UNIVERSITY OF VAASA

SCHOOL OF MANAGEMENT

Tiia Toivola

VALUE CO-CREATION AND CO-PRODUCTION IN STARTUP-CORPORATION RELATIONSHIPS: UNDERSTANDING STARTUP EXPECTATIONS

Master's Thesis in

Strategic Business Development

VAASA 2019

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UNIVERSITY OF VAASA

Author:	Tiia Toivola
Thesis topic:	Value co-creation and co-production in startup-corporation relationships: understanding startup expectations
Name of supervisor:	Marko Kohtamäki
Degree:	Master of Science in Economics and Business Administration
School:	School of Management
Master's programme:	Strategic Business Development
Year of Entering the University:	2014
Year of Completing the Master's Thesis:	2019 **Pages:** 104

ABSTRACT

Startups are entering and disrupting the traditional industries. However, business relationships between startups and large corporations can be challenging. Due to the asymmetries in size, resources and market access, startups and large corporations face several challenges in establishing a mutually beneficial relationship that could facilitate innovation. Moreover, expectations on both sides remain often hidden.

The purpose of this study is to give a comprehensive understanding of value co-creation and coproduction in startup-corporation relationships in the form of an embedded single case study. This study takes an interpretative view to the empirical evidence to distinguish the most critical expectations. By combining the theory of inter-organizational relationships, and value co-creation and co-production this study develops a theoretical framework for understanding startups expectations in such a dyadic relationship. Moreover, these expectations are categorized to (1) fuzzy (2) implicit and (3) unrealistic expectations.

The findings indicate that understanding startups expectations could mitigate asymmetrical hurdles, resulting in long-term relationship quality between startups and large corporation. The findings offer business executives and startups strategic and managerial insights to better understand the startups expectations.

KEYWORDS: startup-corporation relationship, expectations, value co-creation and co-production

1. INTRODUCTION

Startups are entering and disrupting the traditional industries. However, business relationships between startups and large corporations can be challenging. Yet, the new players, such as startups, are entering even the most traditional industries with the aim to disrupt the familiar ways of working by using new technologies (OECD 2017). This lays a prerequisite for cooperation practices despite the widespread competitive setup (Vargo & Lusch 2016). Moreover, novel, emerging and pioneering technologies may be the tool for large corporations to become more innovative (Ahuja & Lampert 2001) and embrace the velocity and uncertainty of technological change (OECD 2018). However, size, interests and agility are examples of the different characteristics in both external and internal environments that can cause barriers to startup-corporation relationship.

1.1. Motivation for the study

Business relationships form an essential part of economic activity and are almost a prerequisite for exchanging value between two or more companies. Moreover, companies must stay innovative. Perhaps the decline in corporations' engagement in scientific R&D (Arora, Belenzon & Patacconi 2018) pushes the large companies to observe other forms of collaboration, which can be commercialized faster.

Thus, the increasing entrepreneurial activity is seen as a promising opportunity for traditional industries to respond to the intense global competition among companies

(Sipola, Puhakka & Mainela 2016). To continue short product life cycles, intense competition and increased product complexity drive large corporations to change their current operations (Minshall et al. 2008) and engage with open innovation strategies. Therefore, novel, emerging and pioneering technologies may be the tool for large corporations to be more innovative (Ahuja & Lampert 2001).

Startup-corporation relationships are rapidly increasing, since several large firms see these relationships as method to access innovation and also potentially promote internal cultural change (Bannerjee, Bielki & Haley 2016). Thus, structured programs to engage and collaborate with startups are established more than ever before (Becker & Gassmann 2006; Kohler 2016). Hence, the ability to establish relationships between startups and corporations is seen as a critical way to survive in the ever-tightening competition. Even though many large industrial corporations are already engaged with startups, they seem yet hesitant in conducting direct investments to startups (Lappalainen 2019). Additionally, new business opportunities carry along a set of uncertainty and innovations outside the core business become scarce due to the high level of risk. This discourages established companies to observe the opportunities in-depth. (Ganguly & Euchner 2018.)

1.2. Research gap

Startups have been studied in the context of open innovation (Battistella, De Toni, & Pessot 2017; Spender et al. 2017), corporate accelerators (Kohler 2016) and business models (Bednar, Tariskova & Zagorsek 2018). Additionally, already Smith and Cooper (1986: 111) identified that young industries may offer considerable

opportunities to established firms. However, the relationship literature has mainly focused on the role of another large partner, an organization or university, but the startup's role in the literature has been neglected (Spender et al. 2017). Therefore, taking primarily startups perspective to relationships offers promising paths for research.

Moreover, the increasing entrepreneurial activity is seen as a promising opportunity for traditional industries to respond to the intense global competition among companies (Sipola, Puhakka & Mainela 2016). In addition, considering the notorious search for a scalable business model (Blank 2013; Spender et al. 2017; Rompho 2018), startups have their own incentives to establish a relationship with a significantly larger company. A partnership can give credibility, access to critical resources to commercialize the offering or the financial capability to bring the offering to market (World Economic Forum 2018).

However, Hogenhuis et al. (2017) recognized that present research provides a view to these partnerships but lacks knowledge of the prior processes that eventually lead to establishing such a relationship. Consequently, despite the extensive literature on the collaboration models between startups and corporations (Chesbrough & Brunswicker 2013; Weiblen & Chesbrough 2015), there seems to be an additional lack of research on what happens in succession to the partner selection. Also, Spender et al. (2017) highlight that the mechanisms and practices to manage the relationship between two significantly different partners remain unclear. Therefore, once a startup and a corporation have decided to work together, an applicable framework is needed to foster the relationship.

Startup-corporation relationship, like any relationship, means generating something new by combining the strengths and capabilities of the two parties (World Economic Forum 2018). To highlight this duality, Kohler (2016) stated well that ''collaboration needs to fuel corporate and startup interests to create mutual value''. Thus, value co-creation and coproduction (Vargo & Lusch 2008) provides an appropriate lens to view the startup-corporation relationship by giving the relationship service-based foundations. Thus, further insights are needed to understand how startups expectations emerge in the startup-corporation relationship. Further, the co-dependencies in for example resources and knowledge suggest adding an additional theme in the form of value co-creation and coproduction.

Further, given the apparent link between startups and large corporations, there is a lack of widely acknowledged interest to study these organizations more (Spender et al. 2017). Taking influence on the framework for managing expectations (Ojasalo 2001), this study intends to view startups expectations towards the startup-corporation relationship. For instance, it is unclear what the startups expect from a large corporation when entering such a collaborative relationship. To conclude, figure 1 presents the focus of this study.

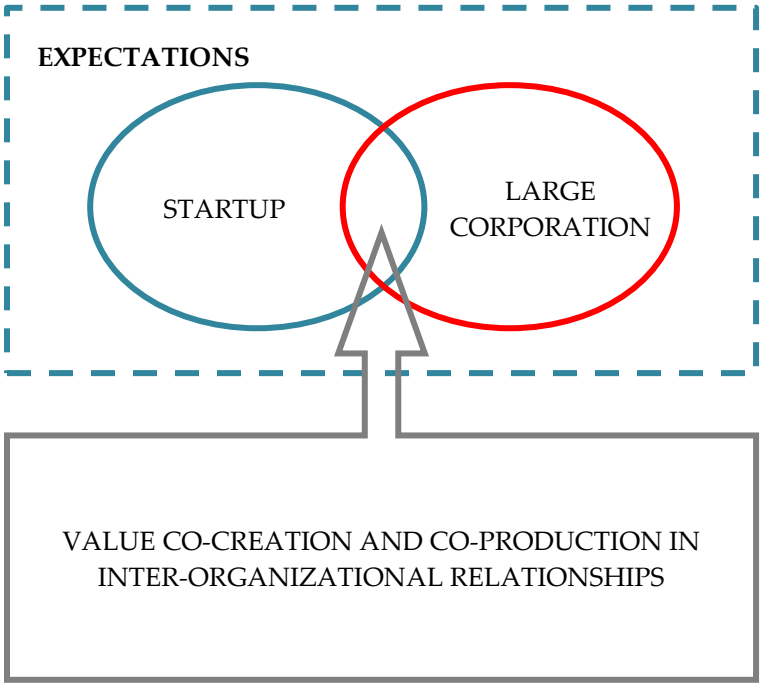


Figure 1. The focus of the thesis.

1.3. Research problem and theoretical contribution

As stated above, the need for further study on startup-corporation relationships is clear. Additionally, value co-creation offers a supplementary view of this relationship. Thus, the following research questions are specified according to the study topic of value co-creation and coproduction in startup-corporation relationships, acting as guiding element to articulate what the study aims to achieve (Bryman & Bell 2015; Gioia, Corley & Hamilton 2014). Therefore, the primary research question for this study organized as follows:

What kind of expectations startups have in a startup-corporation relationship?

Despite the coherent portray of the primary research question, finding an answer to it requires the inclusion of additional research questions. Consequently, the secondary research questions to be answered are:

RQ1: How the startups expectations influence a startup-corporation relationship?

RQ2: How value is co-created and coproduced in such relationships?

Even though this study focuses on startups, large corporations' side is involved by conducting this study in collaboration with a large industrial company, further referred as *case company.* Thus, this study may prepare companies to establish better understanding of startups and their expectations, in addition to suggesting how managers can facilitate the startup-corporation relationships. Based on the findings of this study, a startup onboarding process will be developed for the case company. This will, potentially, enable the case company to maintain a high level of interest among startups and renew the corporate culture towards more startup friendly.

In addition, to respond to the case company's goals and objectives, this study contributes to the existing literature by taking a startup's view of the relationship with a large corporation. By utilizing inter-organizational relationship theory (see Cropper et al. 2008) and value co-creation and coproduction theory (for example Vargo & Lusch 2008; Kohtamäki & Rajala 2016), this study focused on giving a comprehensive understanding on value co-creation and coproduction in startup-corporation relationships in the form of a literature review.

The study examines startup-corporation relationship through an embedded single case study. Starting with a literature review in the above-mentioned fields, this study collected primary data from semi-structured interviews and analysed the material through the interpretative technique with two specific objectives in mind:

(1) identify expectations that characterize the startup-corporation relationship,

(2) recognize the most critical expectations, which should be aligned when a large corporation is building a relationship with a startup.

In terms of value co-creation and coproduction, additional two objectives were maintained throughout the study:

(1) identify what kind of value startups seek in startup-corporation relationships,

(2) processes related to value co-creation and coproduction.

1.4. Thesis structure

Given the discussion above, this thesis is organized as follows to clarify the thesis progression (Saunders, Lewis & Thornhill 2016: 176). First, the study will cover the theoretical background of startup-corporation relationships and value co-creation and coproduction to develop a framework to understand the expectations startups may have in terms of establishing a relationship with a large corporation. Second, the methodological choices are presented to justify the decision to conduct an embedded single case study. Thirdly, the findings of this study are summarized to

a theoretical framework to illustrate the topic related patterns. Finally, the theoretical contributions and managerial implications are discussed.

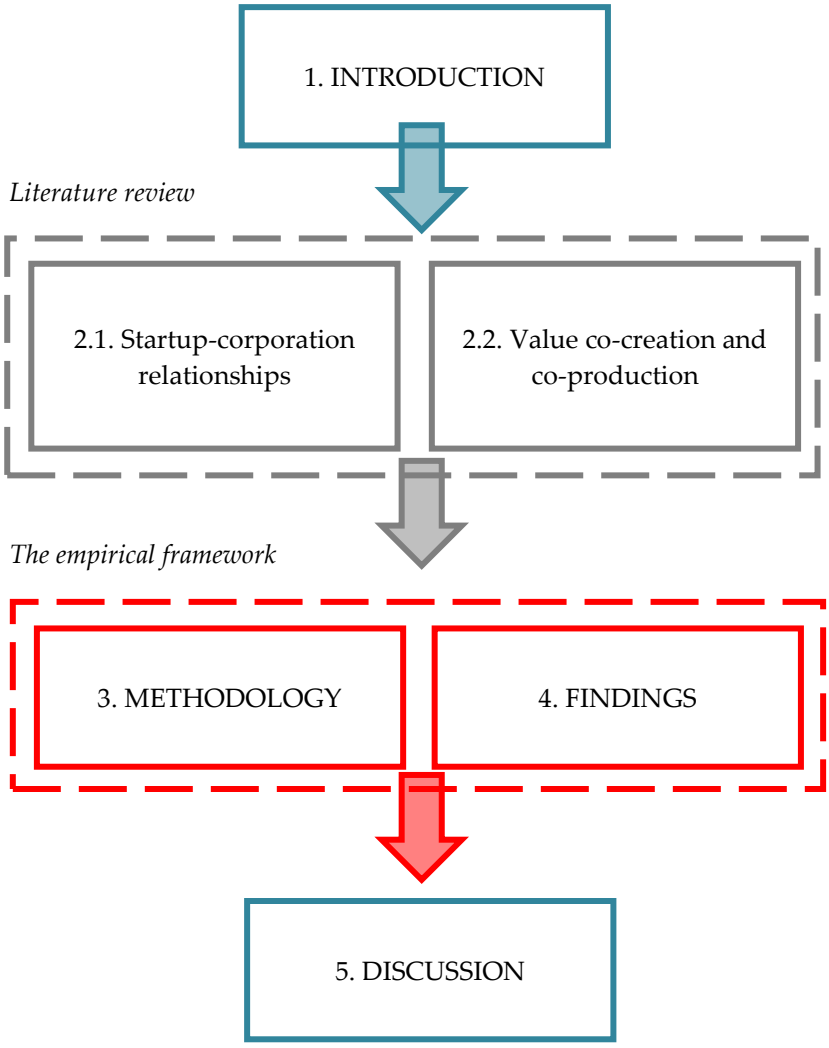


Figure 2. The structure of the thesis.

2. LITERATURE REVIEW

Next, the study focuses on providing an in-depth literature review of the key concepts and their interplay. This chapter begins with a discussion on startup-corporation relationships, which forms the theoretical groundings for this study. The second part reviews value co-creation and co-production in these relationships. The third part of the literature review summarizes these theories to a theoretical framework to form a comprehensive understanding of value co-creation and coproduction in startup-corporation relationships. The framework is tested in the empirical part of this study to provide practical evidence of startups expectations in startup-corporation relationships.

2.1. Startup-corporation relationships

A relationship describes how two or more people or things are connected, or the state of being connected (Oxford Dictionary 2019). Thus, the relationship may either be a dyadic, two-sided relationship or even extend to multiplicities relationship within a network of organizations. (Cropper et al. 2008: 4–6). Additionally, the connection between parties may be only transactional and short-term or extend to long-term commitment (Mocker et al. 2015). Consequently, the startup-corporation relationship is a form of dyadic relationship since it involves two parties.

Startup and large corporation are separate organizations, which together may form an inter-organizational relationship. Moreover, inter-organizational relationships exist either in the vertical or horizontal stream (Cropper et al. 2008). However, Miotti

and Sachwald (2003) identified that higher technology industries might prefer horizontal relationships over vertical relationships, whereas more mature industries prefer vertical relationships in their value chain. Nevertheless, the relationship gives a competitive advantage to the involved parties, since especially vertically linked companies are a source of scientific and technological progress during the last century (Arora, Belenzon, and Patacconi 2018).

Therefore, the objective to form relationships is to attain economies of scale, market strength or to utilize new opportunities (De Faria, Lima, and Santos 2010). However, also the technical, commercial and social capital affect the company's incentives and opportunities to form linkages to other companies (Ahuja 2000). Typically, inter-organizational relationships are formed between and among public, business or non-profit organizations (Cropper et al. 2008: 4–6).

To describe the degree of collaboration between two relationship parties, O'Brien (2014) summarized the degree of collaboration to four types: *arm's length* collaboration with minimal amount of collaboration, *cooperation* to find solutions to problems, *collaboration* with a longer-term perspective and *integration* where the parties are structured to work in a joint team (figure 3). Additionally, Minshall and Mortara (2010), and Margulis and Pekar (2003) have identified the increasing integration as a mediating factor when developing the relationship further. Thus, aligned with these perspectives, the startup-corporation relationship may be a combination of cooperation and collaboration, with a possibility to develop towards deeper integration level.

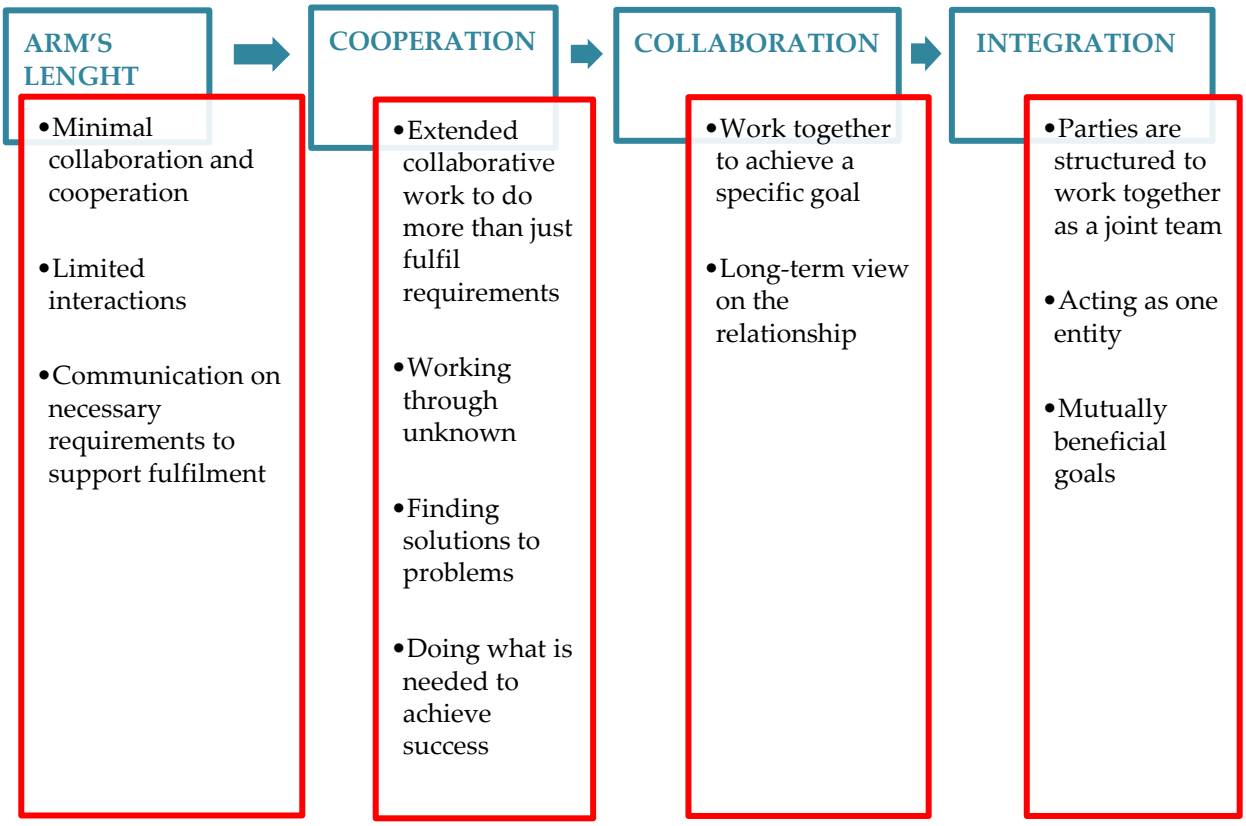


Figure 3. Degrees of collaboration (adapted from O'Brien 2014: 33).

