, similar to an information systems database, that is updated in real-time and distributed among its user base for verified record-keeping (Morkunas et al., 2019). According to research on BCT, potential blockchain applications fall into three categories: digital payments, contracts, and database and record management (Ammous, 2019). Moreover, the applications of BCT have the potential to create completely new businesses while making established organizations reconsider their current operational routines (Morkunas et al., 2019). Organizations with business models based on the assumption of operating as an intermediary between two transaction parties, e.g., banks, may need to evaluate whether and how BCT will impact their value propositions, competition, and operations (Morkunas et al., 2019).

2.1.2. Benefits and Challenges

Within blockchain adoption, its benefits and challenges are frequently discussed in studies (Uddin et al., 2021), (Al-Jaroodi & Mohammed, 2019), (Ghode et al., 2020). Summarized, benefits are linked to facilitating operations to streamline processes, leading to enhanced security and data sharing, better efficiency, and cost reduction to ultimately gain a competitive advantage (Al-Jaroodi & Mohammed, 2019). As BCT has different potential applications, the benefits are naturally different depending on the setting in which it is being used. For the supply chain, decreasing information flow

distortion is essential, and technology has proven that dishonesty, fraud, and tampering are all issues that can be avoided (Ghode et al., 2020). These supply chain management issues can be reduced significantly through a supply chain approach in which items flow visibly and transparent (Ghode et al., 2020).

While BCT adoption has clear benefits in several aspects, there are also question marks and aspects of the technology subject to several challenges. One such challenge is security (Al-Jaroodi & Mohammed, 2019). Since blockchain applications are connected and accessible over the internet, they are vulnerable to various *cyber-attacks,* including *data theft*, *espionage,* and *denial-of-service* (DoS) attacks, which can leave blockchain services unavailable (Al-Jaroodi & Mohammed, 2019). Another technical related challenge that BCT faces is integration (Al-Jaroodi & Mohammed, 2019). Since solutions are rarely deployed as stand-alone services; instead, they are frequently connected with various distributed applications used both within and outside of businesses (Al-Jaroodi & Mohammed, 2019). While integrating the technology within single organizations is challenging, scaling it becomes even more difficult since the size and number of entities involved and the transactions completed are rapidly expanding in many of the popular blockchains (Al-Jaroodi & Mohammed, 2019).

Moreover, some challenges are non-technical. Privacy is one such challenge, as blockchains can be public, private, or consortium (Al-Jaroodi & Mohammed, 2019). The privacy issue is diverse due to the differences in the blockchains' characteristics (Al-Jaroodi & Mohammed, 2019). For example, in a public blockchain, ensuring the anonymity of any participating industrial enterprise when transacting in such a blockchain can be difficult because all participants can observe what is going on (Al-Jaroodi & Mohammed, 2019). Moreover, the characteristics of a private blockchain may prevent privacy concerns, although a private blockchain can provide a higher level of privacy, it is often regarded as an insecure environment because it is solely controlled by one party (Al-Jaroodi & Mohammed, 2019).

Furthermore, the mix of the two consortiums has problems, as privacy cannot be entirely protected because certain participants have access to all transactions (Al-Jaroodi & Mohammed, 2019). Another non-technical challenge with BCT is government regulations since BCT can give technical proofs of ownership, consensus, and

responsibility, these proofs must be backed up by legal evidence (Al-Jaroodi & Mohammed, 2019). It can, for example, create problems in the use of BCT contracts as the absence of an authenticated contract becomes a big problem as the legal system may not accept the smart contract as a binding agreement (Al-Jaroodi & Mohammed, 2019). Lastly, professional preparation is a challenge that hinders the diffusion of BCT, as it requires qualified individuals in the industry to develop, deploy, and use them (Al-Jaroodi & Mohammed, 2019). Although many of the underlying technology used to develop blockchain are familiar, such as *transaction-based systems*, *ledgers*, *audit trails*, *digital signatures*, and *security models*, the *novel integration* and utilization methods are not. It creates the need for knowledgeable teams in various areas to develop and adopt the technology (Al-Jaroodi & Mohammed, 2019).

2.1.3. Blockchain Adoption

Since its inception as a Bitcoin enabler, BCT has been labeled a disruptive technology (Walsh et al, 2021). It has been described that disruptive innovation has three main components; (1) That the technology, for many industries, the rate of technological advancement exceeds consumer demand for high-performance technologies, (2) the technology is inferior to the established products when introduced and (3) Existing customers and established profit models restrict the investments of established companies in innovations (Walsh et al., 2021).

Furthermore, for any potentially disruptive technology to be widely accepted by incumbents, it must perform on par with existing technology (Walsh et al., 2021). While existing business models limit established enterprises' investment in new inventions, research findings indicate that this is not the case with Blockchain (Walsh et al., 2021). One possible reason is because of the potential benefits of Blockchain, such as lower prices and increased transparency, presented in Walsh et al., (2021). Hence the specific characteristics of BCT and its distinctions from the generic notion of disruptive technology, some studies have solely focused on BCT and the factors that influence its adoption in organizations. The conversation surrounding BCT adoption is spread out in different topics and areas. Summarized in the PIMT framework, the factors influencing the adoption can be categorized into three separate dimensions: *institutional factors*, ma*rket factors,* and *technical factors* (Janssen et al., 2019). BCT adoption's institutional

factors are relevant for management and organization studies as it sheds light on dimensions such as norms and culture, regulations and legislation, and governance (Janssen et al., 2019). Research streams within institutional factors are separated into both the managerial aspect and the organization. In an attempt to understand managers' resistance to blockchain systems, it was concluded that environmental support decreased managers' resistance and that a lack of knowledge is an issue that hinders organizations from adopting blockchain systems (Walsh et al., 2021). Moreover, other research on organizational factors concluded that organizational size, readiness, and top management support all affect blockchain adoption (Clohessy & Acton, 2019).

2.2. Theoretical Framework

2.2.1. PIMT framework

The PIMT (process, institutional, markets, and technology) framework provides an overview of the factors and their relationships when adopting BCT (Janssen et al., 2019). Illustrated in figure 3.1, the PIMT framework covers a broad spectrum of change processes. When evaluating blockchain adoption, this is the first comprehensive conceptual framework that provides an overview of aspects and their relationships (Janssen et al., 2019). It emphasizes the need to understand the institutional and organizational elements that drive the adoption of blockchain applications and how blockchain technology may alter or even disrupt traditional market and structure frameworks (Janssen et al., 2019). The PIMT-framework highlights the need to understand the interplay of factors and materiality during the transformation process, which impacts blockchain adoption (Janssen et al., 2019). However, while the framework is conceptual and relatively broad, for organizational adoption, a far more holistic view is required (Janssen et al., 2019). Furthermore, most existing blockchain research has concentrated on the finance industry, limiting the applicability of findings to other industries (Janssen et al., 2019). In addition, the PIMT-framework is a theoretical framework based on literature studies and has not been studied empirically (Janssen et al., 2019); therefore, there are incentives to reach a deeper understanding of how the dimensions are interrelated.