Further, Kale and Singh (2009) introduced the possible linkages among the variety of inter-organizational relationships (figure 4). The breakdown to contractual agreements and equity agreements, and further to traditional contracts, non-traditional contractual partnerships, and the effects of equity arrangements to organization structure highlights the multisided typology of inter-organizational relationships.

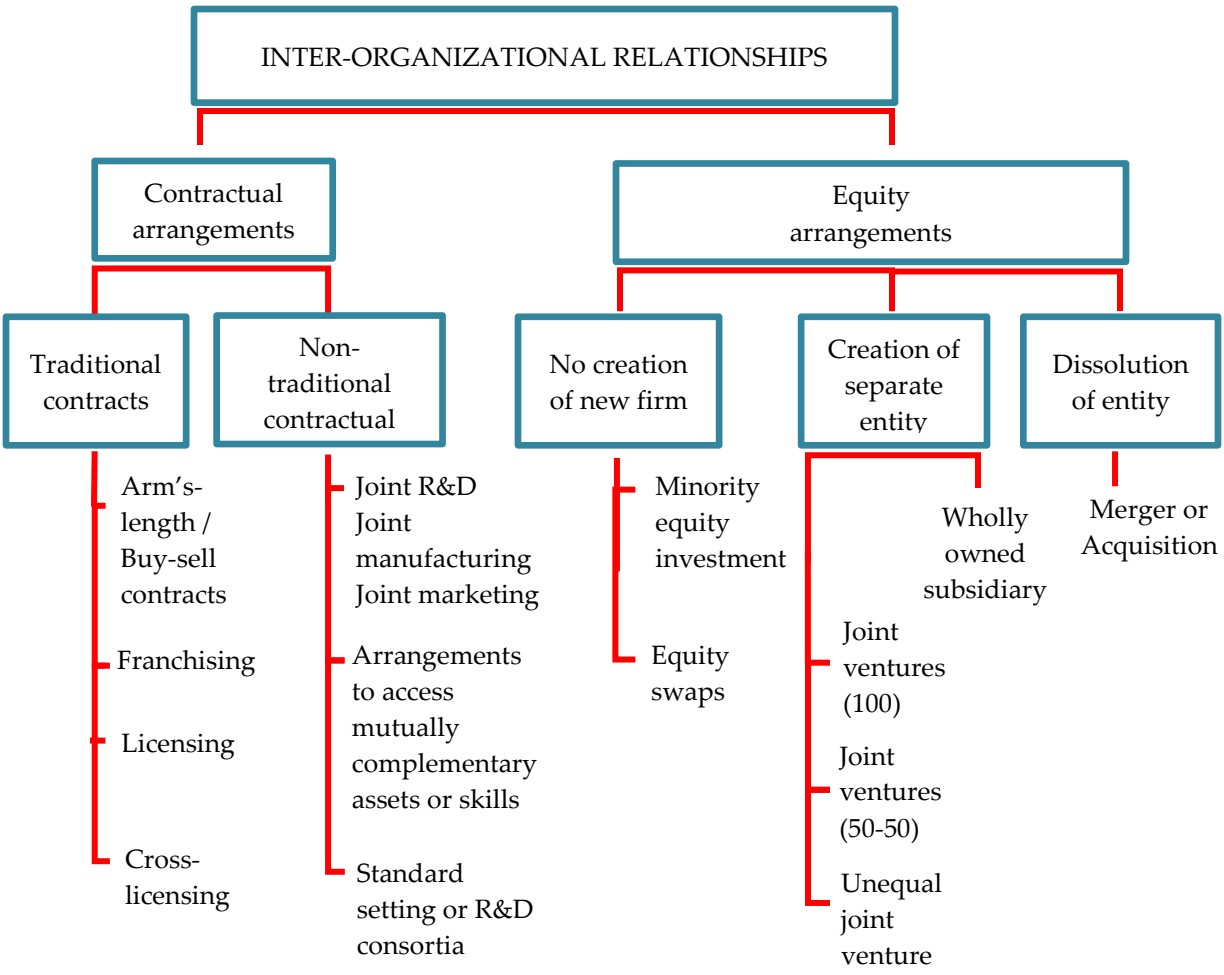


Figure 4. The typology on inter-organizational relationships (adapted from Kale & Singh 2009).

Despite Kale and Singh (2009) typology, the discourse around inter-organizational relationships encompasses wide terminology. Definitions such as alliance (Graebner, Lumineau & Fudge Kamal 2018), collaboration (Enz & Lambert 2012), partnership (Minshall et al. 2008), joint venture (Van De Vrande, Lemmens, & Vanhaverbeke 2006), relationship (Kelly & Scott 2012), strategic alliance (Todeva & Knoke 2005) and cooperation (Weber & Heidenreich 2018) are commonly utilized to further specify inter-organizational relationships. Therefore, inter-organizational

relationships may be considered as a cover theme to various kinds of relationships between organizations. To provide a sense of clarity, this study utilizes the term *relationship* to describe the relational activities and elements between a startup and a corporation. (Cropper et al. 2008: 4–6.)

Despite the fascinating spectrum of different kinds of relationships between organizations, perhaps more interesting view to inter-organizational relationships are the elements, which promote relationship quality. Relationship quality measures the strength or closeness of a relationship (Brun, Rajaobelina, and Line 2014) and several complementary elements may be detected from the prior literature that generates superior relationship quality.

Trust, commitment and satisfaction are seen as the main quality building elements in relationships (Čater & Čater 2010; Hutchinson et al. 2011). However, it is valuable to illustrate also other relationship elements due to the numerous ambiguities within startup-corporation relationship. Table 1 demonstrates the relationship elements to build more holistic embodiment of the elements that influence relationship quality.

Table 1. Relationship elements (adapted from Hutchinson et al. 2011).

Author \ Relationship element	Trust	Commitment	Satisfaction	Conflict	Interdependency	Power	Coordination	Cooperation	Communications	Size	Mutuality	Interaction	Iterative	Beneficial	Change in behavior	Uniqueness	Asymmetry
Massey et al. (2019)	●											●					
Wang & Tarn (2018)	●				●												
Peppers & Rogers (2017)	●										●	●	●	●	●	●	
Stevens, MacDuffie, Helper (2015)	●																
Dowell et al (2015)	●	●															
Bachman & Inkpen (2011)	●																
Hutchinson et al. (2011)	●	●	●	●	●	●	●	●	●								
Brun et al. (2010)	●	●	●														
Čater & Čater (2010)	●	●	●														
Johnsen & Ford (2008)										●							●

Consequently, Peppers and Rogers (2017:46–48) propose an array of characteristics for business relationships. Primarily, both parties must participate and acknowledge the relationship. This character of *mutuality* entails the two-folded nature of relationships. Additionally, both formal and informal relationships must be in place to exchange knowledge between partners (Padilla-Meléndez, Del Aguila-Obra & Lockett 2013).

Secondly, relationships are driven by *interaction* in the form of exchanging information within the relationship. In addition, Wang and Tarn (2018) reasoned that relationships with knowledge interdependency and mutual trust could provide better success than compared to the parties operating individually. Despite the acknowledged benefits of interactions (Bannerjee et al. 2016), resource-related theories have identified a paradox between protecting and sharing knowledge across firm boundaries (Loebbecke, van Fenema & Powell 2016). (Peppers & Rogers 2017: 46–48.)

Thirdly, relationships are *iterative* by their nature, since each interaction between the parties builds the relationship further when the parties know each other better. (Peppers & Rogers 2017: 46–48.) Especially startups are known for their iterative way of working and the mentality of failing fast (World Economic Forum 2018). Fourthly, relationships must provide continuous *benefit* to both parties. Minshall et al. (2008) additionally agree that a level of mutuality and urge to exchange benefits are key in formation of a relationship between a startup and a large corporation. (Peppers & Rogers 2017: 46–48.)

These factors together lead to the fifth characteristic, which states that relationships require a *change* in behaviour since relationships develop over time through a reflective process where the history and future of interactions should be noted in the current state of the relationship. (Peppers & Rogers 2017: 46–48.) This behavioural change may, however, increase relationship governance generating either formal or informal rules between the parties. For instance, formal governance may occur in

the form of contracts, whereas informal governance is related to trust and commitment. (Griffith & Myers 2005.)

Above all relationships are *unique* and require *trust* in pursuance of continuance according to Peppers and Rogers (2017: 46–48). But, trust has a complex position in relationships, since it is linked to innovation, contracts, competitiveness and institutions. While it seems to be an important way of managing uncertainty in relationships, the trust-building processes in firms may rely on safeguards like legal regulations to force the early formation of the relationship. (Bachmann & Inkpen 2011.) Yet, Dowell et al. (2015) concluded that trust includes five elements, two emotional and three cognitive. Emotional trust, consisting of relational and intuitive elements, has a significant effect on relationship performance in the early stages, although it does not have a similar significance in a later stage relationship. Additionally, cognitive trust consists of competency, integrity and goodwill trust, which all mediate commitment in relationship. (Dowell et al. 2015.)

2.1.1. Startup characteristics

A startup is a temporary organization or a newly established business (Oxford Dictionary 2018) designed to search for a repeatable and scalable business model (Blank 2013; Spender et al. 2017; Rompho 2018). It is established to operate in an uncertain and volatile environment with the objective to rapidly generate new business opportunities (Hoffman and Radojevich-Kelley 2012). Correspondingly, these companies are also referred to as young firms (Baum, Calabrese, & Silverman 2000) or new entrants (Rothaermel 2002). The term young venture is also used in the

literature to describe both startups and small scale-up companies that have less than 50 employees (Hogenhuis, Van Den Hende & Hultink 2016). Additionally, Sipola et al. (2016: 181) describe startup as a new venture that is aiming for high growth in international markets.

Startups, regardless of their time of existence, have a stronger urge to collaborate due to the lack of internal resources (Katzy et al. 2013). A startup can indeed bring agility and unusual thinking methods to the startup-corporation relationship, while a corporation utilizes its market coverage and negotiation power. (World Economic Forum 2018.) Startups have smaller organizations and centralized controls, which can decrease the concern on relationship conflicts (Chen & Chen 2002).

But startups are struggling to proof their ideas and enter the market. Since they have no track record of prior performance, commercializing new technology is difficult. (Rothaermel 2002: 389.) Moreover, startups may require different forms of support or resources depending on the growth stage. Figure 5 illustrates the key stages of startups growth from idea development to scaling. As can be seen the number of customers grows rapidly once the startup reaches product-market fit.

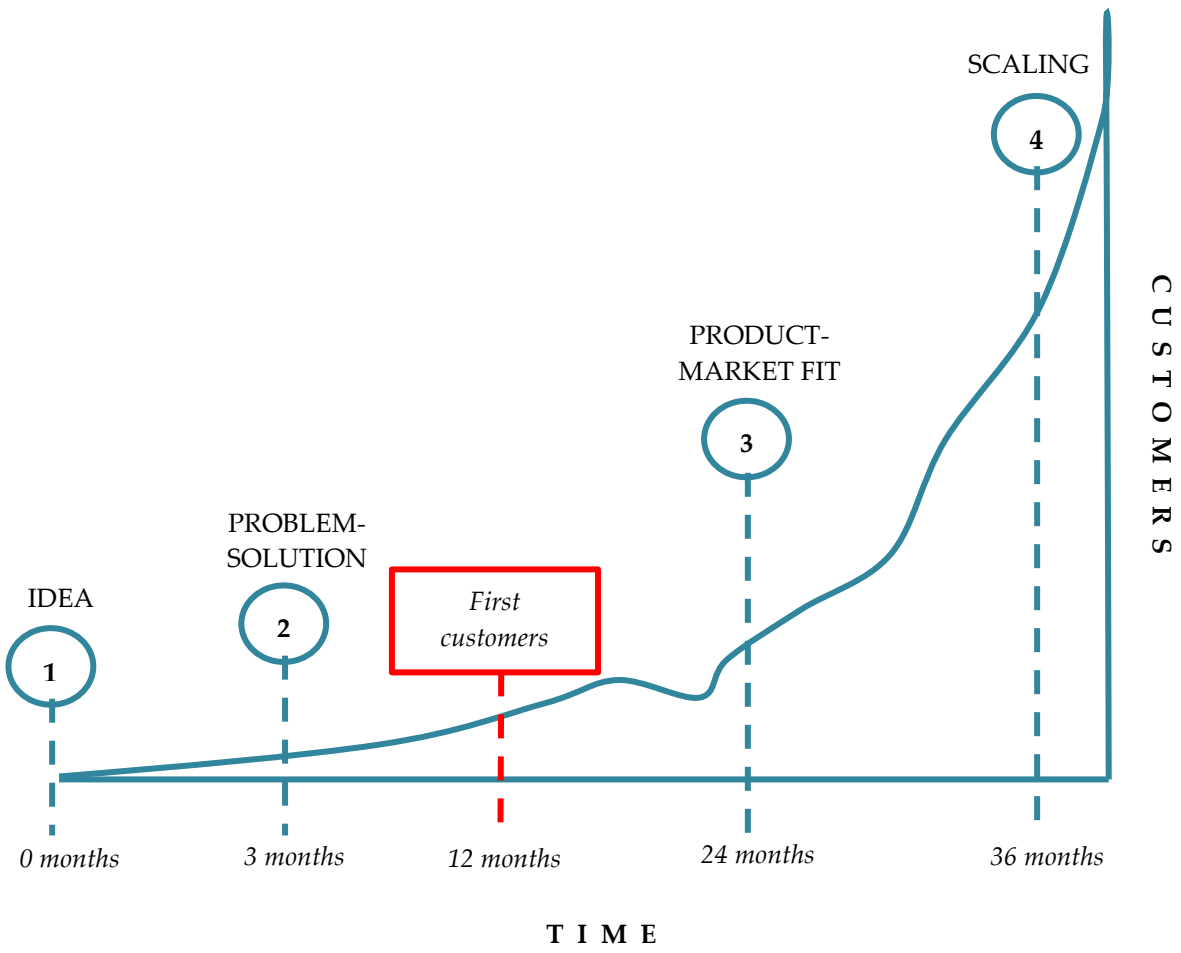


Figure 5. The growth phases of startup (adapted from Maurya 2016: 90).

As Maurya (2016: 73–90) states, startups are after these steep growth rates. Their business starts from idea development, and already in three months, they have reached problem-solution fit to begin attaining the first customers. Moreover, in just two years startups ought to reach the product-market fit and catch a steep scaling curve in three years.

Consequently, startups are keen on collaborating with a large corporation in the commercialization stage than in the development stage of their technology due to the risk of losing their technological competence while sharing information to the corporation (Katzy et al. 2013). Moreover, a continuous relationship may hold a high-expected future value, which can counterbalance the present costs (Peppers & Rogers 2017: 47.)

Hence, startups are after similar business principles as any company – attaining customers to generate revenue (Maurya 2016: 73-90). Consequently, Spender et al. (2017) recognized three themes that create and facilitate the success of startups. Firstly, financing systems were identified as most important for startups. Moreover, access to enough funding has a direct positive link to low startup mortality and higher productivity according to Vitali, Tedeschi and Gallegatiy (2013). However, regardless of the recognized importance of funding, most startups programs do not meet this financial need. Secondly, knowledge creation and the mechanisms to transfer knowledge between different partners were recognized as beneficial for startups. Thirdly, the formal and informal governance system regulates the creation and growth of startups.

2.1.2. Large corporation characteristics

Large corporations are bigger entities with set organizational structure and hierarchy. They are authorized to operate either solely or as a group of companies, which are recognized by law. (Oxford Dictionary 2018.) These companies are also referred to as incumbent firms (Rothaermel 2002), established firms (Katila & Shane

2005) or large firms (Minshall et al. 2008) in the literature. Moreover, large corporations have access to resources, scale, power and routines according to Weiblen and Chesbrough (2015).

Moreover, large corporations may be interested to work with startups to protect their strategic position and enable innovation, gaining competitive advantage, act closer to customers, and to track changes within their market. Moreover, the possibility to gain new revenue streams attracts the large corporations to work with startups. (World Economic Forum 2018.)

One typical characteristic for large corporations is the not-invented-here (NIH) syndrome, which Antons and Piller (2015) describe as a negative, attitude-based bias towards knowledge from an external source. In addition to such biases, large corporations are tied to their existing resources. However, Anokhin, Wincent and Frishammar (2011) challenged the traditional resource-based approach to focus on core activities of the firm by introducing the concept of misfit technology. Misfit technologies are patents, knowledge or intellectual property that do not necessarily align with the company's business model nor provide clearly recognizable benefits (Anokhin et al. 2011). Nevertheless, Mocker, Bielli and Haley (2015) suggest that large corporations should work with startups either to rejuvenate the corporate culture, to communicate organizational innovativeness, solve business problems or to expand to new business areas.

2.1.3. Intermediaries between startups and large corporations

The literature identifies several ways to organize a startup-corporation relationship. Often the type of engagement is chosen by the level of involvement or the specified needs and requirements of the parties guide to a certain relationship type. Table 2 summarizes the common types of engagement between startups and corporations to hackathons, proof-of-concepts, co-working spaces, incubators, accelerators, corporate venture capital, acqui-hire and mergers and acquisitions.

Table 2. Types of startup-corporation engagements.

Type of engagement	Definition	Authors
Hackathon	A one-off event for either individuals or teams to engage in collaborative idea development. The focus can be in solving a specific technical or business problem or producing a piece of code.	Mocker et al. (2015), Oxford Dictionary (2019)
Proof-of-Concept	Evidence, typically deriving from an experiment or pilot project, which demonstrates that a design concept, business proposal, etc. is feasible.	Oxford Dictionary (2019)
Co-working space	A flexible office or other working environment with leasing terms tailored for startups.	Mocker et al. (2015), Oxford Dictionary (2019)
Incubator	A flexible working space with support services, such as legal and marketing.	Mocker et al. (2015), Oxford Dictionary (2019)
Accelerator	A program that offers time-limited support to aid the rapid growth of selected startups in exchange for equity.	Bliemel et al. (2019), Pauwels et al. (2016), Hochberg (2016)
Procurement contracts	**A** way to establish customer-supplier relationship and gain access to new technologies.	Mocker et al. (2015)

Corporate venture capital	Equity investment by large corporations in entrepreneurial ventures that originate outside the corporation and where substantial element of risk exist.	Napp & Minshall (2011), Oxford Dictionary (2019)
Alliance	Type of relationship with mutual interests and shared goals.	Graebner et al. (2018), Chen & Chen (2002)
Joint venture	A commercial enterprise undertaken jointly by two or more parties which otherwise retain their distinct identities.	Oxford Dictionary (2019)
Acqui-hire	An aquiring practice, where a company is being bought primarily for its skills and expertise, rather than for the products or services it supplies.	Mocker et al. (2015), Oxford Dictionary (2019)
M**&A**	An acquiring practice of large corporation to acquire to improve knowledge and internal processes.	Kale & Singh (2009)

As shown in table 2, the array of different types of engagements between startups and large corporations is wide and scattered. Some types need more equity from the corporation, whereas others require less financing but more time and facilitation from the internal experts. (World Economic Forum 2018.) The level of governance is one distinctive factor between the collaboration models. It refers to the legal and social control systems that are designed to for example coordinate resource contributions to the relationship. Another factor is the interaction with the market. (Todeva & Knoke 2005: 125.)

Further, Chesbrough and Brunswicker (2013) linked these various engagement types to open innovation and portray them in a matrix of knowledge flow and financial compensation. As illustrated in figure 6, methods such as corporate

venture capital, internal incubators, strategic alliances, joint ventures, spinoffs and spinouts are used to maintain a connection to the agile and rapid startup culture (Spender et al. 2017).

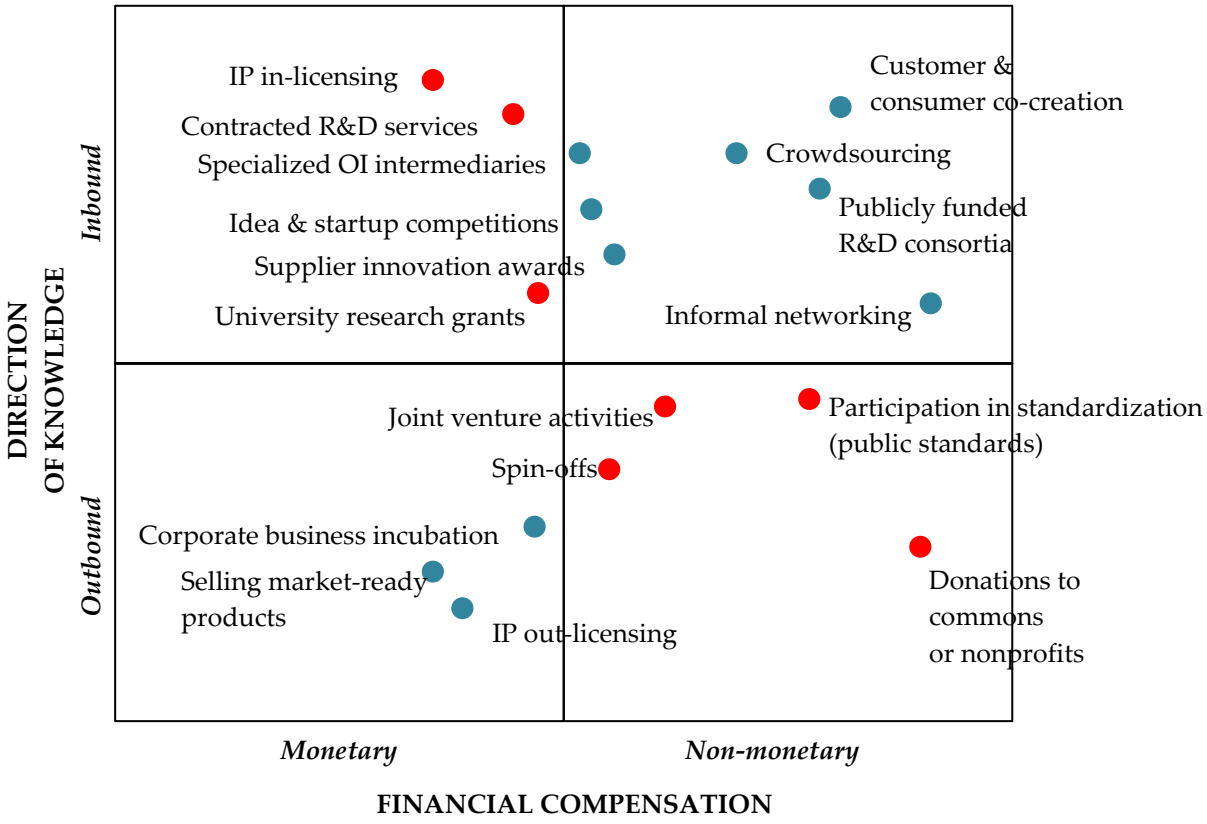


Figure 6. Startup-corporation open innovation models (Chesbrough & Brunswicker 2013).

Above all, startups and large corporations form an asymmetric relationship where significant differences in size, resources and experience exist between partners (Hogenhuis, Van Den Hende & Hultink 2017; Minshall et al. 2010). Asymmetries arise from factors such as size, resources, market access, information availability,

geographical location and business relationships itself (Singh, Baird & Mathiassen 2018) and eventually, may drive the parties apart. These differences may cause relationship gaps, which arise when the interests of the parties in the relationship do not match. Thus, the management of these gaps entails generating minor or major changes to the on-going relationship, forcing the counterparty to adapt accordingly or terminating the relationship. (Nordin & Ravald 2016.) Hogenhuis et al. (2017) suggest that thorough preparation for potential problems during an asymmetric relationship may harness the success of this kind of partnership. Additionally, they highlight the importance of communication towards startups.

From startups perspective moving forward to build a relationship with a significantly larger company has challenges and the asymmetries may result in establishing defence mechanisms. Katila, Rosenberger and Eisenhardt (2008) pointed out, that the new firms may defend against resource disputes by trade secrets and timing. To continue, large companies have a similar defence mechanism, such as patents. In addition to such mechanisms, managing trust between the parties is equally important. Stevens, MacDuffie and Helpe (2015) suggest applying *recalibration* as a process of smaller actions, which proactively aim to maintain trust at its optimal level. They also argue that significant structural changes are not necessarily required in the relationship if a proactive approach of recalibration is taken.

2.2. Value co-creation and co-production

Value co-creation is a set of joint activities by parties cooperating directly together to create the value for either parties (Grönroos 2012). These parties may be customers and service providers (Lombardo & Cabiddu 2017), suppliers (Kohtamäki & Rajala 2016) or other customers (Prahalad and Ramaswamy 2004). Besides the distinction of the parties, value co-creation takes an involving perspective, where customers and suppliers are not set facing each other, but interact together to create value (Grönroos & Ravald 2011), develop new business opportunities (Galvagno & Dalli 2014) and generate customer experiences (Kohtamäki and Rajala 2016).

2.2.1. Background and antecedents

Traditional goods-dominant logic (G-D logic) perceives firm value through products, and market price or the customer willingness to pay are measurements of value according to this logic. This perspective intends to maximize production control and efficiency to maximize profit. (Vargo & Lusch 2004a.) As the global economy moved away from consuming solely products and goods to services, this shifted attention challenged the G-D logic. Moreover, the G-D logic for economic activities become outdated as Vargo and Lusch (2004b) introduced the service-dominant logic (S-D logic) to respond to the traditional view to physical goods being solely the subject of exchange between the company and its customers.

Table 3. Comparison of G-D and S-D logics (adapted from Vargo & Lusch 2008).

Element	G-D logic	S-D logic
Value driver	Value-in-exchange	Value-in-use or value-in-context
Creator of value	Firm and supply chain firms	The firm, network partners and customers
Process of value creation	Firms embed value in goods or services in addition to adding value by enhancing or increasing attributes	Firms propose value through market offerings and customers continue value creation through the use
Purpose of value	Increase wealth for the firm	Increase adaptability, survivability and system wellbeing through service of others
Measurement of value	The amount of nominal value, price	The adaptability and survivability of the beneficiary system
Used resources	Operational resources	Operational resources
Role of the firm	Produce and distribute value	Propose and co-create value, provide service
Role of goods	Units of output, operational resources that are embedded with value	Enable access to benefits of firm competences
Role of customer	To use or destroy value created by the firm	Co-create value through the integration of a firm's resources and other private or public resources

As shown in table 3, these two logics are mostly opposites of each other. Services differ from goods due to their nature of intangible, inseparability, heterogeneity and perishability (Vargo & Lusch 2004). Thus, service is the basis for exchanging competencies such as knowledge and skills, to benefit one party or another (Vargo & Lusch 2008).

Value co-creation is a relatively new paradigm within the management literature extending to the early 2000s (Galvagno & Dalli 2014; Vargo & Lusch 2008). Vargo and Lusch (2008) introduced the foundational premises for value co-creation in their research on S-D logic and summarized the key elements to ten descriptive themes (table 4).

Table 4. The foundational premises of S-D logic (Vargo & Lusch 2008).

FPs	Foundational premise
FP1	Service is the fundamental basis of exchange.
FP2	Indirect exchange masks the fundamental basis of exchange.
FP3	Goods are a distribution mechanism for service provision.
FP4	Operant resources are the fundamental source of competitive advantage.
FP5	All economies are service economies.
FP6	The customer is always co-creator of value.
FP7	The enterprise can not deliver value but only offer value propositions.
FP8	A service-centred view is inherently customer-oriented and relational.
FP9	All social and economic actors are resource integrators.
FP10	Value is always uniquely and phenomenologically determined by the beneficiary

Further, Grönroos and Helle (2010) specified prerequisites for value co-creation by viewing it from both supplier and customer perspectives. From a supplier's perspective, an understanding of customer's business process and relevant practices supports the process of value co-creation. Additionally, Grönroos and Helle (2010) identify that the attitudes of the supplier and its employees towards the customer and their willingness to communicate with the customer are necessities for value co-

creation. On the other hand, the customer must also understand the supplier's business logic and hold a willingness to match practices with the supplier's practices. (Grönroos & Helle 2010.) Moreover, Murthy, Padhi, Gupta, and Kapil (2016) specified that strategic intent, alliance relationship, service actualization, and intrapreneurship assist in establishing a co-creative relationship between relationship actors.

Given the above, services offer a new perspective to business logic (Grönroos & Voima 2013: Grönroos & Ravald 2011). Since the introduction of S-D logic, value co-creation has derived compelling interest among scholars and it is connected to themes such as sustainability (Lacoste 2015) and innovation (Frow et al. 2015). Nevertheless, the broadness and novelty of value co-creation in academic research, several studies have aimed to compile the theme by the means of systematic literature review.

For example, Galvagno and Dalli (2014) identified that value co-creation theory is represented in service sciences, innovation and technology management studies and in marketing and consumer research (figure 7). The service science perspective to value co-creation relates strongly to service-dominant logic (Vargo & Lusch 2004b), which portrayed companies focus on their offerings that they offer to their customers. Innovation approach to value co-creation grounds from processes and structures (Payne, Storbacka & Frow 2008; Aarikka-Stenroos & Jaakkola 2012). Additionally, marketing and consumer perspective focus on the customer's role and involvement in co-creation (Prahalad & Ramaswamy 2000). Despite this triangulation, Galvagno and Dalli (2014) notified that each perspective is strongly

tied to another thus providing a thorough theoretical perspective to value co-creation.

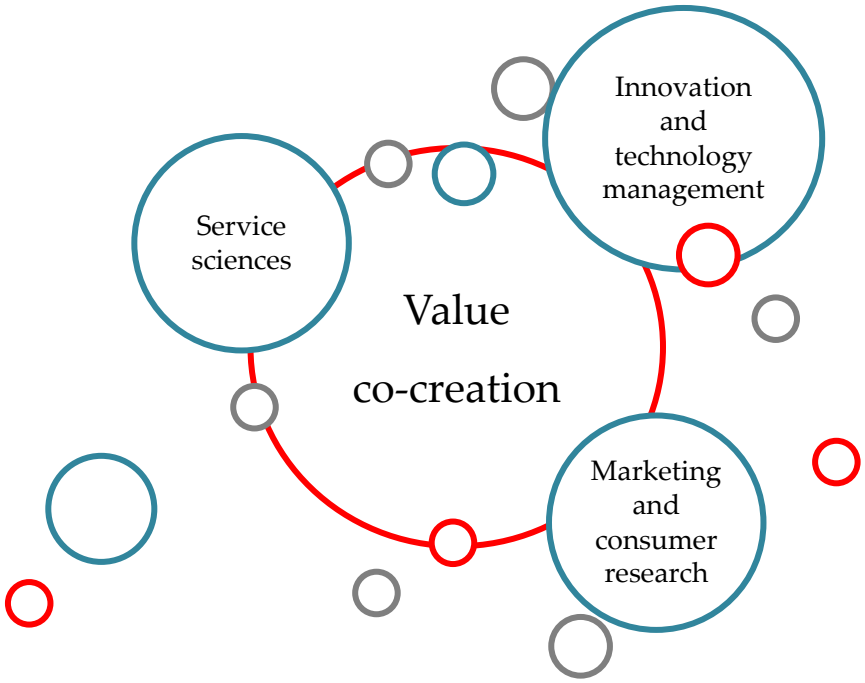


Figure 7. Theoretical perspectives to value co-creation (adapted from Galvagno & Dalli 2014).

Taking notion of these theoretical backgrounds, this chapter moves forward to further define value co-creation and co-production yet emphasizing the antecedents for these theories. Moreover, the following sections of this literature review are composed to match the above-mentioned triangulation by Galvagno and Dalli (2014). This design is pursued not only to bring clarity to the chapter, but also to accompany the commonly identified thematic order.

2.2.2. Defining value co-creation and co-production

The prior scholars relate value to the utility a product provides (Zeithaml 1988) or to the amount customers are willing to pay (Porter 1985). On the contrary, the recent S-D logic perspective interprets value through value-in-use. Vargo and Lusch (2006) identified that value-in-use is created when the supplier offering is used by the customer. To clarify, value is created by the user either individually or socially, during the usage of resources and processes. Thus, the potential value generated by the supplier is later materialized into real value by the customer (Grönroos & Voima 2013). Although scholars have made progress in increasing academic knowledge on value co-creation, misperceptions are still raised on how and to who value-in-use is created (Grönroos & Ravald 2011; Grönroos & Voima 2013).

While value-in-use highlights the customer's role in value co-creation, also value propositions are in a key role in defining a product or service from the supplier's side. Value propositions are a tool to involve the parties to value co-creation activities to evaluate the uniqueness and advantages of a service (Lombardo & Cabiddu 2017). Anderson, Narus, and Rossum (2006) identified three kinds of value propositions. First, the value proposition may be a listing to justify the benefits of a market offering. Second, value proposition may be constructed to highlight the comparison to competitor's offering, to make a favourable differentiation. Thirdly, value proposition may concentrate on solely one or two benefits of the offering to resonate focus. Thus, value propositions must be distinctive, measurable and sustainable Anderson et al. (2006).

To continue, Lusch and Vargo (2006) defined two components for value co-creation. The first component is the *co-creation of value*, which highlights that value is created and determined by the user during the consumption process, occurring over time between the customer and supplier. The second component is the *co-production of value*, which involves the participation of offering creation via shared inventiveness, co-design or shared production. Hence, the interactions between the customer and the supplier act as a platform for value co-creation (Grönroos & Voima 2013).

Similarly, Kohtamäki and Rajala (2016) make a clear distinction between value co-creation and value co-production. According to them, value co-creation relates to value-in-use and to the individually specified conceptions of value. Thus, the experiences related to value matter more in value co-creation. To continue, value co-production forms linkages to value propositions and their collaborative development, referring mainly to the exchanging nature of value. (Kohtamäki & Rajala 2016.)

Moreover, Terblanche (2014) adds that value co-production is separate, yet interrelated, a concept with value co-creation. However, co-production is part of value co-creation including customers' or other stakeholders' collaboration to generate an offering. Further, co-production requires joint inventiveness, joint production, and co-design (Terblanche 2014). Kohtamäki and Rajala (2016) also support this view; value coproduction is a sub-process within value co-creation.

Table 5. Key definitions.

Concept	Definition	Author
value	"the consumer's overall assessment of the utility of a product based on a perception of what is received and what is given"	Zeithaml (1988)
	"what customers are willing to pay"	Porter (1985)
value-in-use	"there is no value until an offering is used"	Vargo & Lusch (2006)
value proposition	"a tool to involve the parties to value co-creation activities to evaluate the uniqueness and advantages of a service"	Lombardo & Carbiddu (2017)
value co-production	"customers' or other stakeholders' cooperation in creating the core offering"	Terblanche (2014)
	"the process by which the actors contribute to the collaborative development of a value proposition"	Kohtamäki & Rajala (2016)
value co-creation	"joint activities by parties involved in direct interactions, aiming to contribute to the value that emerges for one or both parties"	Grönroos (2012)
	"a joint value creation process, which requires the simultaneous presence of both customer and supplier"	Grönroos (2011a)

2.2.3. Processes and structures in value co-creation and co-production

Several scholars have taken a process view on value co-creation and co-production (Payne et al. 2008; Aarikka-Stenroos & Jaakkola, 2012). Payne et al. (2008) argue that the more customer understands the variety of available opportunities, the more value can be created. Thus, value co-creation process (figure 8) is a combination of activities performed by the customer to achieve a specified goal. Therefore, it is a

dynamic, interactive, non-linear and an unconscious process (Payne et al. 2008). Additionally, the supplier must understand the customer's value creation processes. This encourages the supplier to design its own processes to match with customer's processes. To continue, the encounter processes represent the two-way interactions between the customer and the supplier. (Payne et al. 2008.)