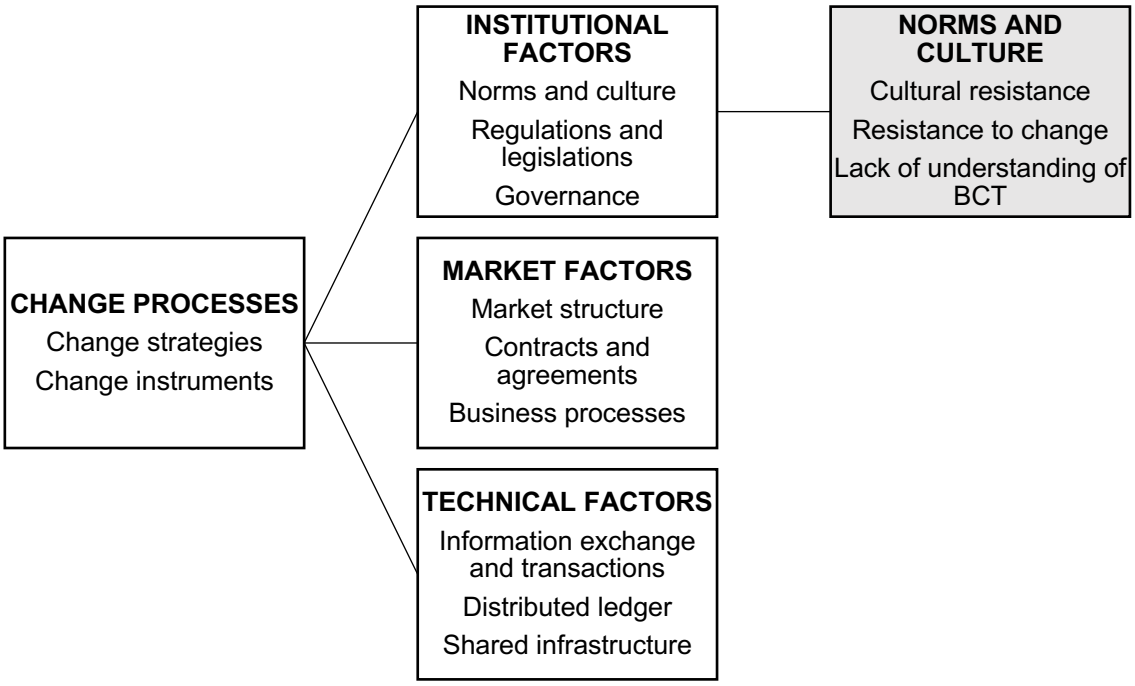


Figure 2.1: *The PIMT framework with the norms and culture challenges (Janssen et al., 2019), edited by Diem & Tjernberg, 2022*

The PIMT-framework states that future research should put the suggested paradigm to the test in various settings (Janssen et al., 2019). The current study highlighted elements that influence blockchain adoption; nevertheless, more research is needed to find answers to these problems. From a management study perspective, research within the institutional field of BCT adoption is interesting as norms and culture naturally vary across industries and conducting a study on how it looks across different sectors is therefore intriguing.

2.2.1.1. Norms and Culture

Norms and culture, identified as a factor for BCT adoption, have been broken down into three subcategories; *cultural resistance*, *resistance to change*, and *lack of understanding of blockchain technology* which are stated in the PIMT framework (Janssen et al., 2019). Furthermore, figuring out how these challenges behave in different contexts is necessary to comprehend the scope of norms and cultures' impact on organizational adoption of BCT.

2.2.1.1.1. Cultural Resistance

For BCT to be broadly accepted, it must overcome the cultural opposition of market incumbents (Janssen et al., 2019). As described by (Buehler et al., 2015), cultural resistance is the internal resistance to any step toward a potentially disruptive solution that established businesses may fight to maintain the status quo. Cultural resistance could especially appear if change means decreased profits, product cannibalization, or job losses (Buehler et al., 2015). As a result, people will have to become accustomed to the notion that electronic transactions are safe, secure, and complete with non-tangible trusted third parties in order for BCT to reach its full potential (Crosby et al., 2016). A conceptual blockchain resistance model was introduced in research, where resistance at all levels is included (Walsh et al., 2021). In the stream of norms and culture, the organizational support for change is highly relevant as it discusses the level of support within an organization concerning BCT (Walsh et al., 2021). Furthermore, concluding remarks connected to organizational support were that it has a negative effect on manager resistance and a positive effect on self-efficacy (Walsh et al., 2021). However, the causes of cultural resistance within organizations are yet to be explored by research, hence, making a study on its origins and characteristics interesting for BCT management studies (Janssen et al., 2019).

2.2.1.1.2. Resistance to Change

General concepts on resistance to change can be explained by *inertia theory*, which confirms that initiating change and reforming organizations varies depending on the size and age of the organization (Kelly & Amburgey, 1991). Furthermore, structural inertia would naturally influence the adoption of BCT since the likelihood of fundamental feature changes decreases with age, as does size, which is linked to resistance to change (Kelly & Amburgey, 1991). In the case of blockchain, research has emphasized the influence of organizational size on blockchain adoption. However, contradicting the thought of organizational inertia, large companies are more likely to use blockchain and conduct more blockchain research and development (Clohessy & Acton, 2019). Nevertheless, although they are more likely to adopt BCT, they will have to invest in and change their platform to make it block-chain-based, all while continuing to deliver services and grow their customer base (Janssen et al., 2019).

On the other hand, completely new actors enter the field with a fresh attitude, and as entrants, they may pose a challenge to established companies (Janssen et al., 2019). The established companies gain from their existing consumer base, yet *path dependencies* may cause progress to be slowed (Janssen et al., 2019). New entrants to the market, on the other hand, do not have these *path dependencies* and must instead build a new client base (Janssen et al., 2019). While these trends can be seen in BCT adoption, there is a lack of in-depth studies investigating *path dependencies* and the resistance to change connected to organizational reasoning, opening for further research to be conducted (Janssen et al., 2019).