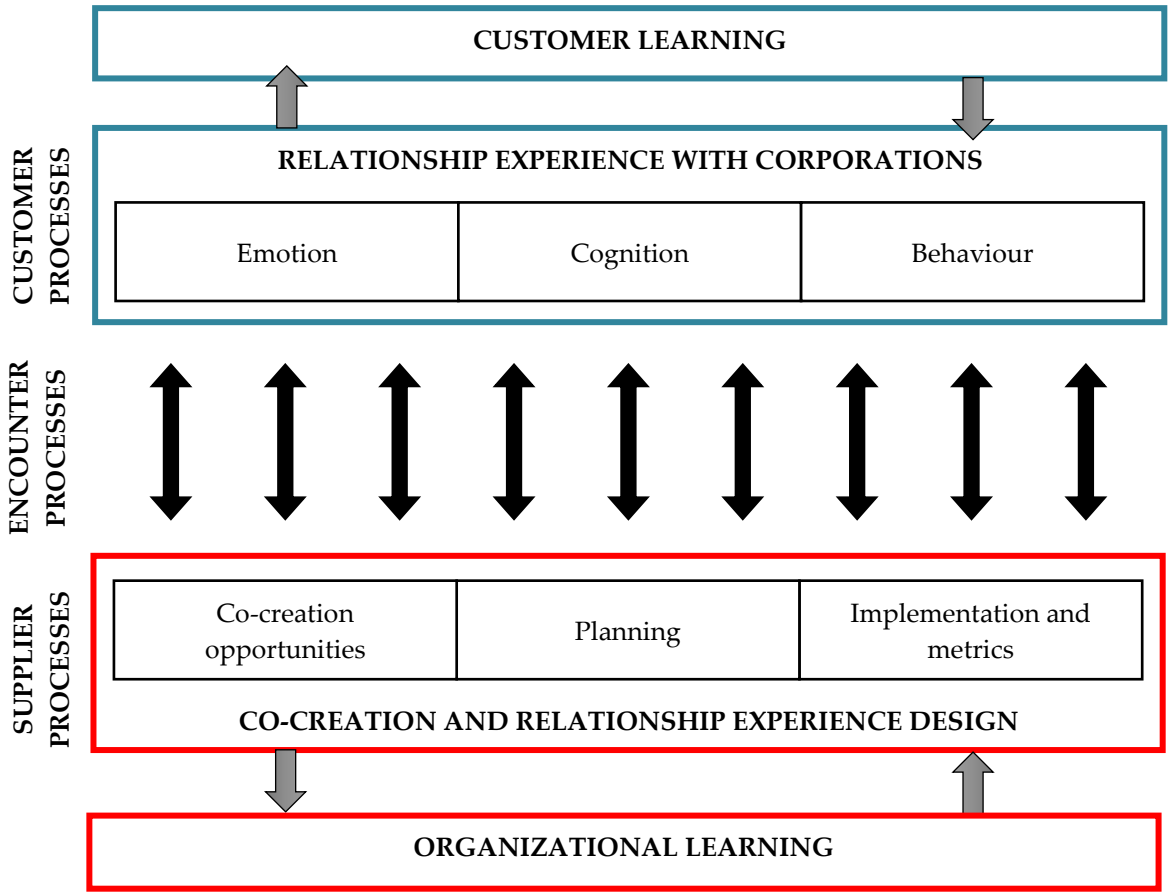


Figure 8. Value co-creation process between customer and supplier (adapted from Payne et al. 2008).

Equally, Aarikka-Stenroos and Jaakkola (2012) theorized value co-creation as a joint problem-solving process, which integrates both customer and supplier resources into optimal value-in-use. They argue that problem identification, crafting a suitable solution and thorough implementation will result in value-in-use. To continue, Grönroos and Voima (2013) take a sphere perspective to value co-creation and analyse it as an interactive and joint process between customer and provider. Figure 9 summarizes these views to emphasize the similarities in the value co-creation process.

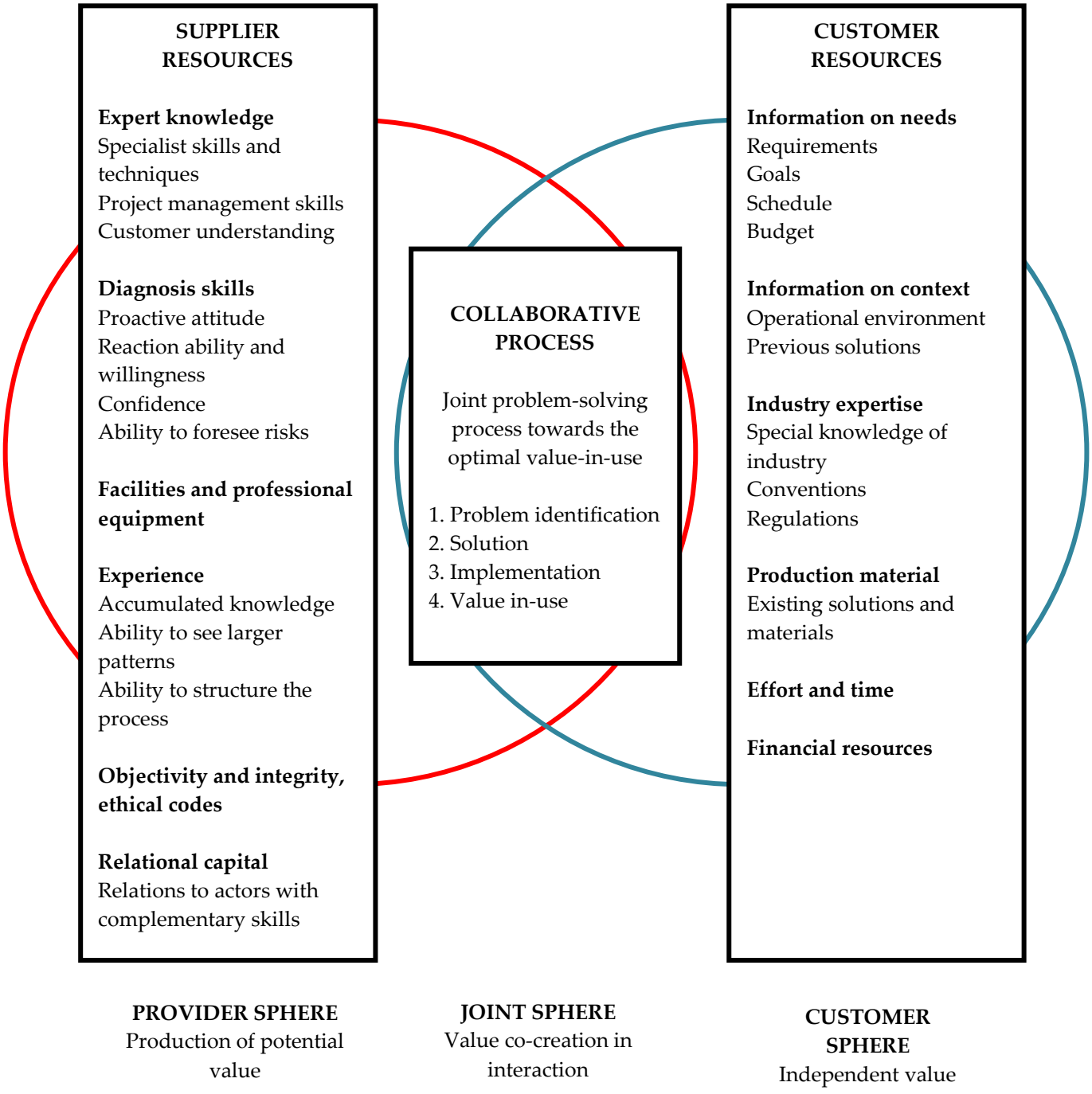


Figure 9. Value co-creation process between customer and supplier (adapted from Aarikka-Stenroos & Jaakkola 2012; Grönroos & Voima 2013).

Despite this duality among the customer and the supplier, it is the customer who is the co-creator of value in a business relationship. (Grönroos 2011; Payne, Storbacka & Frow 2008). This role is often two-sided. The customer acts as an active value creator but also interprets the experiences during service delivery. Value is created once the customer uses the product or service (value-in-use) and therefore it is the customer who defies is value created or not. (Vargo & Lusch 2004.) Moreover, the customer is an active player instead of being a passive participant (Prahalad & Ramaswamy 2000).

Even so, in can be concluded that the customer and the supplier create value jointly. This requires the supplier to thrive to understand the customer's value creation process and provide the customer with the resources to support value co-creation. On the other hand, the customer has own responsibilities in value co-creation, since the value is defined in customer's use. In addition to this mutuality, value creation ought to be beneficial not only the customer but also the supplier. (Grönroos & Ravald 2011.) As value is created in interactions, it offers the parties an opportunity to influence one another (Lombardo & Cabiddu 2017).

2.2.4. Relational perspectives to value co-creation and co-production

As business relationships build on value exchange, both economic and social value exchange should be considered when observing the value in business relationships (Kohtamäki & Rajala 2016). Companies thrive to become a more proactive actor in their market, which requires suppliers to actively develop ways to create new customer value, whilst they may drift apart from their markets. (Berghman,

Matthyssens & Vandenbempt 2006.) However, Mustak, Jaakkola and Halinen (2013) identified that B2B co-creation occurs usually in vertical streams, between providers and customers, but also horizontal co-creation could be an option.

Despite this notion on market competitiveness, value co-creation literature has focused on the individual-organization level, as illustrated above. Hence, scarcity exists among the value co-creation literature focusing on the business-to-business (B2B) relationships (Lambert & Enz 2012). Lambert and Enz (2012) studied co-creation in business-to-business (B2B) relationships and, how cross-functional involvement enables value co-creation. They defined cross-functional involvement as a combination of the resources of two firms.

In addition to combining resources for value co-creation, Lambert and Enz (2012) phrased that successful business relationships depend on the alignment of expectations. Thus, if large corporations aim to succeed in collaborating with startups they must identify their expectations. Additionally, Kohler (2016) identified that once corporations have defined their objectives for collaboration, they need to search for ways to foster startups expectations. Expectations are anticipations of future consequences which base on prior experiences, current circumstances, or other sources of information (Oliver 2010: 63). Expectations are viewed as a prerequisite to the perceived service quality and satisfaction (Ojasalo 2001).

Figure 10 identifies the three types of expectations that Ojasalo (2001) recognized in professional service context: fuzzy, implicit and unrealistic. *Fuzzy expectations* categorize the ideas and feelings that are not materialized easily. Hence, a certain

level of uncertainty or inexactness is present in such expectations. *Implicit expectations* form a collection of self-evident characteristics that are assumed to be included in the service. Thus, these expectations become apparent when they are not met and additionally cause negative feelings. *Unrealistic expectations* are expectations that are impossible or highly unlikely to meet and may link to problem definition or solution design. (Ojasalo 2001.)

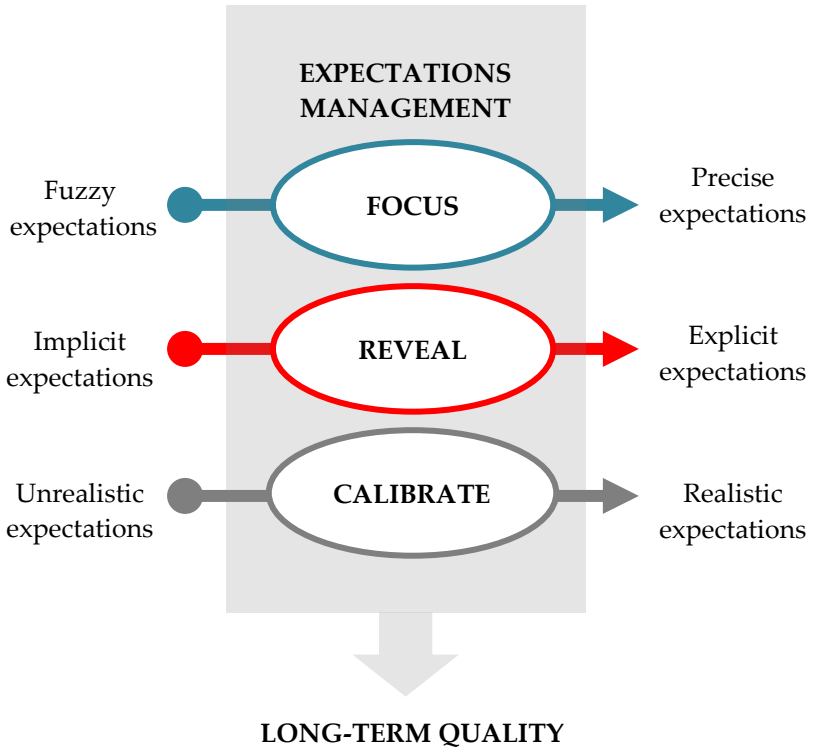


Figure 10. Framework for managing customer expectations (adapted from Ojasalo 2001).

Consequently, Ojasalo (2001) offers an approach to managing these expectations aiming towards long-term service quality. Fuzzy expectations can be turned to precise expectations by *focusing* them better through continuous systematic analysis

of the perceived expectations. Implicit expectations should be *revealed* beforehand to change them to explicit expectations, which prevent undesirable consequences within the relationship. Additionally, unrealistic expectations must be *calibrated* to realistic ones to favour suitable goal setting for the relationship (figure 10).

2.3. Value co-creation and co-production in startup-corporation relationships: understanding startup expectations

As mentioned, the literature identifies several types of engagement between startups and large corporations, which may be evaluated for example by the level of involvement and by financial compensation (Chesbrough & Brunswicker 2013). Additionally, aligned with O'Brien (2014: 33), the startup-corporation relationship varies between a form of cooperation and collaboration. However, several asymmetries (Hogenhuis et al. 2017; Minshall et al. 2010) may cause collaboration barriers between the two parties. Certainly, bridges are built between startups and large corporations to facilitate the relationship. For example, the different forms of engagement may enable the startup's initial access to the large corporation's core business (table 2).

Large corporations can contribute to the value creation process by interacting and engaging with the startup in a joint sphere (Aarikka-Stenroos & Jaakkola 2012) and that process is depicted as value co-creation. In other words, co-creation consists of direct interactions (Grönroos 2012). Additionally, the actors, such as a startup and a large corporation, engage through these interactions and create value together. (Grönroos & Gummerus 2014.)

Therefore, this study applies the theory of value co-creation and co-production as a joint process between startup and corporation in which both parties integrate their resources, such as skills and knowledge, to deliver long-term relationship quality. The proposed conceptual framework (figure 11) is based on the value co-creation process (Payne et al. 2008) and the joint problem-solving process (Aarikka-Stenroos & Jaakkola 2012), where resources from both startup and corporation side are first combined to facilitate value co-creation and co-production. In addition to these theoretical concepts, a further lens is needed to bring light to the underlying expectations in a startup-corporation relationship. Thus, Ojasalo's (2001) framework is adopted to describe the expectation categories and how they ought to be understood to deliver long-term quality in the startup-corporation relationship.

Moreover, large corporation facilitates the co-creation process by providing the co-creation opportunities, planning the process and implementing value co-creation with appropriate metrics (Payne et al. 2008). However, in addition to the emotional, cognitional and behavioural characteristics of the startup's relationship experience, this study suggests adding expectations as the fourth characteristic to thoroughly investigate the startups' expectations. To summarize, the theoretical framework supports and enhances the objective of this study to give a comprehensive understanding of value co-creation and co-production in startup-corporation relationships. Further, this framework is tested in the empirical part of this study.

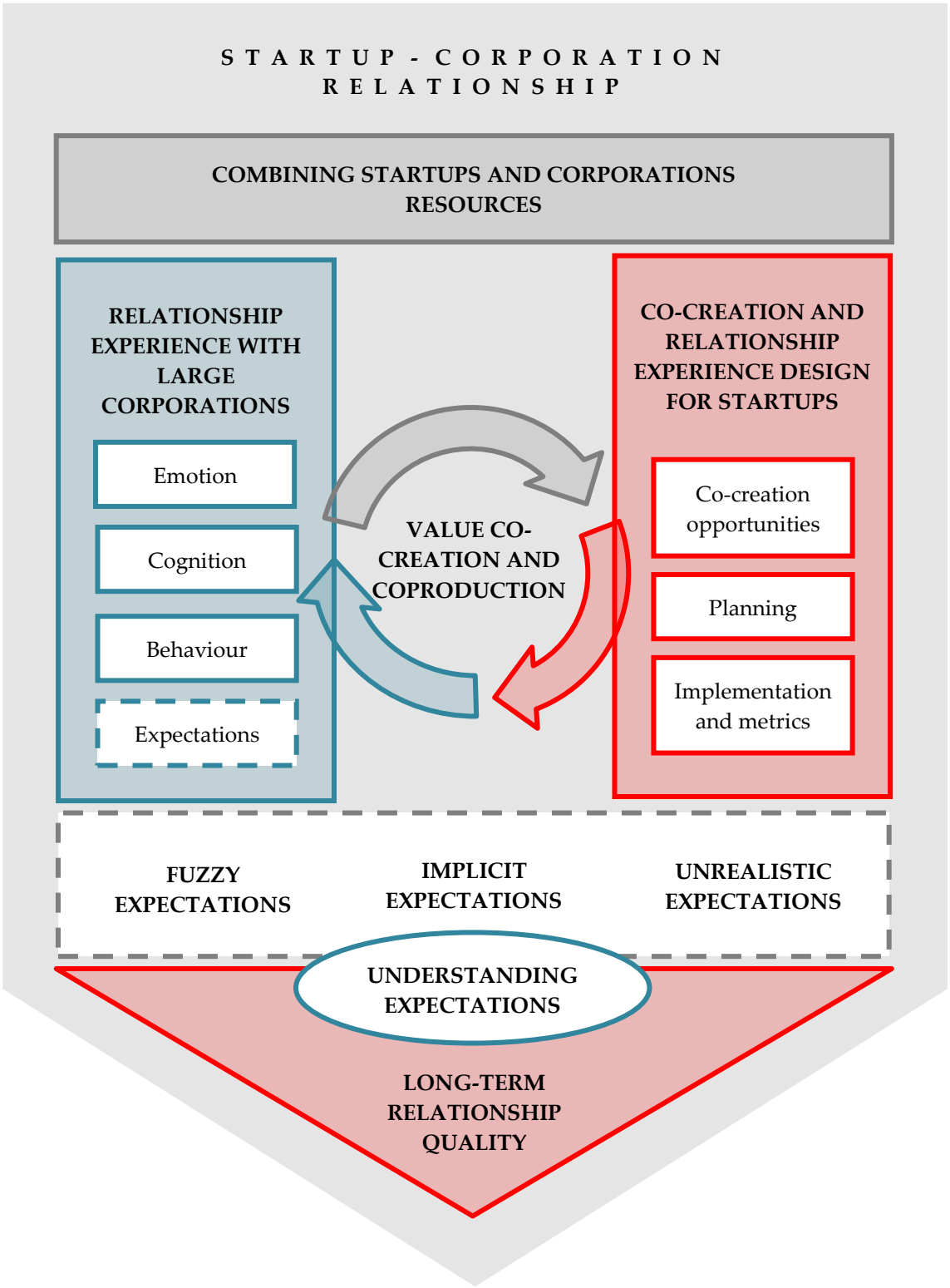


Figure 11. The theoretical framework of the study.

3. METHODOLOGY

This chapter provides an overview of the methodological choices for this study. The philosophical assumptions common in business and management research are first introduced, followed by research method and strategy. The case selection process is described to give an overview of the case. Additionally, the Gioia data analysis method is described. Finally, justifications for the validity and reliability of this study are discussed. The research onion summarizes methodological choices (figure 12).

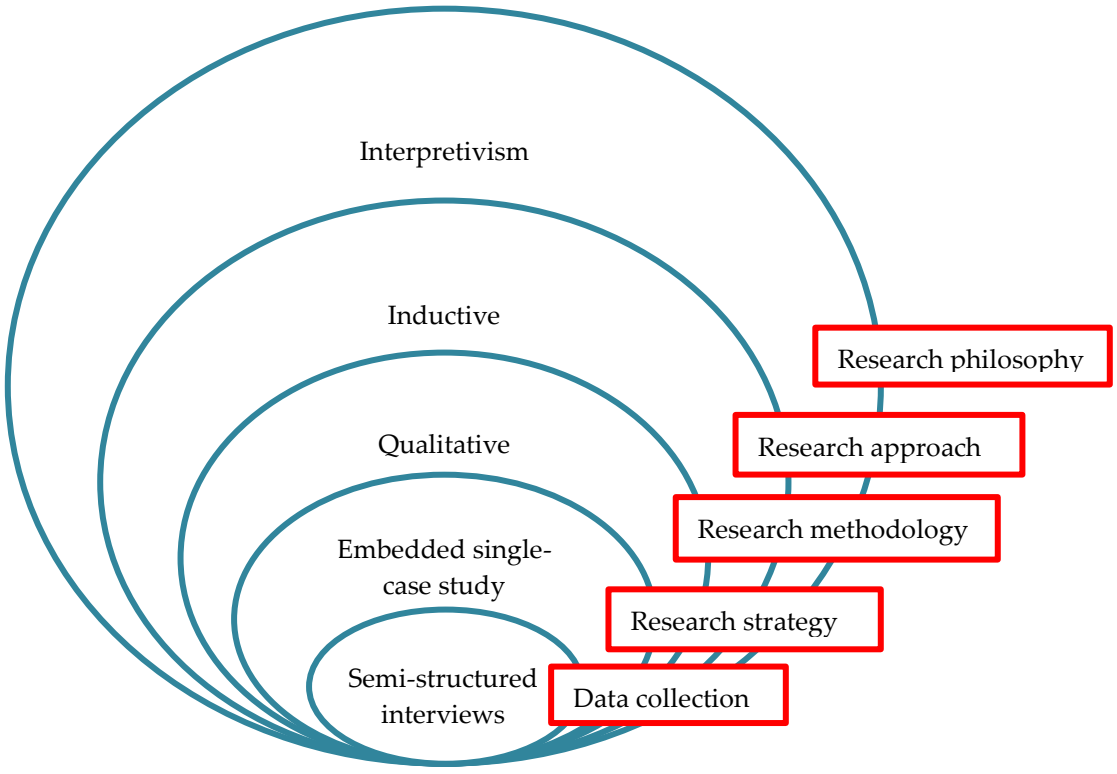


Figure 12. The research onion (adapted from Saunders, Lewis, and Thornhill 2016: 164).

3.1. Philosophical assumptions

According to Saunders, Lewis & Thornhill (2016: 135–144), business and management research acknowledge five different philosophies that guide the research: positivism, critical realism, interpretivism, postmodernism and pragmatism. This study applies primarily the research philosophy of *interpretivism* since it aims to contribute to the startup-corporation relationship research by providing new understandings through investigating startups expectations. Therefore, the researcher interpretations are in a key role to the contribution of the study. (Saunders et al. 2016: 140–41.)

Mapping the interpretations was possible since the researcher was employed by the case company during the time of the study, thus working under potential exposure of subjective views. Noting that employment may influence the interpretations negatively and generate unintended biases, a high level of objectivity was strictly maintained throughout the study in order to reach high research quality. (Saunders et al. 2016: 140–41.)

Besides an interpretative philosophical approach, other approaches may be distinguished as well. The explanatory nature to rationalize the startup-corporation relationship supports the aspects of *critical realism* (Easton 2010; Saunders et al. 2016: 138–39). In fact, the intention to generalize the startup's expectations to more understandable categories indicates some attributes of *positivism* (Eriksson & Kovalainen 2016; Saunders et al. 2016).

Further, due to the power asymmetry between startups and large corporations (Minshall et al. 2010), features of *postmodernism* philosophy can be distinguished from this study, since it highlights the role of language and power relations in research by questioning the accepted ways of thinking (Eriksson & Kovalainen 2016: 22; Saunders et al. 2016: 141–42). Aligned with this philosophy, the researcher aims to investigate the expectations of startups which may occasionally be overlooked due to the dominance of a large corporation.

3.2. Research method and approach

Research may align either quantitative or qualitative logic. To continue, qualitative research may follow three different logics: deduction, induction or abduction. *A deductive approach* to research builds up from the theoretical base since here theory is the primary source of knowledge. Here, the theoretical hypotheses are imposed on the empirical study. (Eriksson & Kovalainen 2016: 23–24.) Often business studies argue against the deductive approach, since the theories may reflect the outcomes of the empirical research, not the other way around. Therefore, a reverse logic of *inductive approach* is another common research method. (Eriksson & Kovalainen 2016: 23–24.)

While also a third logic of *abduction* may come in use when building the research iteratively from the deductive and inductive approaches (Eriksson & Kovalainen 2016: 24.), This study follows an inductive approach, since the research started from empirical material to theoretical results. Additionally, the data collection and analysis were conducted prior to the theory development. To conclude, strict use of

one specific logic occurs only on rare occasions since the researcher may require one or the other logic in different stages of the research.

3.3. Research strategy and design

The decision on research strategy is commonly linked to the plan on how the researcher aims to answer the chosen research questions. It links the philosophy to the choices of data collection and analysis. (Denzin & Lincoln 2018: 309–310.) Due to the nature of this study, the chosen strategy for this study is a case study since it may be applied to qualitative research (Saunders et al. 2016: 178). Hence, this study aims to provide holistic and in-depth knowledge of the phenomena of startup-corporation relationship (Eriksson & Kovalainen 2016: 131).

Moreover, case studies are used as a research method to understand real-life phenomena in relation to their context, when the boundaries between the phenomenon and its context are not distinctly apparent. They address actual managerial situations and hence are conducted in collaboration with the practitioners. Case studies can be divided into multiple- or single-case studies and additionally to holistic or embedded ones. Figure 13 visualizes the chosen research design for this study, the embedded single case study design. (Yin 2014: 15-17; Gibbert, Ruigrok & Wicki 2008.)

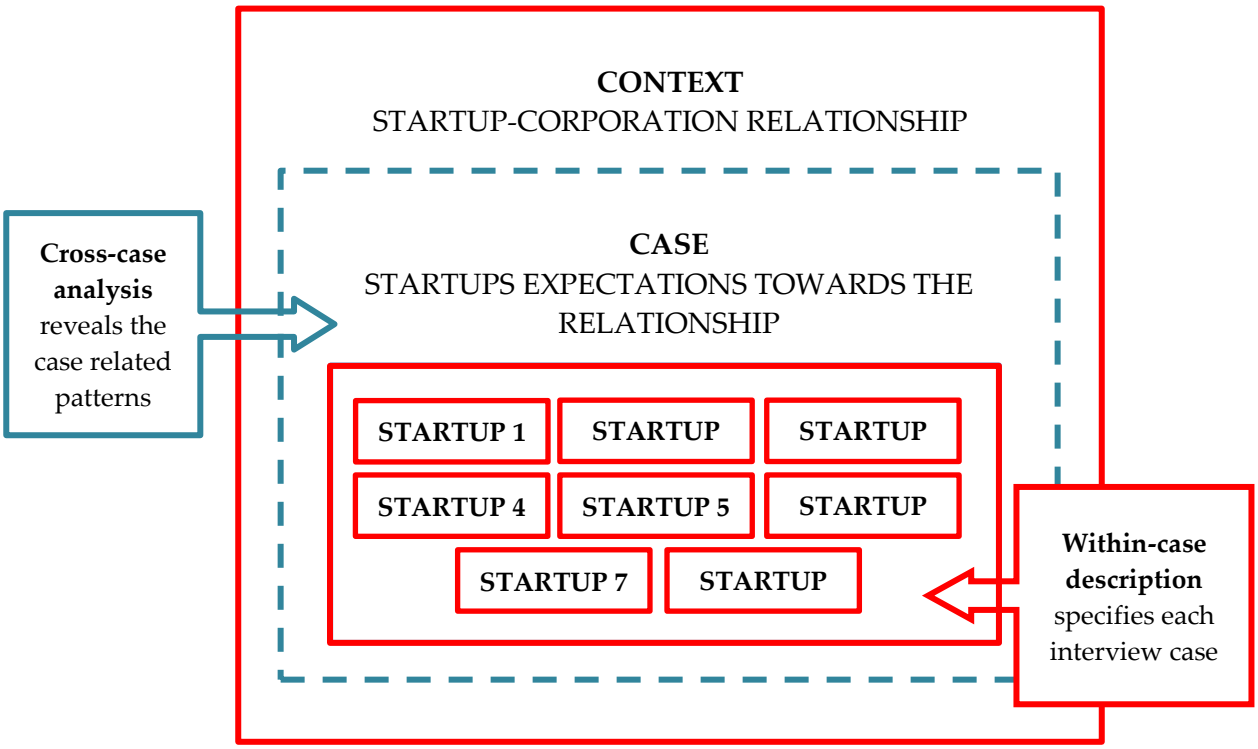


Figure 13. Research design – embedded single case study (adapted from Yin 2014: 50).

3.4. Case selection

The case company for this study operates in the industrial material handling industry. The company is a relatively large player in its operating market and has grown also through mergers and acquisitions. It has operations in every continent either in the form of service or office locations. While the case company has been operating for nearly three decades as an independent company, it has now reached a stage where innovations are also sought outside the organization boundaries. The case company aims to create traction towards startups with own startup

collaboration program but is additionally interested to find a scalable solution on how to onboard a startup to the organization.

The interviewees were selected in collaboration with the case company and a thorough case selection process was followed to conduct an embedded single case study. First, a primary criterion guiding the final decision on the selected startups was the maturity of the startups. In other words, the selected startups should be seeking product-market fit for their existing offering. Second, the geographical location was narrowed down to Europe to obtain similar business practices. The third criterion the selected startups should operate within the industrial segment as the case company. The final argument to choose the startups for this study was the prior, current or potential collaboration with the case company. Thus, eight startups were chosen among a pool of relevant startups. Due to the possibility of response bias during the interview (Yin 2014: 106), the origin of the selected startups is illustrated in figure 14.

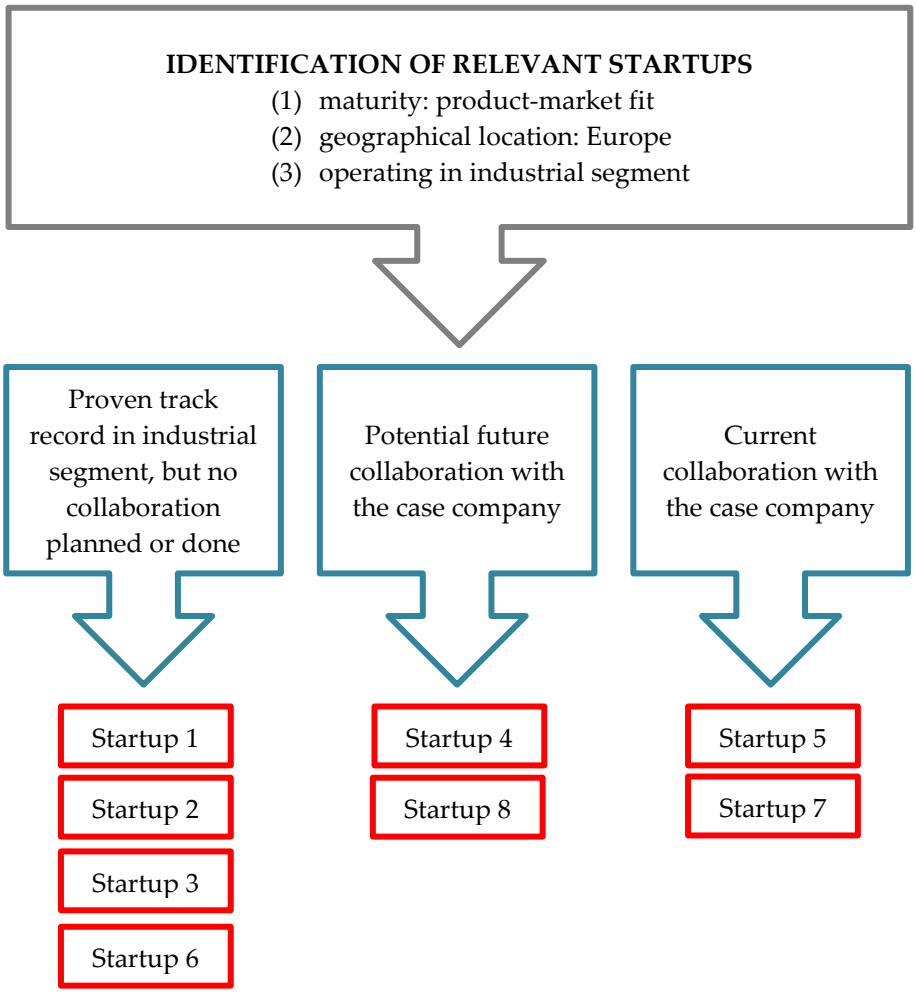


Figure 14. Case selection process.

3.5. Data collection

Three principles of data collection were followed to ensure quality control in this study. First, interviews were used as the primary source of evidence and direct observations as the secondary source of evidence. This *multiple source of evidence* approach is utilized to strengthen the analysis. Secondly, to increase the reliability

of the study, a *case study database* was created by organizing and documenting the raw interview data according to the Gioia methodology (Gioia et al. 2014). Thirdly, a *chain of evidence* was maintained by providing a logical pathway from an interview questionnaire towards the conclusions. Each observation was coded accordingly to show that certain research procedures were followed during the data collection. (Yin 2014: 118–128.)

Considering these data collection principles, it is essential to describe the interview process comprehensively, since they form the fundamental source of information for this study. The empirical data for this study was collected by conducting semi-structured interviews with the selected startup representatives. This type of interview structure is used to reach both retrospective and current observations of the interviewee on the phenomenon (Gioia, Corley & Hamilton 2014: 19). Table 6 gives an overview of these interview cases. Since this study aligns with inductive research approach, the interview questionnaire (appendix 1) was moderated slightly in the course of the interviews if it ensured proper data collection. The interviews length varied, but on average they lasted 60 minutes, and were organized via Skype call or at interviewee's premises. Each interview was also recorded and held in a conversational matter, and the interview recordings were later transcribed accordingly. The interviewer took notes during the interviews to gather material for the secondary source of evidence. (Yin 2014: 110-111.)

Table 6. Summary of the interviews.

Startup	Interviewee	Description of the company	Stage	Context	Language	Duration
1	SVP, GM EMEA and ASIA	Industrial large-scale IoT applications	Scaling	B2B	Finnish	1 h
2	COO	Ultrasound-based maintenance for industrial applications	Scaling	B2B	Finnish	1 h 25 min
3	CEO	Transportation optimization software for logistics applications	Scaling	B2B	Finnish	25 min
4	CEO	People and asset monitoring software	First revenue	B2B	English	41 min
5	Head of customer success	Product and object identification software	Going-to-market	B2B	English	44 min
6	VP Partnerships	Technical process enhancement for industrial application	Scaling	B2B	Finnish	1 h 12 min
7	Head of Growth	Optimization software provider for shipping applications	Going-to-market	B2B	English	1 h 18min
8	CEO	Commercial and professional uses of the AR cloud	Going-to-market	B2B	English	46 min

3.6. Data analysis

This study follows the Gioia methodology for qualitative data analysis. Figure 15 presents a sample of the data structure and how the analysis progressed from the

raw interview data towards the dimensions. First, the observations from the interviews provide evidence for descriptive first order categories. These categories are descriptions and arguments on the startup-corporation relationship, and together they form the embedded analysis for the whole case (Yin 2009: 46). Next, the categories were grouped according to their similarities and differences to second order themes. Finally, the themes were synthesized into dimensions, which are constructions for the main concepts and describe how the main concepts emerge from the interview data. (Gioia et al. 2014: 20.) Equally, Eisenhardt (1989: 541) highlights that cross-case research tactics, such as defining categories or dimensions from the data set or comparison of cases, promote an accurate and reliable fit between theory and data.

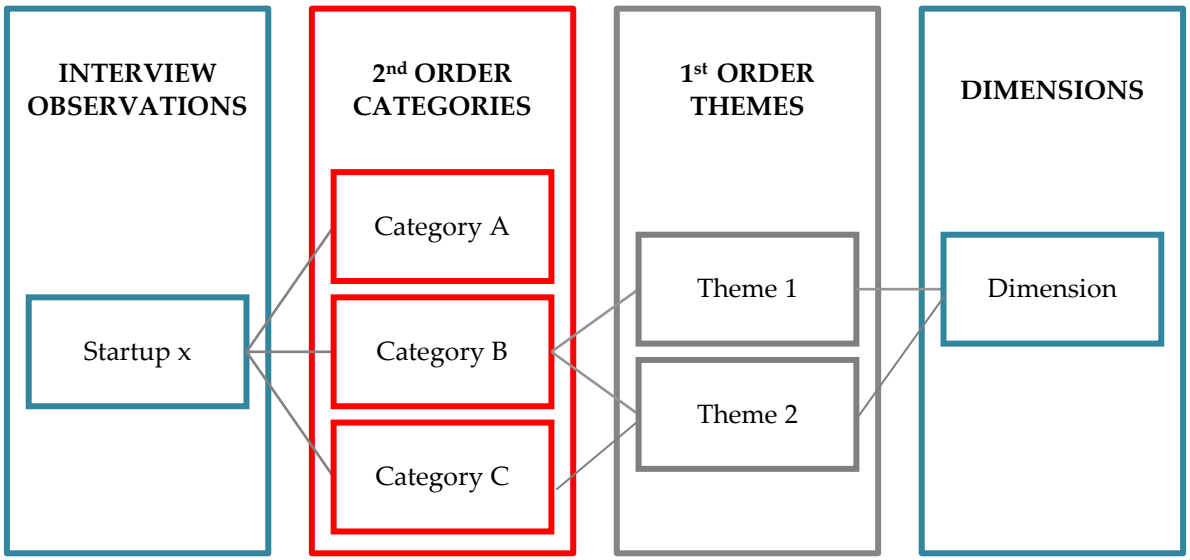


Figure 15. Sample of data structure (adapted from Gioia et al. 2014).