2.2.1.1.3. Lack of Understanding of Blockchain Technology

Multiple sources state that there is a lack of knowledge among businesses, consumers, and government agencies about the potential use cases for Blockchain, how it works, and what the technology can do (Janssen et al., 2019). In addition, managers' perceptions of benefits substantially impact their reluctance to change (Walsh et al., 2021). This shows that a lack of blockchain understanding is a problem for businesses, which will be forced to recruit new talent and up-skill existing staff in order for them to understand the benefits (Walsh et al., 2021). While research has figured out that knowledge of BCT influences adoption decisions, there are limited studies discussing the causes for this lack of knowledge (Janssen et al., 2019). To fully comprehend blockchain adoption in terms of corporate norms and culture, it is necessary to investigate why Blockchain is not discussed more widely and why it has not piqued the interest of some organizations.

2.2.2. Theory Discussion

The PIMT framework is suitable for the research question as it provides a great starting point for studying BCT adoption dimensions further. However, limitations include a lack of explanations for the stated dimensions. The framework has simply cited factors based on literature and does not provide empirical evidence for their claims. This constitutes a research gap since the framework has yet to be tested and studied empirically. Moreover, the broad framework is suitable for generalizing the challenges that BCT adoption includes.

Furthermore, in this specific scope, the definition of norms and cultures is, in general, within management studies, hard to define since it is a complex phenomenon (Alvesson, 2013). Therefore, it becomes problematic when pinpointing the challenges connected to norms and culture and if the ones that the PIMT framework mentions are the only ones. There could well be other norms and cultural challenges that are not brought up in the relevant framework for norms and culture. There are also contradictory thoughts about whether norms and culture can even be brought up in the context of formulas and models but are widely used within management studies (Alvesson, 2013).

3. Method

3.1. Research Design

This research focuses on how organizational norms and cultures influence the adoption of BCT with a focus on Swedish companies. A deductive approach has been used to investigate the research question where a theoretical framework has been identified, which is to be tested using empirical data (Saunders et al., 2019). This study has been designed and conducted as a qualitative study with semi-structured interviews of a homogenous group sampled from specific inclusion criteria to gain an empirical, in-depth understanding of a theoretical framework (Saunders et al., 2019). The level of analysis focuses on the individual (Saunders et al., 2019). Interviews are conducted individually, focusing on the participants' thoughts, knowledge, and experiences. The analysis is also focused on the individual leader's perception, knowledge, and navigation of several institutional logics, in this case, specified to norms and cultures and the connection to the BCT adoption within their organization. The individual focus is also of interest in the analysis since it will explore possible seminaries and contradictions between leaders and the specific framework analyzed. Furthermore, the research is designed with the validation criteria from Saunders et al. (2019) as a base: *Dependability*, *Credibility*, *Transferability*, and *Authenticity criteria* (Saunders et al., 2019).

3.2. Choice of Sample

Within this study, 9 interviews were conducted with organization representatives from the retail sector, municipalities, and consultancy firms. All potential participants within the target population were contacted via e-mail, phone, or Linked In. This type of sampling is called non-probability sampling, which is suitable for qualitative studies conducting semi-structured interviews (Saunders et al., 2019). The sample size is suitable for collecting qualitative data with semi-structured interviewing considering a homogenous population since interviews have been conducted until data saturation has been reached. Purposive sampling with homogenous sampling has been done, focusing

on individuals holding a leading role connected to the work with BCT, allowing an in-depth exploration (Saunders et al., 2019). The sample was based on the ability to collect data regarding how norms and cultures could affect the BCT adoption, and inclusion criteria for this thesis are presented under 3.2.1. *Inclusion Criteria for Participants.* The participants are presented under Table 3.1 *Overview of Interview Sample* which includes the following information about the participants: *Gender, Position, Industry, Organization Size*, and an *Anonymity Code*. Organization size is divided into *small and medium-sized enterprises (SME*) which employees less than 250 people and *large* organizations which employee more than 250 people within the geographics of Sweden (OECD, 2022).

Table 3.1 Overview of Interview Sample

No	Gender	Position	Industry	Organization Size	Anonymity Code
1	Female	Founder/CEO	Consulting	SME	C1-CS
2	Male	Founder/CEO	Consulting	SME	C2-CS
3	Male	Vice President	Consulting	Large	C3-CL
4	Female	Manager	Retail	Large	R1-RL
5	Male	Manager	Retail	Large	R2-RL
6	Male	Head of IT	Retail	SME	R3-RS
7	Male	CIO	Retail	Large	R4-RL
8	Female	Manager	Retail	Large	R5-RM
9	Female	Manager	Municipal	Large	M1-ML

3.2.1. Inclusion Criteria for Participants

The following criteria have been used when evaluating and choosing participants for this thesis. The criteria is that the participants are; (1) *Working, has been working or is researching on working with BCT within their current role*, (2) *Based in Sweden*, (3) *Holder of a leader role*.

3.3. Interview Setting and Transcription

Following a qualitative semi-structured outline of the study, an interview guide was created before conducting interviews and used during one pilot interview held with a manager within a consultancy firm working with blockchain implementations. The pilot interview is not included in the empirical sample. All interviews were held online via Zoom or Microsoft Teams to be able to cover and enable participation from companies geographically widely located in Sweden and create initiatives to participate.

Furthermore, all interviews were held in either Swedish or English and recorded with the participants' agreement.

Interviews were held according to the interview guides (Appendix 1), (Appendix 3) and conducted according to a semi-structured in-depth methodology, starting with an open and brief presentation of the authors, Stockholm School of Economics, and the introduction of this thesis. The introduction and presentation of the authors aim to establish personal contact and create an interest in the topic, which will encourage leaders to participate fully in an interview (Saunders et al., 2019). For the reason of the participants' comfort, two interview guides have been used, one for participants from consulting firms and the other for the municipality and retail organizations. The questions have been similar yet asked differently to comply with the participant's role.

All transcriptions were made with Microsoft Word Software on Stockholm School of Economic's Office 365 Network. Both authors conducted all interviews to ensure secure data collection, and the topic was fully covered as recommended by (Gill et al., 2008), stating that interviews should be recorded and transcribed verbatim to avoid biases. In addition, to support the analysis in the later stages, short discussions were held between the authors directly after the interviews to discuss observations and thoughts/ideas that could help in later stages of the report. (Gill et al., 2008).

3.4. Data Analysis

This thesis study was conducted using a deductive methodology in which theory and empirical data were collected concurrently and mutually informed one another. The empirical data enables the study's scope to be narrowed to the pertinent aspects of institutional logic.