3.7. The trustworthiness of the study

The quality of the study is described through the validity and reliability of the study. The theories chosen for this study are retrieved primarily from academic journals to build both validity and reliability for this study and continuously to establish high-quality research. Table 7 presents the trustworthiness and the methodological accuracy of this study including a brief summary of how the quality is reached in this study. (Gibbert et al. 2008; Yin 2014: 40–45.)

Table 7. Trustworthiness and methodological accuracy of the study (adapted from Gibbert et al. 2008).

Internal validity	**Construct validity**	**External validity**	**Reliability**
The degree of causal relationship where one event leads to another. (Yin 2014).	The degree to which the study promotes a precise observation of reality. (Denzin & Lincoln 2018).	The degree to which findings can be generalized. (Bryman et al. 2015)	The degree of replication of the study. (Bryman et al. 2015).
1. Research frameworks synthesized from prior research.	**1.** Semi-structured interviews and participant observations were used during data collection as sources of evidence.	**1.** A cross-case analysis was conducted including all 8 startup cases.	**1.** The case study protocol is described in the methodology section of this study to ensure thorough documentation of the study.

2. Patterns were drawn between the existing theory and empirical findings during the data analysis.	**2.** Chain of evidence was established by coding the raw interview data when conducting data analysis by the Gioia method.	**2.** The rationale for the case study selection was to investigate B2B startups that have reached a certain maturity level and that operate in a similar field as the case company.	**2.** Semi-structured interviews were recorder and transcribed accordingly.
3. Causal linkages were composed aligned with the explanatory nature of the study.	**3.** The draft of the study was sent to both case company representatives and interviewees for observation.	**3.** The context of the study was additionally demonstrated and reasoned	**3.** Case study database was formed.
			
Bridging gaps between the existing theories and empirical findings	Providing high quality and objective judgements.	Building credibility in the study by explaining thoroughly the sample choices.	Minimizing errors and biases in the study.

4. FINDINGS

This chapter presents the main findings and outcomes of this study based on the semi-structured interviews and observations. First, the within-case description of each case is introduced to distinguish startups expectations. Next, the startup-corporation relationship is displayed through the relationship elements. Then, the value co-creation and co-production in such relationships is highlighted through the expectations. The analysis is enriched by the quotations of the interviewees to highlight the interplay between theory and practice. Finally, the empirically grounded theoretical framework on value co-creation and co-production in a startup-corporation relationship is presented and discussed.

Within-case description specifies each interview case to further distinguish the startups expectations and describe each case comprehensively (Yin 2014: 50). As mentioned, in a total of eight startup representatives were interviewed to conduct data collection for this study (table 6). Aligned with Ojasalo's (2001) framework, the expectations that emerged from the interviews were categorized to fuzzy, implicit and unrealistic expectations to illustrate this triangulation among the categories (table 8).

Fuzzy expectations consist mainly of goal alignment, structure and progress related whereas, market access, financials and the presence of key stakeholders seem to form the essential core for implicit expectations. Moreover, the considerable amount of implicit expectations may indicate that certain characteristics are already naturally expected by startups due to the previous experience of business

relationships. Further, unrealistic expectations link primarily to organizational speed and available communication tools.

Table 8. Within-case description.

Startup	Fuzzy expectations	Implicit expectations	Unrealistic expectations
1	Goal alignment, decision making, progress, resources	Key stakeholders, financials, references, problem-solving, processes	Operational speed
2	Trust, progress, goal alignment, IP exposure	Credibility, market access, scaling, open communication, financials	Operational speed
3	Decisions, goal alignment	Contracts, market access, financials, key stakeholders, scope	Operational speed
4	Progress, financials, decisions	Contracts, use case, key stakeholders, financials, market access	Operational speed, communication tools
5	Resources, decisions	References, key stakeholders, use case, financials, contracts	Operational speed
6	Structure, trust	Market access, credibility, use case, contracts, scaling, financials	Operational speed, communication tools
7	Goal alignment, structure, IP exposure, due diligence	Market access, feedback, financials, key stakeholders	Operational speed, communication tools
8	Goal alignment, resources, structure	Key stakeholders, credibility, scaling, financials, contracts	Operational speed

4.1. Startup-corporation relationships emerge despite asymmetries

Startups identified positive changes in the business world towards a more startup-friendly environment. This change in common mind-set also promotes collaborative activities among startups and corporations:

> *"I think during the last two-three years … the corporate world has completely changed and opened up to startups. This is pretty new. For example, the first startup I founded six years ago … corporations were like 'what startups, what budget, company that does not exist – forget it''. So this present mind-set was completely not there." (startup 8)*

Whereas there may be an increased recent interest from the corporations' side to collaborate with startups, also startups themselves are partnering up to create more appealing offerings to the market. Hence, startups see other startups more as peers rather than direct competitors:

> *"90% of the time startups are going after perhaps the same market but in a slightly different way, not as complete competitors. But that sort of potential to have complementary product offering [is appealing] rather than [acting as] direct competitors. So, it's more like sharing best practices and learning together." (startup 7)*

On the contrary, large corporations are constantly aware of their competitors' actions, hence face more limitations for example in terms of sharing information (Loebbecke et al. 2016). Therefore, the different startup programs are needed to translate this restriction of openness to structured and interesting collaboration opportunity for startups. However, startups often lack time and resources to participate to these programs, since they are not capable of tying down their limited

resources – it is always away from something else, or startups prioritize their resources to something else:

> *"Due to the prioritization reasons, we have not had the lane to [participate in the programs]. However, we have the principle that when things are done, they are done carefully. It then takes its own time if you participate in collaborative programs, so you must be able to release time and resources for it. And because of that [the participation] has not been possible." (startup 3)*

Despite the strong urge to optimize resources, startups truly value collaboration with large corporations and foresee the underlying potential:

> *"In a very close-knit collaboration with a startup and a big corporate, you are able to innovate very very quickly. When we first started building [our product], the company we were working with as a sort of innovation partner, we were absolutely staggered how quickly we could turn it around and we were just incredibly pleased with of how much feedback we were getting." (startup 7)*

> *"To me, a successful collaboration is always when the two parties spend as much time to validate or invalidate one or more use cases against the offering of a startup." (startup 4)*

However, in contrast to such an example of a well-balanced and innovative relationship between a startup and large corporation, startups additionally acknowledge that relationships with large corporations may have hurdles:

> *"I can think of a million more painless things to do during the day, than to go through some sort of difficult things [with corporations] where we naturally view the apple from other sides – one thinks it's red and the other thinks it's green." (startup 6)*

This indicates that trust is an important way of managing uncertainty in startup-corporation relationship as Bachmann and Inkpen (2011) suggested. Moreover, the reasons to collaborate and build a relationship rise from various opportunities in the form of intriguing startup programs and mutual interest. Additionally, there are differences regarding the life cycle of a relationship ranging from 2 months to 18 months. In the fastest engagements, the startup has often been the one on the driver's seat, pushing the progression of the relationship.

> *"The best result is achieved if we sit on the driver's seat - that here is a plan, these things are done at these stages ... if we trust the customer will do it, then they will not proceed." (startup 1)*

Thus, startups are bold. They aim to solve big business problems and have typically designed their core business around problem-solving. Hence, their way of working can be described as analytical and systematic, which additionally would be the perfect fit for large corporations. Therefore, startups expect a similar opportunity from corporations and aim to solve business problems as well:

> *"Small businesses truly see the opportunity that they can solve a problem from a big company. That is to me the genuine engineer-like problem-solving approach – like that we have a solution for that, we want to help you with that." (startup 1)*

But, this strong urge to innovate or solve complex business problems does not happen at the expense of startups losing the focus on the way:

> *"The main thing for us is to find new business opportunities. The kind that we cannot tap to with our own work, or it would be either technically or resource-wise impossible*

> *for us to reach. Or then we create a new and unique solution, which solves a customer problem. But all of these come down to the fact that it must be business" (startup 2)*

Nevertheless, new business opportunities with large corporations must be aligned with startups own goals. These goals are strongly customer and solution-oriented aiming to make the customer job less of a drag while including additionally a bigger commercial objective. In other words, anything that promotes the success of achieving the strategic goals of the startups is interesting when establishing a relationship. Above all, the goals must be aligned from the beginning of the relationship:

> *"The most important thing is when we start to collaborate, is to know what the common goal is…then you have the prerequisite to succeeding." (startup 1)*

Both startup and large corporation possess the resources useful for the other party (figure 11). As startups can utilize their scarce resources as efficient as possible, whereas corporations may possess a vast amount of different resources and employ them with a tentative manner. Howard (2014) rephrased it, the scale of effort must be matched between the organizations. Nevertheless, the interviewees emphasized that startups are the ones to adjust their resources and operations during the relationship and not the other way around. In addition, this is seen as a forced trade-off to work with corporations, since startups are the ones to adjust to the operational speed of the corporation:

> *"Big companies have the money…but the use of their own resourcing is less visible in their plans. And then, with a small company, it is kind of a daily struggle for that turnover… that… all the things that should be done should be profitable. That's the*

> *[case in a] big company too, but it is not as visible. They have existing revenue and it is easier to operate that way." (startup 1)*

> *"Such a small company, like we are, has no ability to know these [business practice] things or invest enough resources to make it to the right result. If you take that road, it is likely that 90% of those investments will be wasted, and 5% succeeds with a tremendous amount of luck." (startup 2)*

Thus, several startups agreed that they do not have enough resources to access the market on their own. Nevertheless, if the resources are successfully harmonized, the issue with organizational speed may occur next between startup and large corporation:

> *"…equally dangerous problem is speed. Corporations, for as long we think that large corporations are fast, are always significantly slower than what a startup needs." (startup 4)*

> *"…when we have a potential client to say to us, we want to work on something right away...generally speaking, and translated into corporate language it means either this quarter or the next quarter. And for us, it means today or tomorrow. The idea is to understand those speed differences." (startup 7)*

Therefore, this natural difference in operational speed may hinder the progression of the relationship. While startups may prefer an iterative way of working, the large corporation often waits for yet another approval from a higher level in the organization before proceeding further:

> *"We should agree together with the level we are satisfied for, that is what we are aiming for. In addition, it [requires] the iterative process and the milestones that [the state progress] can be quickly viewed. It does not have to be the perfect definition on*

> *the solution or otherwise bigger picture, [just] that what the goal was are going towards." (startup 1)*
>
> *"Startups can shift projects around with the team. I think for large corporations that would be a lot trickier and more difficult. Budgets are set, processes are set...and sometimes it takes...like four or five presentations for the large corporation to make a decision. If corporations want to introduce new things, new ways of thinking, I think they need to allow space for creativity. Quite a lot of them do not do that." (startup 5)*

However, if corporations are capable to operate at an exceptional speed, it provides them a significant competitive advantage against the other corporations:

> *"If it feels sort of right speed for the corporate then it is probably about right in terms of speed for the startup ... it's a massive competitive edge against all the other corporates out there, who are looking for the same sorts of collaboration." (startup 7)*

Although the goals and resources are aligned, relationships between startups and large corporations do not work without some form of financial transactions. Thus, expectations on financials and funding mechanisms were highly interesting for startups and issues related to financials were raised quite often during the interviews. Financials can mean either project-based funding, assurance of buying the developed technology solution or investments to the startup according to the interviewees. Especially project-based funding is considered crucial for startups, since their survival may be relied on it to execute the development phase which is required for any further progress. Moreover, a promise of buying may give startup supplementary assurance once they can be sure that purchase will occur later. On the other hand, investments to the startups should not restrict startup from future

business activities. Hence, the stage of the startup must also be considered when discussing financials and funding mechanisms:

> *"At the beginning, collaboration between startups and corporations can be very fruitful if you get help on various things – it can be consulting, office space and providing contacts to the industry. At a later stage, the benefit or what would be fruitful, is to just pay what the solution is worth." (startup 5)*

Many startups stated that the pilots are the first stage to discuss monetary issues but also that it provides mutual proof; startups provide evidence on their technology, but additionally corporations affirm that they are serious about their intentions for work with the startup:

> *"Financial means are a way to show us that there is concrete interest [in the beginning]. There is no interest to make money out of that phase, but it's just a way of committing for the other side...not for revenue purposes, but as a commitment." (startup 4)*

> *"If the corporation sees that this [collaboration] is a good thing for them, they should take also financial liability to some extent. Not to pay everything, but perhaps ease the operations of the startup." (startup 2)*

Thus, financials and funding mechanisms create trust between startup and large corporation. To continue, in terms of market access, another challenge is the lack of credibility, which additionally prevents startup from establishing relationships to reach the market. Therefore, corporations may provide an additional sales channel, which promotes startups credibility towards the market and the potential customers. Large corporations possess a more trusted brand, which is seen as more trustworthy among customers:

> *"If you think of a product, which is either sold under our brand or under the big company's brand…from the customer's perspective, the other one is just more credible." (startup 6)*

However, the entry barriers can still remain high for the startup, a collaborative relationship with a large corporation from the specific industry may help the startup to access the market:

> *"For a startup that wants to innovate, it's really important to get access to that environment for real and access to how it works. And the industry is normally so closed off to the public that is very difficult to understand exactly what the problems are, exactly where you can create value. So without collaborating, the kind of feedback loop you need to innovate successfully is either incredibly long or just doesn't exist because you can't get access to what the industry knows and how the industry works." (startup 7)*

As illustrated above, several expectations arise among startups related to the relationship with a large corporation. However, this ambiguity requires clarification. Hence, the following expectation categories (figure 15) emerged from the interviews and these will be further utilized to indicate the thematic structure of the startup's expectations.

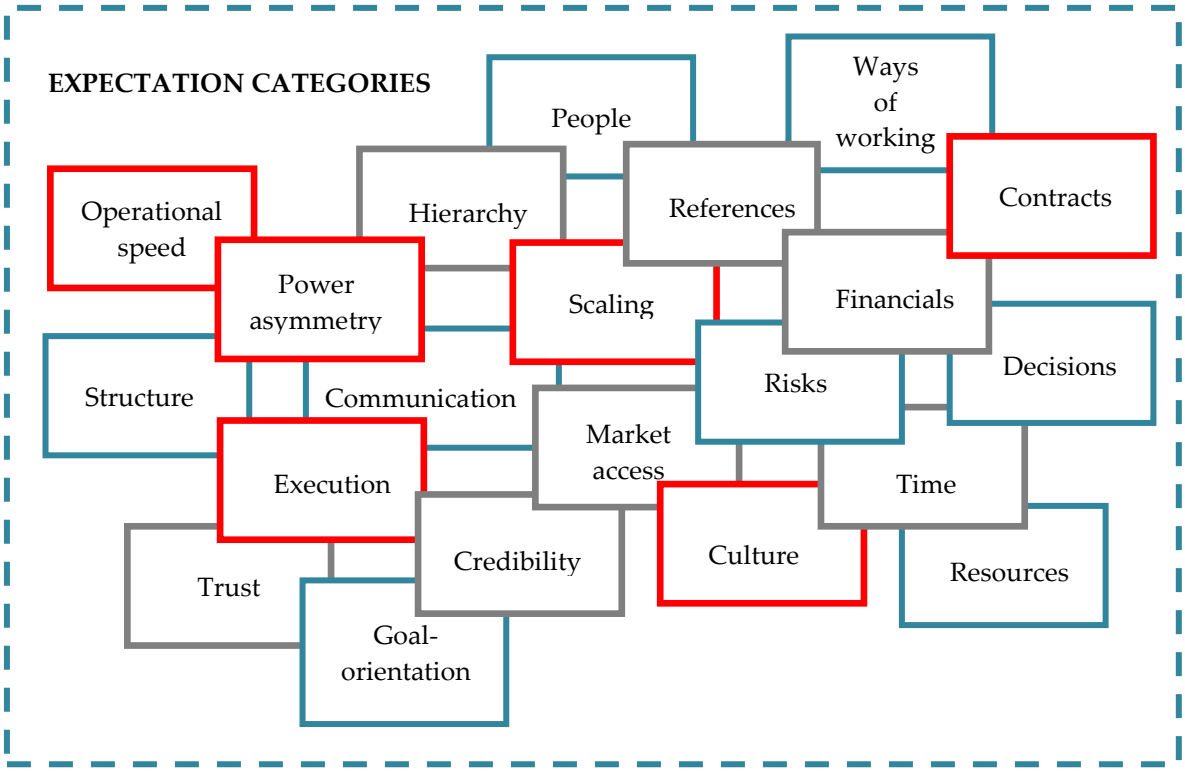


Figure 16. Expectation categories.

4.2. Understanding expectations: a pathway towards value co-creation and co-production

The organizational boundaries become blurred in value co-creation. Thus, Kohtamäki and Rajala (2016) acknowledged that the concept of the business model becomes crucial when value co-creation occurs in inter-organizational collaboration. Moreover, the literature identifies that the attitude towards business models also varies; corporations execute and act according to the carefully defined business model, whereas startups mainly look for one (Blank 2013):

> *"Patience is required on the big corporations side to understand that this is a new market, there is no proven track record here to follow, there is no guidelines here to follow. So, you need a lot of competent people to really have this big floor sides. And also patience in dealing with startups – it's important." (startup 8)*

Based on the interviews, startups expectations spread to two groups: positive and negative. The positive expectations emerged from the interviewees on perception on what is a good relationship and they tend to compare historical incidents to the present ones when aiming to form a coherent understanding of good relationships and collaboration. On the other hand, the negative expectations are often linked to the acknowledged asymmetries between startups and corporations, such as operational velocity, communication habits and trust. Especially the risk of the corporate black hole seems to link the negative expectations. In addition, startups were used to the role of having to bend to corporations need and requirements despite being hesitant to do that. To conclude, both positive and negative expectations were linked to the interviewees own past and present experiences, and the side the interviewees highlighted the most reflects whether these experiences have been positive or negative.

Fuzzy expectations are a result of unclarity in the startup-corporation relationship and most unclarity was linked to the different organization structure. Large corporations are built on organization hierarchy and align the rather heavy structure with different business units and teams. From the startups perspective, the organization structure and hierarchy hinder the progress of the startup-corporation relationship.

Additionally, the risk of losing contact with the large corporation additionally arose doubts among startups. Several interviewees added that due to changes in personnel or other internal restructuring actions within large corporations may create a communication gap and result in a corporate black hole, as described:

> *"You could just go down this corporate black hole, where you don't know who to reach out to, or you don't know whether these [projects] even exist in these various budgets around the business." (startup 7)*

Hence, the hierarchy of a large corporation is not clear to the startup. Once the startup is about to establish a connection with the large corporation, they might reach out to the wrong department and lose the entire connection:

> *"It's so dangerous to aim low in the hierarchy of the business. If you do so [and fail to establish connection], they shut down the shop and now you can't get into contact with anyone else in the company because they see that I'm connected to the other employees already - the person always goes to the connection point and then you're stuck. You're stuck in the loop of weakness and ineffectiveness. So, it really kills everything." (startup 8*)

Additionally, the ambiguity to identify the key stakeholders is a mystery among startups. This is mainly caused by organizational ambiguity and not knowing the people in the corporation.

Implicit expectations revealed that the opportunity to grow and build credibility towards the target market is intriguing for startups:

> *"Another great benefit is the kind of access to market when thinking more about the commercial partnership ... they've got representatives on every continent and they*

> *are dealing with every single [potential customer]… just it would take us years to build up otherwise that access and open up those doors." (startup 7)*

> *"It is generally hard for a startup to tap into a potential customer, to [begin to] do practical work. In our case for example ... it is very hard to proof anyone to do work for the first time in the world." (startup 2)*

The principle of establishing a relationship between startup and corporation is to match the right people in both organizations, to bridge the gaps between the two different organizations. After all, relationships are formed between people:

> *"You have to find the right type of person from that client organization ... the one who is genuinely looking for a new type of solution and is willing to take the risk… [in a sense that doing something] new is risky. Then, we have to match that person from our side to have the right kind of people taking care of the relationship." (startup 1)*

From a resource perspective, the right people are in a key role to make things happen. However, that is a great challenge for a startup to connect enough people resources to any projects:

> *"We have one client with five departments. Each of these departments requires weekly calls. And we have one person [to handle all that]. And on their side, the project has fifty people. So it becomes a sort of challenge where we run out of capacity." (startup 1*)

> *"that little company might not know that there is this department and that department [in the large corporation]… and when their employee might have five things they are solely responsible for, then there are 25 people in the big corporation, each responsible for one small part of that entity." (startup 6)*

Unrealistic expectations were formed around three themes: organizational speed, communication tools and different ways of working. Startups requirements on contracts and other governance issues may be far-fetched for the large corporation, which is more limited by law than the startup is. Thus, the large corporations' legal department protects the company from any legal or regulatory disputes (Blank 2017). Different operational velocities are an issue startups face when starting a relationship with a large corporation:

> *"The biggest challenge is speed - the speed that we work at and the speed the corporations work at. When we have a potential client to say to us, we want to work on something right away, or do this right away...generally speaking and translated into corporate language it means either this quarter or the next quarter. And for us, it means today or tomorrow." (startup 7)*

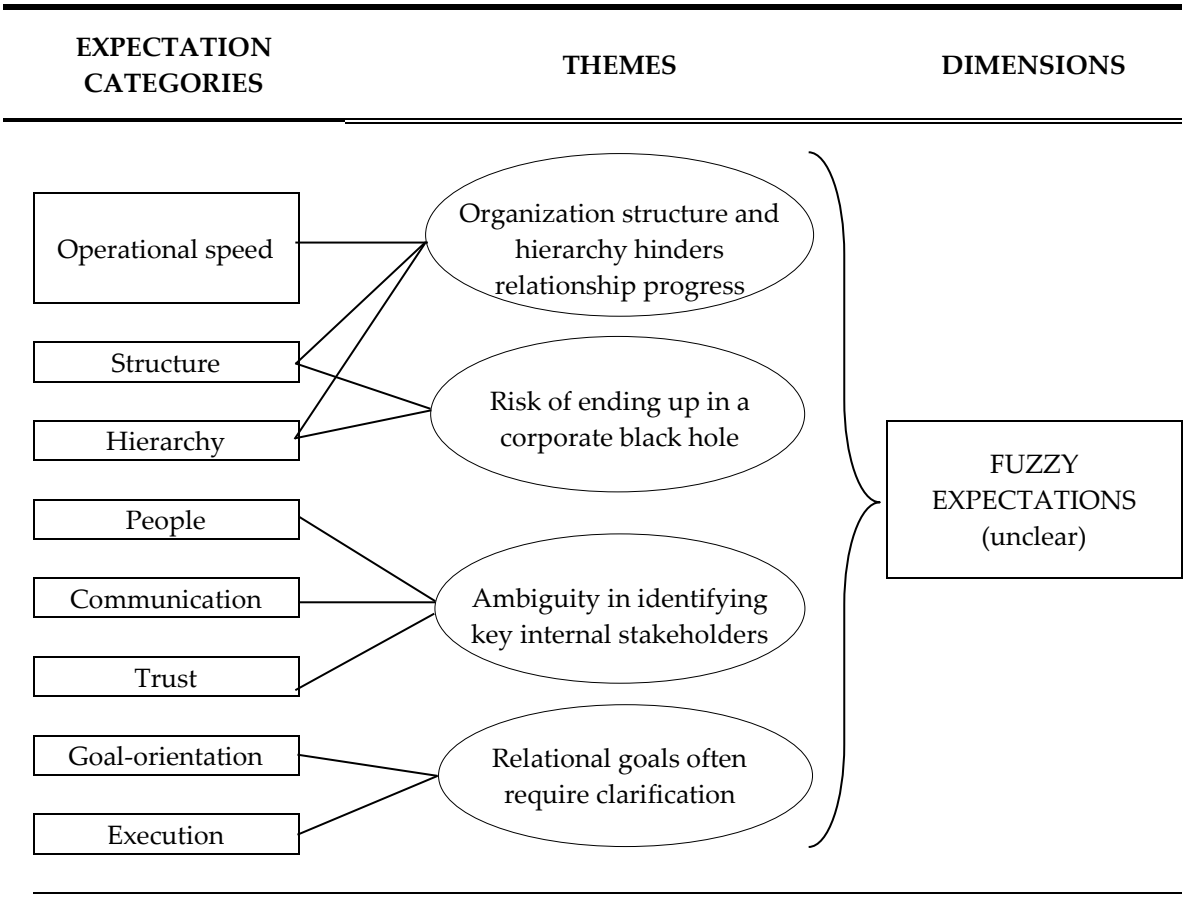
> *"Startups usually do not understand, how much it requires to do even the little things in large organizations. It is not the case that when startups are working together, they may suggest that 'hey this might take a few days from us...of the same thing for us too'. But when you are working with a big group, that few days are gone by just drinking coffee." (startup 2)*

As mentioned above, startups are small and less organized compared to their counterparts, the large corporations. This mismatch related to the sole size difference may cause communication barriers. (OECD 2018.) Thus, communication tools used by startups do not match with the tool large corporations are bind to use:

> *"There must always be communication…it solves a bit pain-points honestly. At least for us what matters is, that there is transparency and we get an answer. So we don't like a partner that goes silence. So there should always be an answer, and there should be a form of transparency and relative honesty."(startup 4)*

Next, table 9 and table 10 provide elaborate the findings of this study.

Table 9. Data structure.



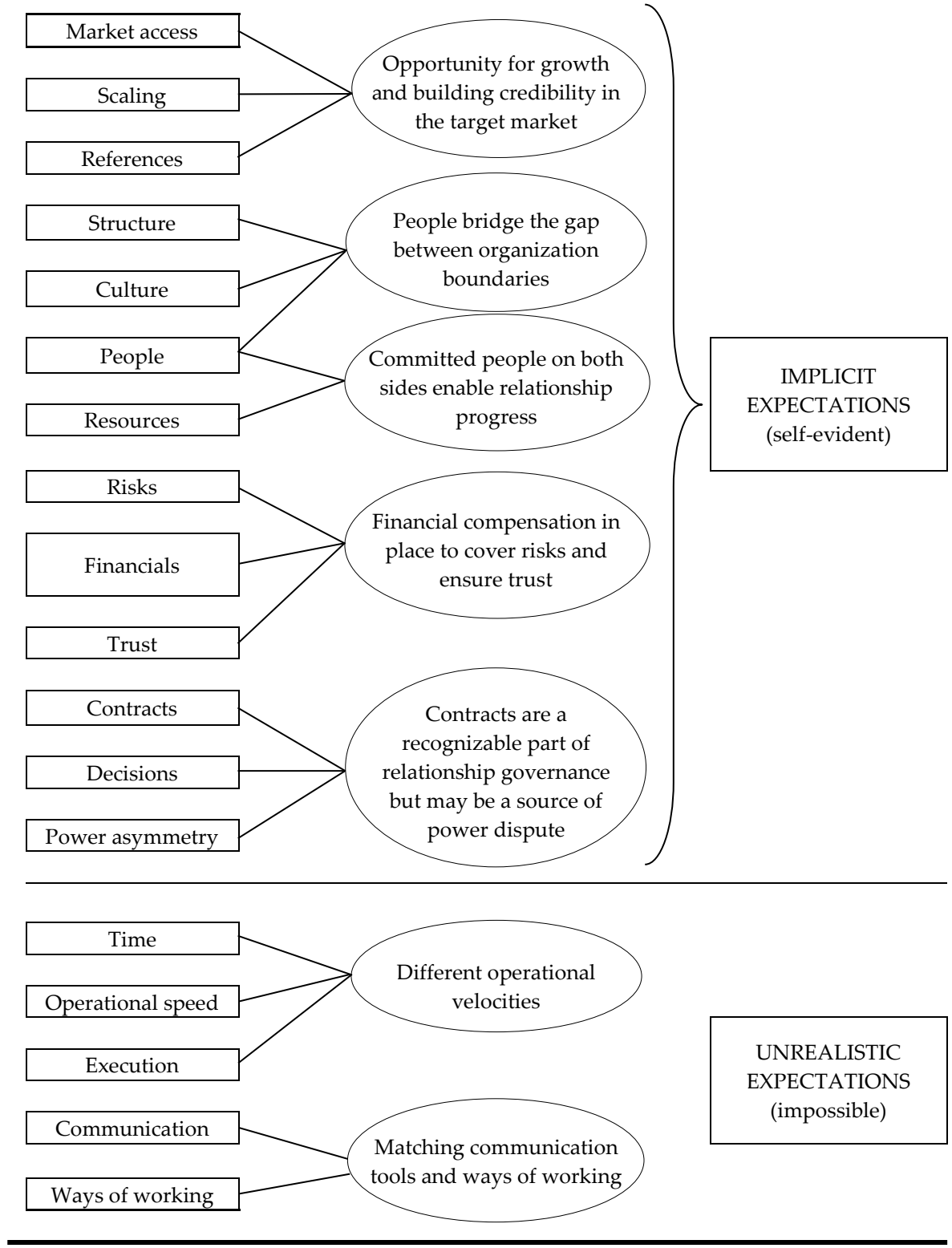

Market access
Scaling
References
Opportunity for growth and building credibility in the target market
Structure
Culture
People
Resources
People bridge the gap between organization boundaries
Committed people on both sides enable relationship progress
Risks
Financials
Trust
Financial compensation in place to cover risks and ensure trust
Contracts
Decisions
Power asymmetry
Contracts are a recognizable part of relationship governance but may be a source of power dispute
IMPLICIT EXPECTATIONS (self-evident)
Time
Operational speed
Execution
Different operational velocities
Communication
Ways of working
Matching communication tools and ways of working
UNREALISTIC EXPECTATIONS (impossible)

Table 10. Startups expectations: Additional evidence (adapted from Stigliani & Ravasi 2012).

FUZZY EXPECTATIONS	
Organization structure and hierarchy hinders progress	
A. Operational speed	A1. "We expect an answer in a week and for them, it takes three weeks. For them it's fast, but for us, it's extremely slow." (startup 4) A2. "We have a meeting next week, but we still do not know exactly when it happens since the other has so much longer or slower processes" (startup 6)
B. Hierarchy	B1. "You must understand the operating model of both organizations and accept it." (startup 2) B2. "One thing is that if that little company does not know that there is this department and that department [in the large company]." (startup 6)
C. Structure	C1. "It can become very difficult for the startup to keep up with all of [the departments] because they just don't have the resource…to navigate the organization politically." (startup 7) C2. "In a big company, making a decision is really difficult, [even though they have] the clear way to make those decisions." (startup 1)
Risk of ending up in a corporate black hole	
B. Hierarchy	B3. "You can sit there thinking if any progress is happening when actually quite a lot of work is going on in behind the scenes. If you don't see that, you sort of go down the road of chasing people in email and phone, which doesn't really help." (startup 7) B4. "It's dangerous to aim low in the hierarchy of the business. If you do so [and fail to establish connection], they shut down the shop and you can't get into contact with anyone else in the company...then you're stuck in the loop of weakness and ineffectiveness. So, it really kills everything. " (startup 8)
C. Structure	C3. "You could just go down this corporate black hole, where you don't know who to reach out to, or you don't know whether these even exist in these various budgets around the business." (startup 7) C4. "What needs to be established is, that the big corporation understands the business model" (startup 8)

Ambiguity in identifying key internal stakeholders	
D. People	D1. "It is very easy for these things just to come to nothing, particularly if there isn't already a strong personal relationship with the people who are doing it. I think that's often overlooked, and it's certainly something that you can't systemize." (startup 7) D2. "When you move forward with combining the two [stakeholders], and you build up several email discussions [with them] and then somebody just comes and says 'no way, this is not possible to do'. Just because they do not understand the starting point of the collaboration. So if you do it together straight from the beginning...then the joint plan is defended." (startup 2)
E. Communication	E1. "Nothing can be improved unless the communication is clear… such straightforward dialogue is the key thing." (startup 3) E2. "We don't like a partner that goes silence. We had this situation where they don't like the question we propose. So there should always be an answer and there should be a form of transparency and relative honesty." (startup 4)
F. Trust	F1. "It is not clear if the corporation is talking to us because they are curious or because they have a use case." (startup 4) F2. "A small company, when it wants to be quick, it is vital to get that thing forward, but rather to give too much information and that big is often not giving even the necessary information." (startup 6)
Relational goals often require clarification	
G. Goal-orientation	G1. "Some corporations don't really know what they want themselves." (startup 8) G2. "All the time it must be very clear that what's going on and why, and what both sides get out [the relationship]." (startup 3)
H. Execution	H1. "If the initial goals just don't align, it will all come to nothing. That is always a good sort of gate to move forward with something or not." (startup 7) H2. "When you develop something that has not been invented, for a need that exists, then there is a longer way ahead. Then you have to be really careful and make shorter steps." (startup 2)
IMPLICIT EXPECTATIONS	
Opportunity for growth and building credibility in the target market	
I. Market access	I1. "For a startup that wants to innovate in this sector, it's really important to get access to that environment for real and access to how it works." (startup 7)

	I2. "Large corporation has access to the customers and the brand credibility." (startup 6)
J. Scaling	J1. "If you want to conquer the world on your own, then you would need to establish sales locations on your own. That just takes a certain amount of time." (startup 6) J2. "When you find the right partner, then usually it is not just [present] in one country, but when it is the right type, a bit like the medium or… so they usually are present in the surrounding countries as well... so they can cover a larger area." (startup 2)
K. References	K1. "One goal is to get references. If you get a big customer, it is itself a big reference that will most likely result in something new." (startup 1) K2. "References always have another side to them. Most scaleups try to get into a lot of corporates, share their reference and use that in marketing." (startup 5)
People bridge the gap between the organization boundaries	
C. Structure	C5. "When the partner is an established company of any size, they already have their procedures in place and you have to use that…there is no choice." (startup 4) C6. "[The relationship] always depends on how well the [large] company is structured internally as well as integrated" (startup 5)
L. Culture	L1. "Quite often some corporates can be big, they have the money, and they will define what you will get..…it's not an equal relationship you are going into." (startup 5) L2. "Usually in startups, you decide on things quickly and then start doing. Quite easily it builds the frustration on why won't these things go forward. And on the other hand that frustration may arise in the corporation as well, that why are the startups always acting like that." (startup 2)
D. People	D3. "Create that joint picture of the collaboration together. So do not create two pictures of the collaboration, and then try to enforce it to fit." (startup 2) D4. "It's important that the startup has people in place and that can perhaps bridge that gap, and perhaps understand how large corporate works and how it operates." (startup 7)

Committed people on both sides enable relationship progress	
D. People	D5. "These things are always driven by people and actually more than anything else, being able to form a good relationship with a potential partner is the best way to ensure that something comes of it." (startup 7) D6. "You need to find the one guy or girl who is the champion in the business, who really is sort of the connecting tissue between the actual decision makers with the budget." (startup 8)
M. Resources	M1. "We are innovative as a startup, but we don't necessary have all the recourses as the corporations might have. On the other hand, corporations have a lot of experience." (startup 5) M2. "We seek to tap into the know-how and resources we do not possess ourselves." (startup 2)
Financial compensation in place to cover risks and ensure trust	
N. Risks	N1. "Every pilot you take, it has to be very carefully considered. Because it might be a loss for the startup." (startup 8) N2. "What are the risks for the large company, because those are relatively small money in such experiments compared to the company's turnover." (startup 1)
O. Financials	O1. "You build security and continuity through funding since then you do not have to think of both working and seeking funding." (startup 2) O2. "Financial means are a way to show us that there is concrete interest. There is no interest to make money out of that phase, but it's just a way of committing for the other side. So they are definitely important. Not for revenue purposes, but for as a commitment." (startup 4)
F. Trust	F3. "How to remove that fear factor [from the relationship] that the corporation may eventually decide to just ignore the startup." (startup 6) F4. "It should be a sort of non-predatory setup. There is definitely a paranoia in the startup community when you try to collaborate with big business." (startup 7)
Contracts are a recognizable part of relationship governance but may be a source of power dispute	
P. Contracts	P1. "The contracts are not always the stumbling block but the truth is… could it be a little lighter [approach]. The documents must always be in place...that's never a problem. It's just that instead of delivering like 20 documents, could a simpler version be enough." (startup 3)