The authors analyzed the empirical data collected in the form of transcripted text and recorded sound from the interviews held with the participants after completing all nine interviews. First, the authors individually analyzed the collected data using Sauders et al.'s (2019) thematic analysis approach, which resulted in several codes that could later be translated into six first-order themes connected to the second-order themes found in

the theoretical framework. The second-order themes were, in turn, a result of one of the overarching themes in the framework.

All presented empirical data except from one interview has been translated from Swedish to English. In the process of translation, the data must be ensured to be processed and presented authentically (Saunders et al., 2019). Furthermore, the empirical data is presented anonymously according to the research ethics of this thesis.

3.5. Research Quality

3.5.1. Research Ethics

This study has been made with research ethics in consideration. By this standard of behaviors has been followed with the rights of the participants in mind. Ethical principles followed in this study are based on Saunders et al. (2019) and therefore the integrity and objectivity of the authors was highly prioritized as well as the ethical principle of respect for others. Therefore, during the data collection process and thereafter the study focuses on the ethical principle of non-maleficence where harm of participants is avoided. To make sure that research ethics were followed, and to ensure the comfortability of the participants, certain other ethical principles where informed of and followed which are; (1) Privacy of those taking part in this study, (2) ensuring confidentiality of data and maintenance of anonymity, (3) informed consent of those taking part (written via the GDPR-consent form and orally before the start of the interview), (4) Voluntary nature of participation and the right to withdraw participation at any point during the thesis work (Saunders et al., 2019).

Furthermore, ethical issues might arise during the data collection process since this thesis work is conducted based on a semi-structed in depth interview methodology and the characteristics of self-expressions and discussions outside take place (Saunders et al., 2019). Therefor As a result of ethical standards, the participants and their organizations have been anonymized. Furthermore, all participant interviews within this study have signed a consent form (GDPR-consent form). All participants were, before the start of the interview, informed about the ethical standards within this study and their rights to; (1) abrupt, pause or leave the interview at any time for no given reason and (2) the right to read quotations before publication of this thesis if wanting to. The

authors made sure beforehand, by asking all participants if they understood their rights before starting any data collection, and thereby gaining informed consent.

3.5.2. Method Criticism

When conducting semi-structured interviews, there is a risk of data quality issues. The lack of standardization in semi-structured interviewees can raise concerns about reliability and dependability (Saunders et al., 2019). There is a credibility risk regarding the translation process since 8 out of 9 interviews were held in Swedish, and the empirics were translated into English. This thesis also has a risk of quality out of the interpretative research characteristics. When conducting interviews in interpretative research, communication is created, transferred between people, and discussed, and therefore interpretation may differ over time as circumstances and constituents change. (Orlikowski, 1991). This is something the authors avoid by offering the participants to read their quotes before publishing this thesis.

Another risk when conducting interviews is the precaution bias based on the reduction of willingness to take part in an interview based on the nature of time consumption (Saunders et al., 2019). To avoid this risk, all interviews have been promised that the interviews held will not extend to 45 minutes. The authors have also maximized their flexibility by offering the potential participants the chance to choose the time of the interview freely.

4. Empirics

4.1. Overview

A thematic analysis has been used to structure the empirical data gathered during the interviews. First-order themes have been identified in the empirical data collected and linked to the second-order themes stated in the PIMT framework (Janssen et al., 2019). The second-order themes in the PIMT framework are established from the broader overarching theme of norms and culture (Janssen et al., 2019). Furthermore, while collecting the empirical data and conducting the interviews, a deductive approach was used while remaining open to inductive explanations beyond the PIMT framework's themes. However, the data gathered would not allow for incorporating any additional dimensions. Instead, the deductive approach allowed us to go further into the implications of the PIMT framework's second-order themes and better understand the reasoning of professionals in the field of BCT.

Summarized in figure 4.1, the structure of the empirical material is shown in relation to the themes stated in the theoretical framework. Furthermore, the focus will be on the first-order themes that have been identified from the empirical data collected from the in-depth interviews conducted.

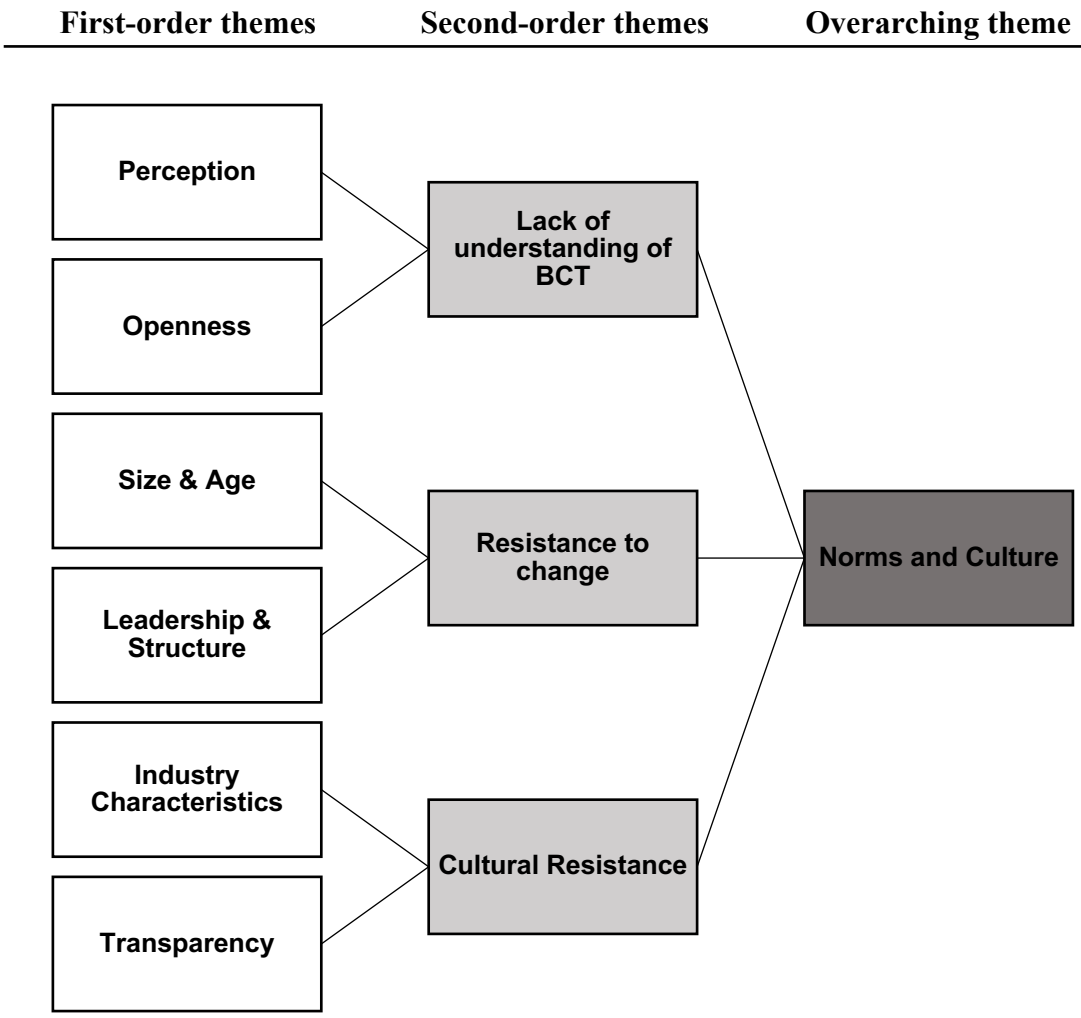


Figure 4.1 *Overview of empirical findings*

4.2. Lack of understanding of BCT

Empirical data on perception and openness frequently reoccurred and could be categorized as first-order themes influencing the lack of understanding of BCT. People have different perspectives on technology, its possibilities and how it might contribute to positive transformation in the organization. Furthermore, their willingness to learn determined whether organizations are eager to investigate BCT adoption.

4.2.1. Perception

Several phenomena were uncovered during interactions with respondents that describe how people perceive BCT in various situations and industries. Depending on the industries and types of organizations, the consultants we spoke with noted different

approaches. In addition, the respondents employed in the retail sector and the municipality representative shared insights gained from internal dialogues.

> "Since it has been so closely associated with crypto and everything it is a bit suspicious, and you have that stamp to wash off. But, I think that the more people will understand and also get practical examples that can show how to use blockchain in different ways, the acceptance will increase. And they will see fantastic opportunities." **– C1-CS**

> "If you try to be the company that only tries to be on the forefront of things, you need to stay ahead of things, you can't just look and say "oh, okay, that's coming, that's good for us to follow up on", you need to be ahead of things." **– R5-RL**

> "We do not have as our main focus that we should drive the development of new technology, but we should all get better at applying the existing ones that are mature, so to speak. I wanted to say it was a while ago that I last looked into it (blockchain), but then my conclusion was that this probably needs to be packaged in a slightly smoother way" **– R2-RL**

According to the consulting perspective on how organizations view BCT, many associates BCT with cryptocurrencies, which is just one of the technology's many applications. Furthermore, when addressing the issue with people within organizations, it became clear that the organization's culture and how operations were defined influenced how new technology and BCT were perceived. Being on top of things is far more crucial for certain firms than others, which determines whether they are interested in learning more about BCT and possibly using it in their operations.

4.2.2. Openness

While discussing BCT knowledge, it became evident that an organization's openness to technology was critical in making decisions. As a result, the consultants were hopeful about organizations' willingness to learn. However, they did point out that the technology may not be appropriate for all types of businesses and that operational effectiveness in use cases is connected to decision makers' openness.

> "There is a desire to know how to understand supply chain management, and the concept of blockchain is something that very many people know very little about. But it is also quite difficult to apply it in many industries." **– C2-CS**

> "I personally think there's a massive need for this conversation to get started within companies … It feels like someone needs to mention it. And then someone needs to realize, oh, maybe we should hire someone who's an expert on this, and who can dig a little deeper into it. So I think the lack of information is a big one." **– R5-RL**

> "We have a way of working that makes you try and dare to fail, that you centrally encourage employees to dare to try, we even have the prize for this year's mistake, as it does nothing to do wrong, as long as you dare to test it's good. So there is no prestige in this, the opposite, it is better to just keep going. I think if you have a more shameful culture, so that when you don't dare to try something because you might get slapped on the fingers, it is clear that then you will not be super creative. But here it's rather the opposite, as we are encouraged to think new and definitely the culture around. I think is among the most important that you not only have a lot of skeptics and no sayers and instead say "yes, interesting", so you find new solutions." **– M1-ML**

According to the empirical data, the organizations utilizing blockchain and those interested in trying it showed significant enthusiasm and openness. In addition, the majority of respondents stated that they believed that organizations' culture also had a significant influence on the openness to innovative solutions.

4.3. Resistance to Change

As theory anticipated, respondents portrayed how size and age influence the resistance to change dimensions. Furthermore, the leadership and structure of the organizations, connected to the internal communication and hierarchy, were repeatedly brought up as factors influencing resistance to change.

4.3.1. Size & Age

According to structural inertia theory, organizational size and age will influence the change processes that BCT brings. The respondents shared similar perspectives on how

the size of an organization influences BCT adoption. However, one organization that was not involved in blockchain projects during the time of the interview had some contradictory views on the impact of organizational size on adoption.

> "Large companies have a very large influence, as well as whatever it is about. It is as a standardization body, is it, as in different interest groups, is it an initiative in the market when creating a new consortium or something. So, the bigger, the more money you invest the more manpower you can put into all the committees and everything, the greater influence you will have and I think big companies it is in their DNA in some way that they work, they do not want to let anyone else come and take over." **– C3-CL**

> "It's the smaller companies who have time and headspace for that or more in that world. Then there are the big, very big companies who have the resources for that. They take time to explore it and to dive deeper. But I think the growing companies in the middle, it's more difficult because you don't have the bandwidth to do these things." **– R5-RL**

> "We are considered to be called a safe, stable company that has been around for a long time and it is clear that there are better conditions for an unlisted company that is backed by venture capitalists who will go out and change the world. Of course, there are other conditions to be a little more aggressive in how you tackle and choose to use and rely on new technologies. We have a large functioning business that you have to keep in your arms, so we cannot let go of what we have at hand today and change the business model straight up and down. It certainly affects us and we are certainly in a situation that does not give us optimal conditions to be first with new technology." **– R2-RL**

According to the consensus, smaller organizations that specialize in BCT have an easier time implementing it than larger companies. Large corporations appear to have a significant influence on the rest of the industry. Their financial resources may also have an impact on the ability to experiment with technology in operations. Middle-market growing organizations, according to the respondents, have a difficult time implementing BCT because they lack the resources and capacity to adequately explore the technology.

4.3.2. Leadership and Structure

The organization's structure and the executives who take decisions for the organization appeared to play a part in the resistance to change. On the one hand, consultants claimed that decision-makers were more interested in the problems that the technology solved than in the technology itself. On the other hand, people in organizations mentioned that their organizational structure could be a bottleneck for new innovative solutions.