	P2. "We refuse to do concrete work without any form of...even if it's just a contract for a pilot or whatever, there must be some form of an agreement." (startup 4)
Q. Decisions	Q1. "The biggest problem with big companies is that there is always a need for an additional person, or someone is missing so we can't decide on this." (startup 1) Q2. "What is really important … is [to have] a clear interface, [about] who is responsible, who can make the decision - just such normal interaction. Especially when talking about a big firm… who then really decides what to do… the clearer that gets, the better." (startup 3)
R. Power asymmetry	R1. "In negotiations, the bigger companies misuse their power - that if you want to be our supplier, you have to do this and that for free." (startup 1) R2. "A lot of corporations have their own programs, and they say that you have to be onsite for three months and you have to do a challenge with them. If you win, we integrate you." (startup 5)
UNREALISTIC EXPECTATIONS	
Different operational velocities	
A. Operational speed	A3. "We had scheduled a meeting for next week, but we still do not know when we will have it, because the other has so much longer processes." (startup 6) A4. "For as long we think that large corporations are fast, they are always significantly slower than what a startup needs." (startup 4)
S. Time	S1. "If corporations want to introduce new things, new ways of thinking, I think they need to allow space for creativity and use the time for that. Quite a lot of them don't do that." (startup 5) S2. "Usually in startups, you decide on things quickly and then start doing. Quite easily it builds the frustration on why won't these things go forward. And on the other hand that frustration may arise in the corporation as well, that why are the startups always acting like that." (startup 2)
H. Execution	H3. "The best result is achieved if we sit on the driver's seat - that this would be the plan, these things are done at these stages. If we trust the customer will do it, then they will not proceed." (startup 1) H4. "When the partner is an established company of any size, they already have their procedures in place and you have to use that…there is no choice." (startup 4)

Matching communication tools and ways of working	
H. Execution	H5. "Startups usually do not understand, how much it takes to do little things in large organizations. It is not the case that when startups are working together, that they may suggest that 'hey this might take a few days from us...of the same thing for us too'. But when you are working with a big group, that few days are gone by just drinking coffee." (startup 2) H6. "When we have a potential client to say to us, that they want to work on something right away or do this right away...but generally speaking, and translated into corporate language, it means either this quarter or the next quarter. And for us, it means today or tomorrow." (startup 7)
E. Communication	E3. "It's a bit difficult between large corporations and startups because there is really a huge gap in terms of the type of communications." (startup 4) E4. "A small company, when it wants to be quick, it is vital to get that thing forward, but rather to give too much information and that big is often not giving even the necessary information." (startup 6)
T. Ways of working	T1. "[Startups may] do things upfront, even though every stamp and approval is not secured on the corporation's side – sort of [get] a handshake with the right people, and take care of the paperwork later." (startup 2) T2. "Large corporates and large enterprises are often quite slow to innovate." (startup 7)

4.3. Synthesis

The insights gained from the findings presented above are next drawn together to outline a practical view to value co-creation in startup-corporation relationships. These findings are consistent with the general knowledge of startup-corporation relationships. Despite the significant asymmetries between startup and large corporation, the benefits of a mutual relationship become apparent (Bannerjee et al. 2016). Indeed, startups may be a source of external innovation for large companies

(Hogenhuis, Van Den Hende, and Hultink 2017), and both sides may learn from each other.

Startups are exceptional companies that have reached a valuable point as businesses. Even though they may partner with incubators, venture capitalists, universities and large corporations (Spender et al. 2017), it is the large corporation that can open their sales channel to the startups technology and provide a solid customer base. Thus, figure 17 summarizes the theoretical framework for this study.

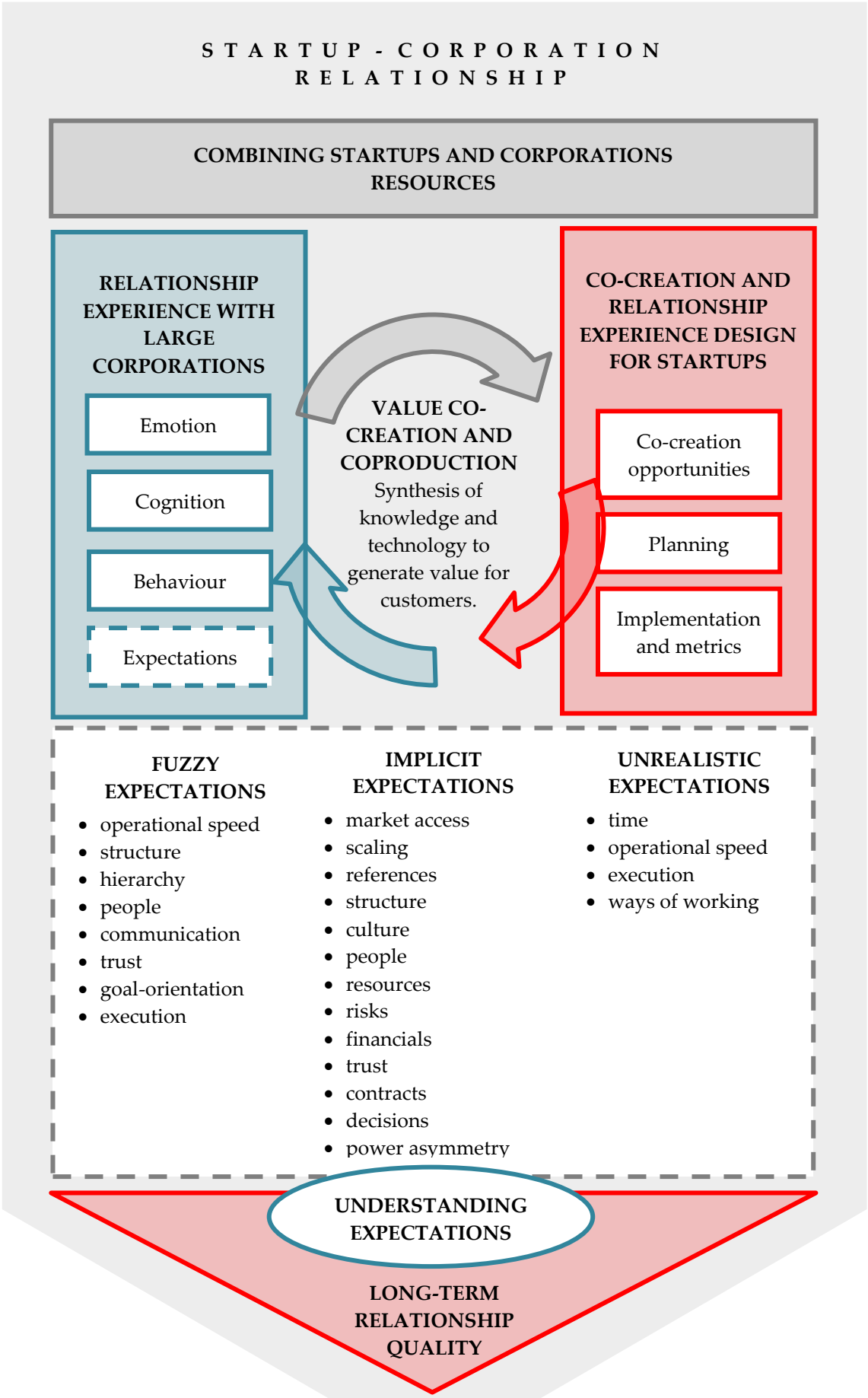


Figure 17. The theoretical framework of the study: understanding expectations.

5. DISCUSSION

This study offers several novel insights on startups expectations in startup-corporation context. The following research questions were established earlier for this study:

What kind of expectations startups have in a startup-corporation relationship?

RQ1: How the startups expectations influence a startup-corporation relationship?

RQ2: How value is co-created and coproduced in such relationships?

Thus, this section summarizes the main findings of the literature review. In addition, this section includes recommendations for managerial implications, limitations of the study and suggestions for further research.

5.1. Theoretical contributions

The purpose of this study was to create a more comprehensive understanding of value co-creation and coproduction in startup-corporation relationships by understanding startups expectations. This study set out to review the current state of startup-corporation relationships and what kind of expectations startups have when entering this kind of relationship. The theories applied to identify expectations towards startup-corporation relationships were supported by the empirical framework. The majority of the expectations were related to the asymmetries among

startup and large corporation, but additionally to the several uncertainties regarding the novelty of operating in such a relationship.

The present study contributes to the inter-organizational relationship literature by providing evidence of startup-corporation relationship. Observations on the characteristics of a relationship (Peppers & Rogers 2017: 46–48) confirmed that the lack of one or more characteristic resulted in a negative perception of a relationship in startup-corporation context. Especially, the ongoing benefit was often missing in this context according to the interviewees. Additionally, this study contributes to the S-D logic literature by analysing how value is co-created and coproduced in startup-corporation relationships. This study provided evidence that value co-creation and coproduction form a synthesis of knowledge and technology to generate value for customers in startup-corporation relationship.

Additionally, the fear of corporate black hole or losing the single point of contact to the corporations seem to shadow the startup-corporation relationship. This view is supported by literature, where for example Katzy et al. (2013) identified that partners have the demand for collaboration support and process management. This intermediary role may, however, shift from neutral facilitation to deeper engagement according to Katzy et al. (2013) The case company has identified this shift as well, and therefore the search for a scalable model for managing startups is supported by the literature.

In conclusion, as the objectives of this study were to (1) identify expectations that characterize the startup-corporation relationship, *(2)* recognize the most critical

expectations, which should be aligned when a large corporation is building a relationship with a startup, *(3)* identify what kind of value startups seek in startup-corporation relationships, and (4) processes related to value co-creation and coproduction. To summarize, this study has succeeded in reaching the above-mentioned objectives, especially in the light of portraying the importance of relationship expectations in startup-corporation relationship and how they may influence value co-creation and coproduction.

5.2. Managerial implications

This study presents important implications for managers who are involved with startup activities and the importance of understanding startup expectations was emphasized thoroughly in this study. The findings on fuzzy, implicit and unrealistic expectations suggest the following practices for managers in the context of startup-corporation relationship management (figure 18).

First, by focusing on the proper introduction of involved people and the organization structure, managers can ensure focused start for the startup-corporation relationship. Moreover, the relationship goal should be clearly aligned, potentially through a specified use case, which was a preferred way among startups according to this study.

Secondly, by revealing the market potential, financials and funding mechanisms, and other required resources, managers may shift the startups implicit expectations to explicit expectations. For example, the potential form of commercialization

should be set early on, since it lays the base for future collaboration interest on both sides.

Thirdly, by calibrating timeline, progression and use of communication tools, managers may translate startups unrealistic expectations on speed and communication tools towards more realistic ones. While facilitation of external relationships requires time and attention from managers (Alexiev, Volberda, & Van den Bosch 2016), the provided framework may act as a tool for managers to map the startups expectations that may affect the startup-corporation relationship.

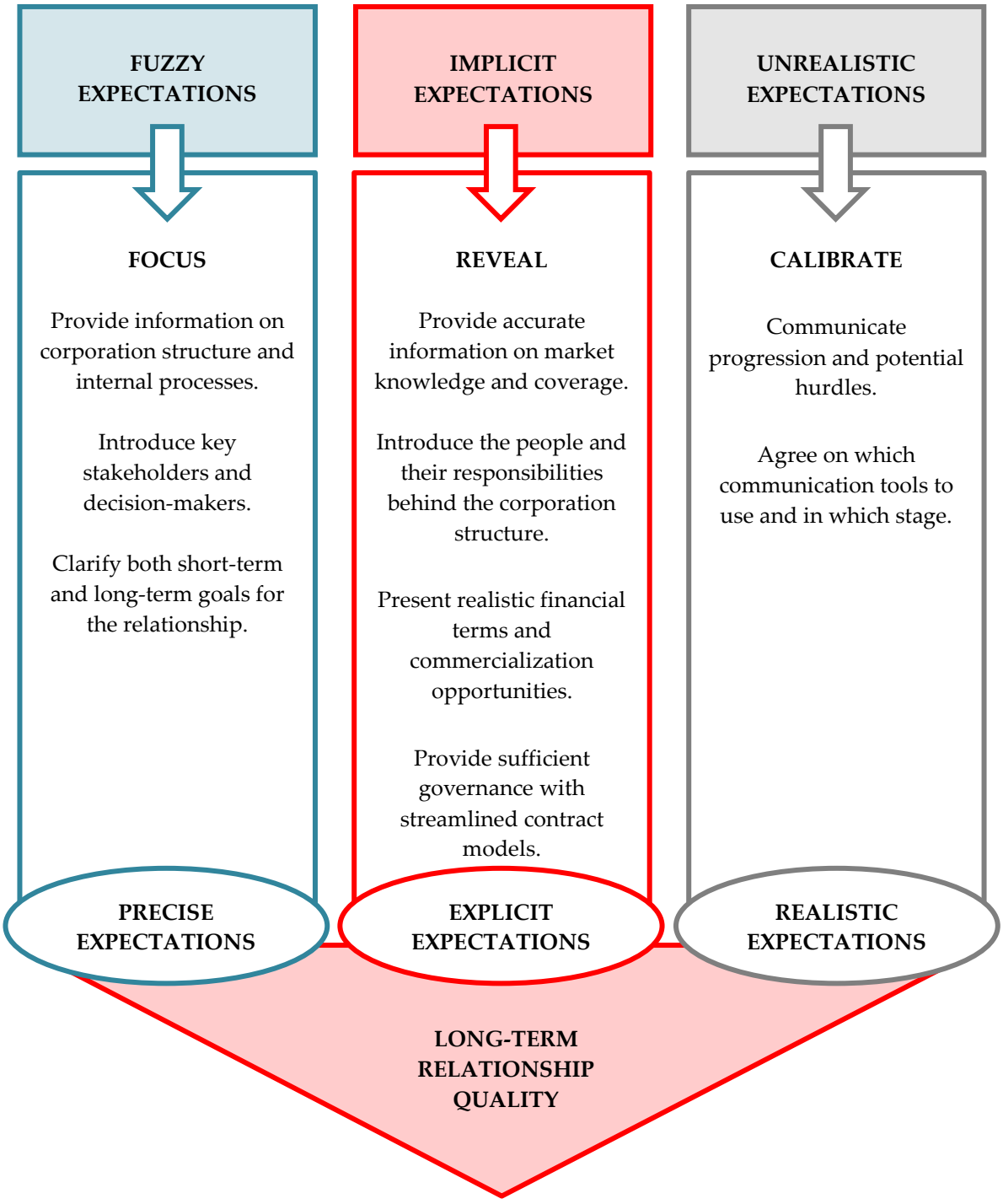


Figure 18. Managerial implications.

5.3. Limitations

This study, like every study, has limitations that should be noted. First, relatively small sample size may have caused limitations for this study. Thus, more interviews or a second round of interviews with the selected startup representatives could have brought additional in-depth knowledge for the study.

Second, this study focused on startup-corporation relationships and observed the relationship from the startups perspective. For instance, the interview focus was mainly in startups even though collaborative relationships include several other stakeholders as well. Therefore, it must be noted that this study lacks dyadic data, hence the perspective of the corporation was limited due to the scope of the study.

Thirdly, this study was conducted as a master's thesis project during a predefined period of four months. Thus, some limitations may have evolved as a result of following such a prompt time frame.

Another limitation may be that, the startups were operating mainly within an industrial segment and in B2B context. Thus, for example, universities, non-profit organizations and B2C relationships were excluded from the study scope. Moreover, the study was conducted in collaboration with the case company, thus applying the findings to other large corporations was not part of the objectives of this study. To conclude, a comprehensive application of this study lies yet uncovered but gives direction to future research.

5.4. Suggestions for future research

This study focused on giving a comprehensive understanding of value co-creation and coproduction in startup-corporation relationships in the form of a literature review. While the future suggestions may be limited due to the narrow number of interviewees and the scope of the study, several potential directions for future research followed by this study.

This study captures the empirical evidence about how startups perceive the relationship with a large corporation. However, the relational expectations were studied only from startups perspective. This indicates that there is scope for future research to include also the large corporations' expectations to the examination. Inclusion of for example the case company managers and their expectations towards collaborating with startups could provide interesting observation options for further research. Moreover, a more complete picture of the startup-corporation relationship could be created if expectations from both sides of the relationship were collected and analysed.

Thus, future research is needed to search for concrete patterns in successful startup-corporation relationships to determine further which factors truly enable these asymmetrical business relationships to flourish. Perhaps a similar study could be adapted to another industry or region. Another interesting path would be to study startups expectations at a global level and take startups from different continents to the analysis.

For example, mapping the relationship progression with service blueprint technique (Bitner et al. 2008) might distinguish better the potential obstacles between startup and large corporation. Additionally, SERVQUAL-questionnaire (Parasuraman et al. 1988) could provide a thorough understanding of general startup engagement quality compared to the startup satisfaction on engagement. Since these relationships are unique and contain uncertainties, future study is definitely needed to enable consistent view to startup-corporation relationships and value co-creation and coproduction in such relationships.

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APPENDICES

Appendix 1. Interview questionnaire

INTRODUCTION

Could you first tell about your position, role and responsibilities in the startup?
Could you describe the stage of the startup you are working in?

1st PART – COLLABORATION AND INTER-FIRM RELATIONSHIPS

What kind of experiences do you have on collaborative relationships with other company?
What kind of collaboration models the startup has engaged with earlier? Why? Why not?
How the relationship was facilitated?
What kind of goals startups aim to fulfil with a collaborative partnership with another company?
What kind of tools or practices you see valuable when establishing collaborative partnership with another company?

2nd PART - COLLABORATION WITH LARGE CORPORATIONS

Startup-corporation collaboration is a form of asymmetric partnership. What kind of challenges do you identify in this kind of set up?
Why would the startup seek collaboration with large corporations?
Please describe what positive impacts collaboration with a larger corporation could have on a startup?
Please describe what negative impacts collaboration with a larger corporation could have on a startup?
How would you describe a successful startup-corporation partnership?
The following themes have been widely identified as key factors in collaborative partnerships. How would you describe the value of these themes for the success in startup-corporation collaboration?

- Financing systems: funding mechanisms
- Governance systems: formal procedures (e.g. contracts, agreements), division of liabilities
- Knowledge sharing & creation: trust, access to market or customers
- Communication: fluency, accuracy

3rd PART – EXPECTATIONS PER ONBOARDING PHASE

Describe in your own words an example pathway from initial contact to an actual project with a corporation.