> "We do not really talk so much about blockchain with our customers, but we present the system as a solution to their problems, and we use the technology to solve the problems. The blockchain in this case. They are not so interested in the blockchain, they are just that we see how to solve the problems." **– C1-CS**

> "We have a rather hierarchical view today of looking at things, we have to go up and get approval for the launch of new digital initiatives at a fairly high level. Is it creating strong innovation? No, probably not. We must be able to test and try and be a little more forward-leaning and work in a different way. So of course, there is a part in the structure that we talk quite a lot about. How we should find other forms to work smarter, more efficiently, and better in these matters." **R1-RL**

> "Municipalities are usually quite top-down, so it is enough that the wrong official is sitting, or the wrong manager is sitting, and this has been heard from some colleagues who do not dare to make mistakes. Here it is the opposite, that they got your back anyway, even if it would be wrong." **– M1-ML**

Regarding leadership and structure, resistance to change appeared to be substantial because it was a matter of leader(s) in charge of making decisions and how they perceive things. With a hierarchical structure, adopting BCT appears to be challenging due to a lack of communication and dialogue between leaders and those responsible for digitization and innovation, which makes the process more complex.

4.4. Cultural Resistance

Two themes that capture a more comprehensive picture could be identified when considering topics related to cultural resistance. First, as the norms varied depending on the industry, features played a significant role in adoption. The characteristics of the

industry that influence cultural resistance to adoption mainly relate to sustainability component of BCT. Since the technology's use cases are closely linked to transparency, unethical organizations will naturally resist BCT.

4.4.1. Industry Characteristics

The perspectives of the retailers and consultants portray a picture of how different industries behave and to which degree they are inclined to adopt BCT. Due to different use cases, industries have adopted BCT at various levels.

> "I really believe that the clothing industry that has *Trust-trace* and several others that have taken the lead, have proven that it can be possible. Agriculture and what we work with is, after all, much more difficult and a much slower-moving industry, it is quite clear that many organizations make a lot of money from the fact that it looks like it does today and that nothing has changed." **- C2-CS**

> "If you look at the activity when you go back a few years and at least look at the banking side. Then it was almost like you had to be able to show that you are working with blockchain. It was like prestige. So that if you did not have blockchain projects like then, you were strange, you were weird and far behind, but the thing was that the blockchain projects, it was more that you could sort of tick it off." **– C3-CL**

> "We only saw "press release projects", ie no serious investment but just that you test a technology and do a press release just because it contains a buzzword that generates clicks." **– R4-RL**

Structural variations influence the norms in industries, and it appears that market leaders set the standard as organizations base their decisions on what others do. When discussing norms with those who had not adopted BCT, they believed that those who did, did so for their image and not necessarily for the technology's benefits.

4.4.2. Transparency

As the value of blockchain technology is closely connected to transparency in business processes, we also saw how it affected cultural resistance and how it plays a role in adoption decisions.

> "The companies that sell at high quality. They will want to use blockchain to somehow prove the origin and thus that it is a high-quality product to prove that it is not a cheap rip-off from China." - **C3-CL**

> "I also think there are companies that say they are against hiding information until they actually figure out that there is stuff that they want to hide because everyone has dirty laundry that they want to hide." **– R5-RL**

> "There are clearly quite a few parties in these supply chains who certainly do not want it to not be possible to cover information, because then a large number of irregularities will be discovered … in a way, it's kind of as if "big brother" sees you." **– R3-RS**

> "We have a business development process that prioritizes and sets business plans and then we have development projects based on that. So 99% of it is business-driven rather than technology-driven. It is never the case that we say "look what a nice technology, we should use it" - **R4-RL**

There was a strong consensus about how unethical operations can prevent many organizations from adopting blockchain technology. Frequently, the positivistic interviewees talked about how full transparency in the supply chain could be problematic for the organizations that take shortcuts or operate unethically. On the other hand, respondents from firms who did not employ the technology didn't address the sustainability aspect, emphasizing that their selections were solely based on business considerations.

5. Analysis/Discussion

5.1. The Knowledge Impact

While researching the PIMT framework and how the understanding of BCT serves as a barrier to adoption, respondents suggested that it may not be such a big challenge. On the one hand, the PIMT framework states that a lack of knowledge prevents BCT adoption (Janssen et al., 2019), yet respondents claim that comprehending the technology itself is not crucial. Instead, the perception of its benefits and how it can solve problems seem like an essential factor in adoption decisions. The respondents are supported by Walsh et al., (2021), who suggest that managers' perceptions of benefits substantially impact their reluctance to change. Moreover, it seems as if the technology understanding should not be a barrier but rather the perception of the benefits that BCT would bring to the organization's operations. Furthermore, as perceptions about BCT and its benefits may alter whether, or not, organizations decide to use the technology, openness to the changes that BCT brings was also an aspect of the understanding of BCT that respondents suggested influences the decision making. However, openness requires some understanding of the use cases and how it can enhance organizational operations. The empirics showed that some find it difficult to explain the impact BCT could have, which problematizes the spread of knowledge about the perceived benefits. Hence, BCT adoption could depend on the communication skills of those who truly understand its application to the organization.

5.2. Attitudes

After evaluating the importance of knowledge, industry norms, and transparency, the bottom line is whether the organization allows for innovation and if there is a willingness to try something new. While norms play an essential part in decision-making, culture is what breaks down barriers and bottlenecks, allowing adoption to emerge. The adopting organizations all had one or a few people who were bold enough to make an earnest request that the organization should try BCT. A specific individual's interest led to the in-house development of BCT by that same individual. In other cases,

they had heard about BCT, examined it, and presented it to decision-makers willing to test it out as a project or a pilot.

Furthermore, the organizations that had completed BCT projects were all very optimistic about how it could contribute, and they were all in the process of putting it into practice. According to respondents involved in BCT projects and adoption, the freedom to try new things and encouragement from upper management were essential factors. Furthermore, cultural resistance is usually a result of poor internal communication and a lack of creativity inside the firm. As one of the respondents put it, there is a significant difference between organizations ready to take risks of failure and those who refuse to accept it. Because those who are willing to take risks and fail have the potential to achieve things that no one else can. Moreover, on the other hand, nobody will even mention new ideas as failure would jeopardize one's status in the organization. Therefore, when connection to the PIMT framework with the identified themes, cultural resistance is related to industrial characteristics and transparency, as well as openness, leadership, and organizational structure.

5.3. Industry Leaders' Influence on Others

It quickly became evident that there were significant differences in the norms of BCT adoption depending on the industry. Although the PIMT framework separates market factors and institutional factors, it could be connected, especially in the case of norms and culture. As the interviewees were questioned on how BCT is viewed in their respective industries, data showed that the industry's norms determine the diffusion of BCT and why there is a resistance to change. It seems as if the industry leaders' influence on the market is remarkable, as the respondents frequently mentioned that they are looking at their competitors and what they are doing. It all makes sense when the parameter size and age are considered. The respondents all agreed that large corporations and small startups drive the diffusion of this type of technology and that they are the ones influencing the development and diffusion of BCT in different industries. The organizations in the middle describe their ability to adopt BCT as limited because they lack the time and resources to explore and try new technology if they do not necessarily have to.

Moreover, respondents from large organizations that did not use BCT, at the time of the interview, emphasized that the change in processes would be difficult since it would interfere with their system. Instead, they implied that the small startups that focus wholeheartedly on BCT would drive the adoption going forward. It raises the question of whether the small BCT niche organizations can lead the way in BCT adoption or not. Meanwhile, alternative adoption processes are mentioned by the consultants as they imply that ready-to-use systems developed by outside parties are demanded by several industries and sectors. The distinction between developing BCT in-house or using an already proven system makes a big difference in the change processes that would be undertaken. The consultants say that the organizations and their leaders do not necessarily need to know all about the technology but solely need to be informed on how it can improve their organizations' operations when using the BCT systems offered by IT service companies. According to the retail respondents, these ready-to-use solutions have seen some success recently, and whether or not they are adopted may have to do with the organizational structure and decision-making processes. The decision-making units of the organizations would need to know the benefits of BCT to adopt it, which means that they somehow need to be informed. That is where the structure becomes essential. The respondents said that the creativity and channeling of new ideas depended on the organization's culture, influencing how decision-makers perceived the new ideas. With a top-down structure, new initiatives, and propositions like BCT adoption are much rarer than in an organization that encourages employees to come up with new ideas and lets them impact the decisions made in the organization. Furthermore, cultural resistance seems to have its roots in the organizational structure and how communication is conducted through hierarchies and leadership styles.

5.4. The Transparency Dilemma

With a good understanding of how BCT adoption works in different industries, it is interesting to observe how organizations perceive BCT and whether they see any applications. Organizations' perceptions of BCT as a beneficial technology are heavily determined by their operations and business practices. Since transparency is one of BCT's unique selling points, respondents repeatedly stressed how it ultimately determines whether or not BCT is adopted. Moreover, if companies want to be

transparent and display every stage of their supply chain is indeed a dilemma. Those in favor of BCT and transparency acknowledged that opponents likely want to hide things from the public eye. The findings presented hints of unethical operations and a fear of being exposed. However, those skeptical about BCT adoption, on the other hand, claim that their motives for not using it are purely business-related. One of the respondents, who works for a market-leading Swedish company, indicated that they make decisions based on business rather than technology when it comes to new technology. This argument could be countered in several ways, as research demonstrates that BCT can enhance businesses and is not merely a modern new technology. This explanation could be a lack of understanding of the benefits or a manner of inventing excuses for not wanting to be transparent with supply chains. If that is the case, it is an example of how cultural resistance influences BCT adoption and constitutes a significant hurdle for industry adoption. Bad habits and norms will continue to be profitable if firms do not realize the need for transparency in the fight against unethical practices. Taking this a step further, it may just be a matter of customer demand; if no one asks to see how things are done, cutting corners, and operating unethically may be the inevitable outcome as long as it grants profits to stakeholders. The PIMT framework's resistance to change dimension can be best understood by looking at organizational transparency and the types of inconveniences that organizations would wish to hide. As the world moves toward more sustainable markets and industries, the desire for complete transparency is likely to increase, implying that BCT will be the solution to market demand. Based on the responses, companies will not change unless they are forced to, or the advantages of change are too good to pass up.

6. Conclusions

Analyzing the empirical findings, several conclusions regarding the adoption of blockchain within Swedish organizations could be drawn. Firstly, according to the PIMT framework, which stated the knowledge about BCT as an obstacle to the adaptation of the technology, this study has not been able to confirm this statement. In contradiction, according to this thesis's empirical material, it is instead a matter of informational skills within organizations. Secondly, the attitude towards new technologies in general and BCT, in particular, is important for the adoption of blockchain within Swedish organizations. There is clearly a need for willingness and interest in the technology and/or the benefits of BCT within leaders in an organization for the technology to be brought up in the light, even as a temporary pilot project. Another clear conclusion is that the organization is ready to take risks and for individuals not to be afraid of jeopardizing their status in the organization.

In addition, the fact that norms and cultures do affect the adoption of blockchain technology is something this empirical material clearly states regarding the organization management style where an organization with top-down structures has fewer new initiatives and propositions as BCT compared to the organizations that stimulate and welcomes employee initiatives and projects and involves employees and leaders of different levels to impact the decision making. The empirical material also indicates crucial resistance towards BCT adoption rooted in the organizational structure and how communication is conducted through hierarchies and leadership styles. Furthermore, cultural resistance regarding transparency within organizations. It has been mentioned during the data collation process but has never been admitted as a problem within the own organization. Many organizations state and would like to state themselves as transparent, but the knowledge of blockchain being a truly transparent technology compared to only the claim of transparency seems to be something that hinders some companies from adopting BCT. The empirical material implies that there is a gap between the companies implementing the technology to prove their level of transparency and the companies avoiding it to hinder full transparency.

Finally, a concluding observation is that the organizations with successful BCT adoptions have similar approaches and knowledge of the technology and its benefits. The participants working with the successful implementations all state that there has been a positive attitude towards trying new technologies as solutions with their organizations and a specific interest in BCT after learning about the benefits. They all confirm that they have had knowledge about BCT. However, if not, they have quickly gained it and been productive in informing the organization about the technology and its benefits. They have all been having a goal to become or mimic industry leaders in different innovation aspects and therefore have been willing to adopt BCT or start their own projects. Lastly, they all have had a specific agenda for increasing transparency with the help of BCT.

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Appendices

Appendix 1: Interview guide for consultant respondents

Formalia

- Berättar om oss själva (ev något personligt). Berätta om SSE, Business and Economics sista terminen.
- Skriver uppsats i management. Intresserade av blockchainanvändning i organisationer. Ser att det blir vanligare att företag erbjuder tjänster kopplade till blockchain.
- Du och företaget är anonyma. Allt material kommer att raderas när uppsatsen är klar.
- GDPR formulär
- Är det ok att vi spelar in?

Om dig

- Kan du berätta lite om dig själv och din bakgrund?
    - Hur länge har du jobbat på X?
    - Varför valde du att började jobba på X?
    - Vad har du för roll på X?
    - Vilken typ av organisationer jobbar ni med?
        - Statliga organisationer eller stora/små företag?

Kunskap om Blockchain

- Vem tar beslut om att införa Blockchain i svenska organisationer?
- Hur upplever du kunskapsnivån inom Blockchain hos de organisationer ni jobbar med?
    - Varför finns det / finns det inte kunskap inom Blockchain i svenska organisationer?
    - Påverkar det beslutstagandet?

Utmaningar

- Hur skulle ni beskriva intresset för Blockchain hos organisationerna ni jobbar med?
- Har storlek på organisationerna en inverkan på implementering?
- Finns det några sätt att hantera utmaningar eller barriärer som uppstår?

Kultur

- Hur ligger svenska bolag till i förhållande till internationella i implementering av Blockchain?
    - Vad beror detta på?

- Hur skiljer sig branscher i deras inställning till Blockchain?
- Har ni sett en skillnad på inställningen till Blockchain jämfört med andra tekniska lösningar?
- Skulle du säga att organisationsskultur påverkar huruvida organisatoner implenterar Blockchain eller inte?

Avslut

- Kan du rekommendera någon annan du tycker vi borde prata med?
- Är det okej om vi mejlar om eventuella andra frågor skulle komma upp?

Appendix 2: Interview guide for consultant respondents (English translation of Appendix 1)

About us

- Tells about ourselves (possibly something personal). SSE, Business and Economics - Last semester. Writes an essay in management. Interested in the use of blockchain use in organizations. Sees that it is becoming more common for companies to offer services linked to blockchain.
- You and the company are anonymous. All material will be deleted when the essay is completed.
- GDPR-consent form
- Is it ok for us to record?

About you

- Can you tell us a little about yourself and your background?
    - How long have you worked at X?
    - Why did you choose to start working at X?
    - What is your role on X?
    - What type of organizations do you work with?
        - Government organizations or large / small companies?

Knowledge about Blockchain

- Who decides to introduce blockchain in Swedish organizations?
- How do you experience the level of knowledge within blockchain in the organizations you work with?
    - Why is there / is there no knowledge within blockchain in Swedish organizations?
    - Does it affect decision making?

Challenges

- How would you describe the interest for blockchain from the organizations you work with?
- Does the size of the organizations matter for adoption?
- Are there any ways to handle challenges that occurs?

Culture

- How are Swedish companies in relation to international companies in the implementation of blockchain?
    - What is the reason for this?
- How do industries differ in their approach to blockchain?

- Have you seen a difference in the attitude to blockchain compared to other technical solutions?
- Would you say that organizational culture affects whether organizational tones implement blockchain or not?

Ending

- Can you recommend someone else you think we should talk to?
- Is it okay if we email if any other questions should come up?

Appendix 3: Interview guide for retail and municipal respondents

Formalia

- Berättar om oss själva (ev något personligt). Går sista terminen. Skriver uppsats i management. Intresserade av användandet av Blockchain användning i organisationer. Ser att det blir vanligare att företag erbjuder tjänster kopplade till Blockchain.
- Du och företaget är anonyma. Allt material kommer att raderas när uppsatsen är klar.
- Är det ok att vi spelar in?

Om dig

- Kan du berätta lite om dig själv och din bakgrund?
    - Hur länge har du jobbat på X?
    - Varför valde du att började jobba på X?
    - Vad har du för roll på X?

Kunskap om Blockchain

- Vem tar beslut om att införa ny teknik i er organisation?
- Hur upplever du kunskapsnivån inom just Blockchain hos er organisation?
    - Varför finns det / finns det inte kunskap inom Blockchain?
    - Påverkar det beslutstagandet?

Utmaningar

- Hur skulle du beskriva ert samt andra bolags intresset för Blockchain?
- Har storleken på er organisation haft en inverkan beslutet om implementering?
- Finns det några sätt att hantera utmaningar eller barriärer som uppstår?

Kultur

- Hur ligger er organisation till i förhållande till andra när det gäller implementering av Blockchain och ny teknik över lag?
    - Vad beror detta på?
- Hur skiljer sig organisationer inom ert verksamhetsområde i deras inställning till Blockchain?
- Har ni sett en skillnad på inställningen till Blockchain jämfört med andra tekniska lösningar?
- Skulle du säga att er organisationskultur har påverkat huruvida ni valt att implementera Blockchain eller inte?
- Hur tror du att svensk organisationskultur står sig i förhållande till internationella när det kommer till att implementera ny teknik som Blockchain?
    - Vad beror detta på?

Avslut

- Kan du rekommendera någon annan du tycker vi borde prata med?
- Är det okej om vi mejlar om eventuella andra frågor skulle komma upp?

Appendix 4: Interview guide for retail and municipal respondents (English-translation of Appendix 3)

About us

- Tells about ourselves (possibly something personal). SSE, Business and Economics - Last semester. Writes an essay in management. Interested in the use of blockchain use in organizations. Sees that it is becoming more common for companies to offer services linked to blockchain.
- You and the company are anonymous. All material will be deleted when the essay is completed.
- GDPR-consent form
- Is it ok for us to record?

About you

- Can you tell us a little about yourself and your background?
    - How long have you worked at X?
    - Why did you choose to start working at X?
    - What is your role on X?

Knowlegde about Blockchain

- Who takes the decision of implementing new technology within your organization?
- How do you experience the knowledge level of BCT within your organization?
    - Why is there no knowledge in Blockchain?
    - Does it affect decision making?

Challanges

- How would you describe your and other companies' interest in Blockchain?
- Has the size of your organization influenced the decision to implement?
- Are there any ways to deal with challenges or barriers that arise?

Culture

- How is your organization in relation to others when it comes to implementing Blockchain and new technology in general?
    - What does that depend on?
- How do organizations within your area of activity differ in their approach to Blockchain?

- Have you seen a difference in the attitude to Blockchain compared to other technical solutions?
- Would you say that organizational culture influences whether companies choose to implement Blockchain or not?
- How do you think Swedish organizational culture stands in relation to international ones when it comes to implementing new technology such as Blockchain?
    - What does that depend on?

Ending

- Can you recommend someone else you think we should talk to?
- Is it okay if we email if any other questions should come up?